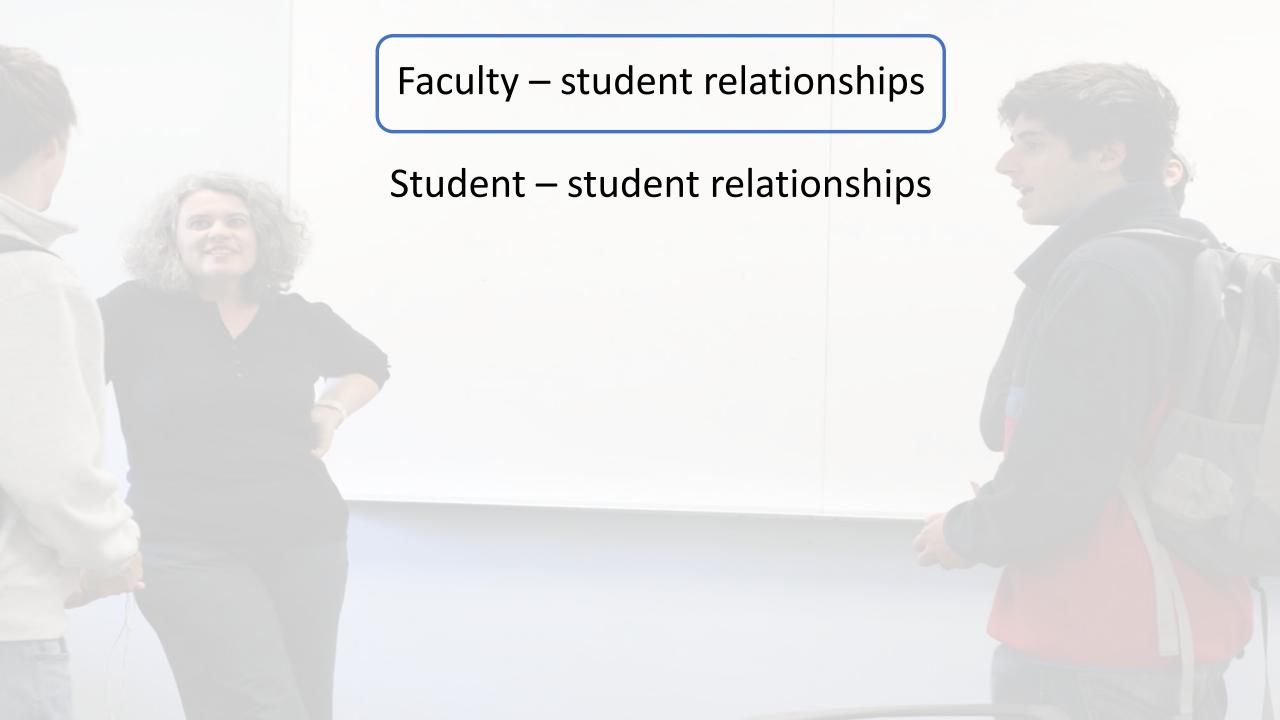
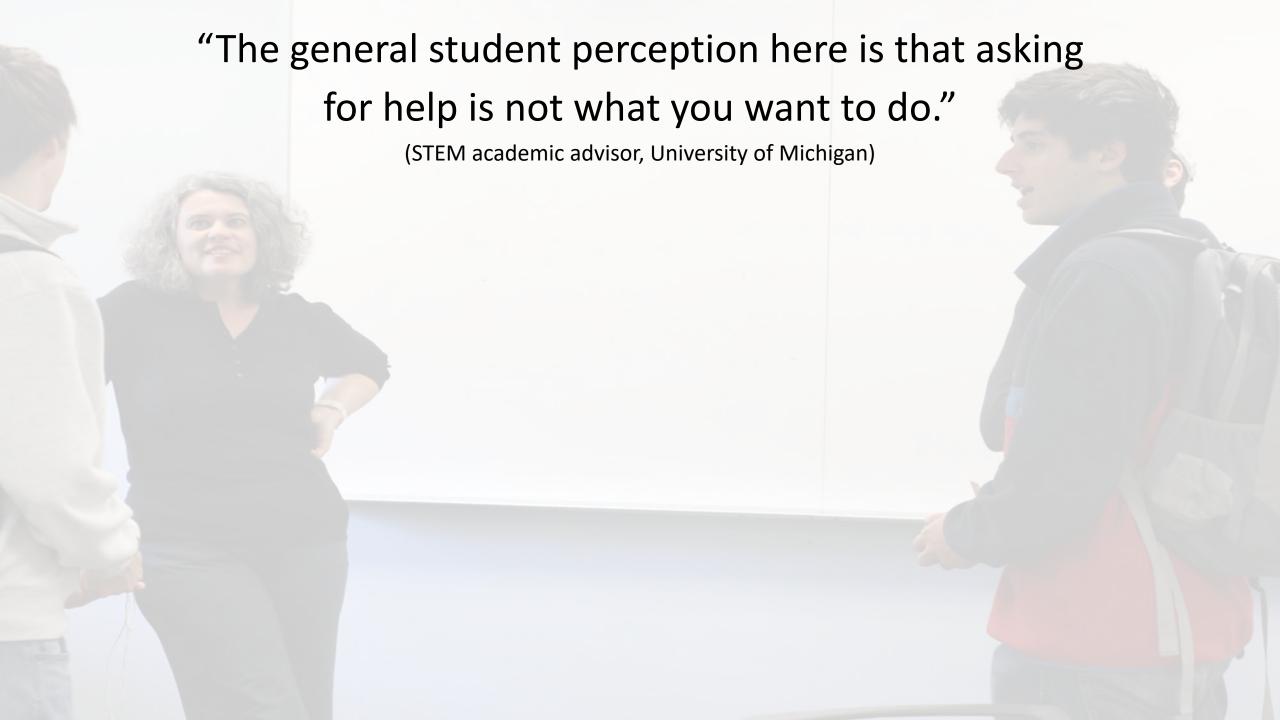


Peter Felten

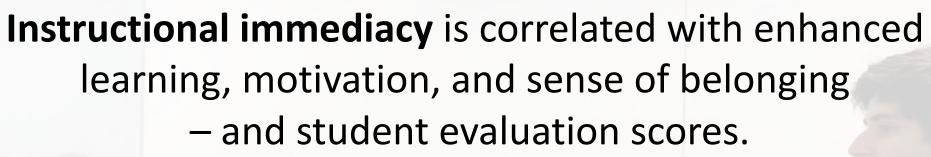
Center for Engaged Learning
Elon University





"Once your students recognize that you care about them, and about where they come from, and about their goals and what they're trying to accomplish, then you have a strong foundation for teaching and learning."

(Matthew Smith, California State University Dominguez Hills)



(Cooper et al., 2017)

2 stories2 examples

"My professor made something as boring as rocks interesting. The passion she had—she wasn't just giving me information—her subject was something that she loved. And the way that she explained it, for some reason, I wanted to learn everything about rocks. The most important thing is that the class became a community. She made us interact with each other and with the subject. It just came together because of her passion."

(José Robles, Nevada State College)

"At the start of class one day about half-way through the semester, my first year writing prof said to class: 'Near the end of the semester, one of my best students is going to stop coming to class because they feel overwhelmed with all the pressure and they are really scared that they are going to do poorly. I want to assure that student to keep coming to class, even if you missed an assignment or feel like you didn't do well on an essay, because it's going to be okay. Come see me, don't just disappear."

(Taylor Schlesinger, LaGuardia Community College)

Persistence Project, Oakton Community College

- 1. Learn student names;
- 2. Articulate high academic standards paired with supports for when student struggle;
- 3. Return an assignment with formative, success-oriented feedback;
- 4. Meet one-on-one for ~10 minutes.

"I've been teaching here a long time, but when I added the one-on-one conferences, it transformed me and my teaching. I'm not just getting to know the students with whom I might have the greatest affinities; instead, I'm getting to know all of my students, and there's a big difference between those two things."

(Holly Graff, Oakton Community College)

Light-Touch Formative Feedback

"By conveying beliefs in students' abilities to succeed in the course and in college more generally, college instructors have an important way to directly and indirectly contribute to college success: directly through the intended transfer of content knowledge and/or skills and indirectly through boosting students' sense of self-efficacy."

(Carrell, Kurlaender, & Bhatt, 2019, p. 17)

Dear XXX, [students earning B]

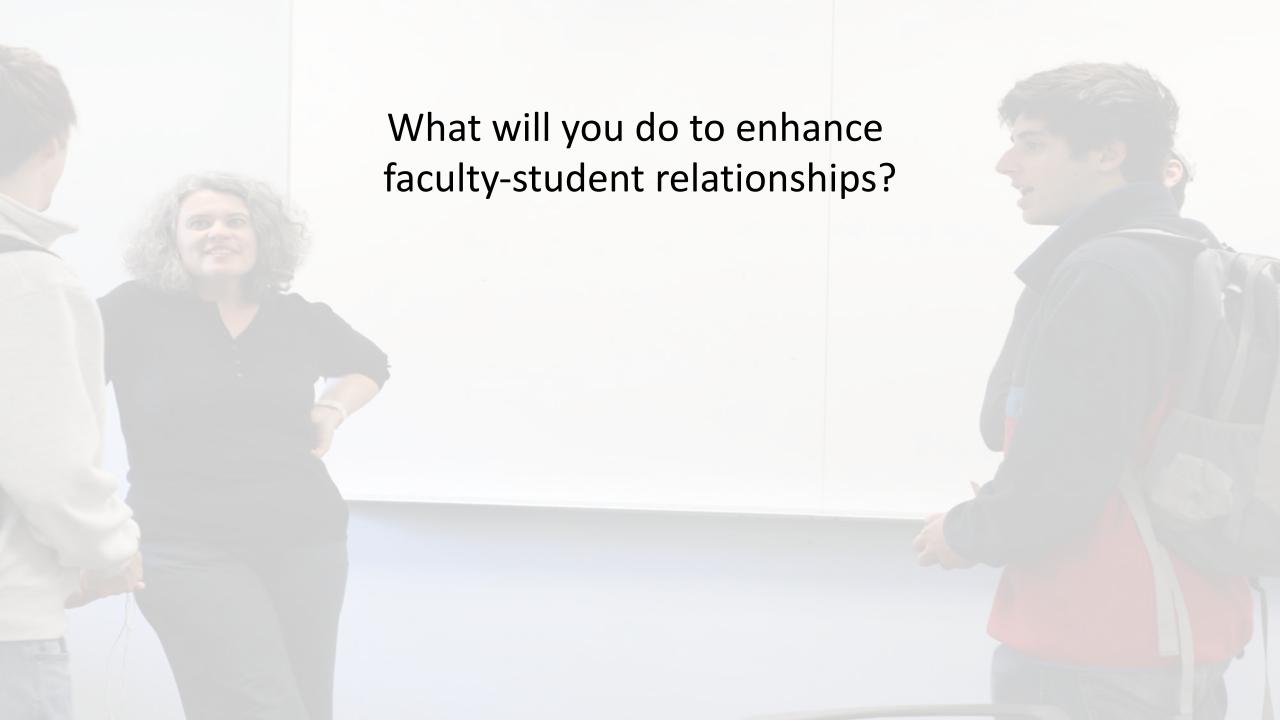
As we approach mid-term, I'm writing to give you some quick feedback.

You've done particularly well so far on [e.g., midterm, quizzes, homework]. Keep up the good work on that!

I encourage you also to take advantage of [e.g., online formative quizzing] to be even more prepared and successful in the second half of the term.

If you have questions or would like to chat, stop by my office hours [details].

See you in class Monday -



Faculty – student relationships Student – student relationships "I was super shy when I first came to campus and I did not want to join in anything. I would go to class, sit down, and look as unwelcoming as possible. I didn't want anyone to sit next to me."

(Alexa Oleson, University of Iowa)

"These horizontal peer-to-peer relationships are the ones that keep students - especially students who are marginalized from letting each other fail."

(David Scobey, Bringing Theory to Practice)

3 practices



Closing the Achievement Gap in a Large Introductory Course by Balancing Reduced In-Person Contact with Increased Course Structure

Sat Gavassa ☑, Rocio Benabentos, Marcy Kravec, Timothy Collins, and Sarah Eddy



Closing the Achievement Gap in a Large Introductory Course by

Balancing R

Sat Gavassa M, Rocio Ber

TABLE 1. Comparison of course formats showing that the hybrid format had the highest number of active-learning assignments, with activities due online similar to the online format, plus additional in-class activities, while the face-to-face format had the highest contact time per week, with students mostly passive in class, listening to the instructor lecture and occasionally answering iClicker questions

	Online	Hybrid	Face-to-face
In-person contact time: minutes per week	0	75	150
Course structure	Moderate	High	Moderate
Preclass LearnSmart assignments	Optional	Required	Optional
In-class iClicker questions per class period	NA	≤15%	≤15%
Peer discussions per class	Online discussion boards	≥60%	≤10%
Graded review assessments	Online quiz	Online quiz and in-class IF-AT	Online quiz
Time lecturing in class	NA	≤10%	≥80%
Time online for video lectures	75 minutes	75 minutes	NA



Closing the Achievement Gap in a Large Introductory Course by Balancing Reduced In-Person Contact with Increased Course Structure

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"Even though the face-to-face format had the highest contact time, it also resulted in the lowest performance."

"Although the hybrid and online courses had identical online resources, the hybrid had additional in-class active-learning exercises done in teams and with support from undergraduate learning assistants and the instructor....Studies have found that group learning is particularly beneficial for underrepresented students."

Two-stage exams

55 minutes: Individual exam

5 minutes: Turn in individual exam, form groups

30 minutes: Group exam (turn in one copy)

Individual exam: 80-90% of total exam grade

90 minutes

Group exam: 10-20% of total exam grade

Group exam includes some questions from the individual exam and some extensions of those questions.

(Wieman, Rieger, & Heiner, 2014)

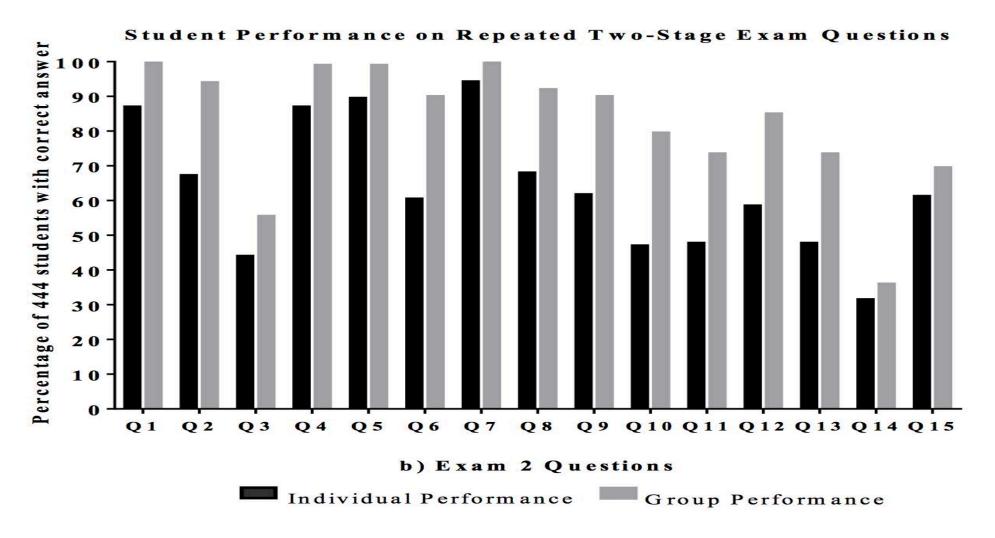
Question

You and your little sister are out in the snow on a sled that has a mass of 11 kg. Your sister, who weighs 29 kg, is sitting on the sled and you want to push her along. You start applying a horizontal force and initially the sled doesn't move but you slowly increase your force until, suddenly, the sled does move. You maintain the same force that you were applying when the sled started moving for the next 5.0 s after which you let go.

(Assume that the kinetic friction coefficient is $\mu_k = 0.02$ and the static friction coefficient is $\mu_s = 0.08$ in this case.)

Individual Part	Group Part
a) How far do you have to run if you apply the force for 5.0 s?	(Converting calculation to reasoning and representation with graphs.)
 b) What is your sister's speed at t = 5.0 s? c) After letting go, how far do your sister and her sled move until she is stationary again? (In case you could not solve part b, assume that her speed is v = 2.5 m/s at t = 5.0 s.) 	 a) Draw a qualitative diagram that roughly shows the net force acting on the sled as a function of time. (Qualitative means that it explains the overall behavior without using exact numbers.) b) Draw a second qualitative graph of the acceleration of the sled as a function of time. c) Draw a third qualitative graph of the velocity of the sled as a function of time.

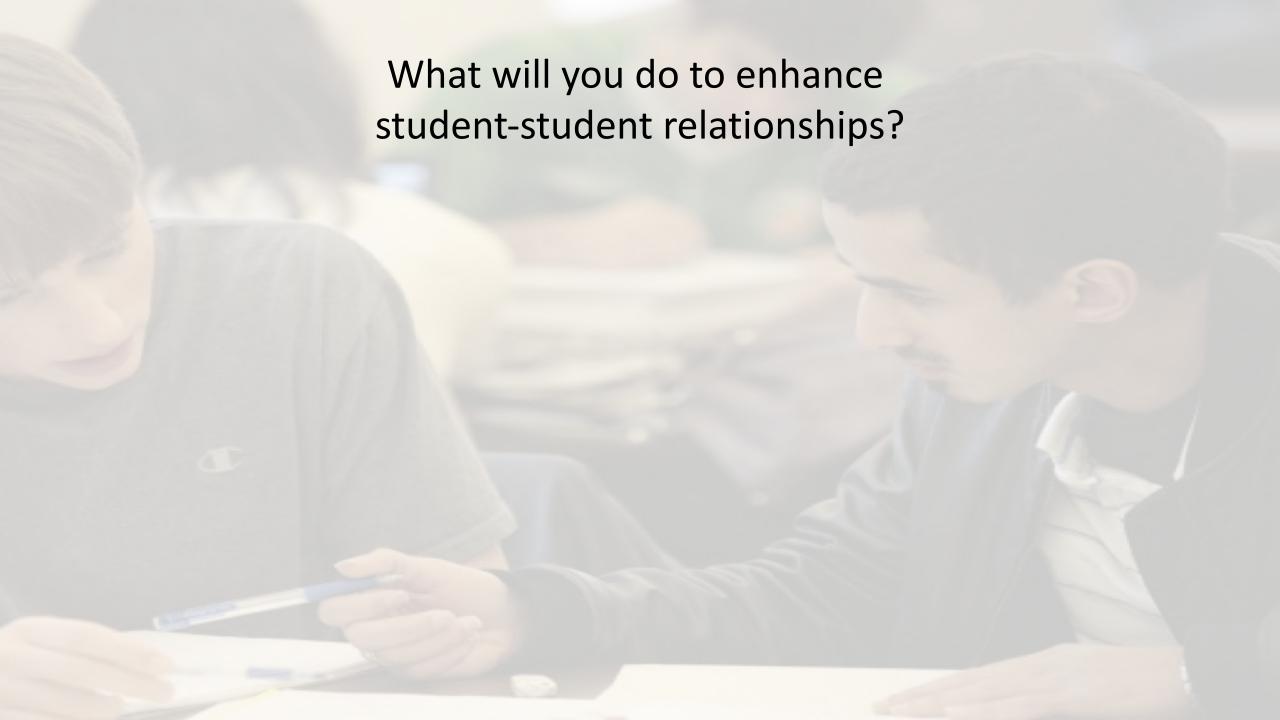
(Wieman, Rieger, & Heiner, 2014)



(Fournier, Couret, Ramsay, & Caulkins, 2017)

Structuring groups to support all students

- 1. Assign students to groups and help them establish relationships within groups by
 - (a) keeping the same group for the term, and
 - (b) purposely including time and activities to encourage group bonding.
- 2. Structure group interactions to prevent any individual from dominating by
 - (a) having well-defined roles that rotate among group members, and
 - (b) assigning complex and open-ended challenges.



Relationship-rich experiences are a primary means to enhance learning and equity in higher education.

"Some instructors realize your true self even before you do. That was especially true for me with Professor Marian Staats. She would say to me - 'When you get published. When you earn your Ph.D. When you become a professor.' - things that I would not have realized or even imagined would be possible for me. That type of conversation is very inspiring and very supportive, especially for first-generation students or students who might just be having a hard time transitioning to college life."

(Gina Roxas, Oakton Community College)

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