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Developing mindful, collaborative, and resilient physics students through regular reflection and empathetic feedback[1]

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Low retention in the sciences is due in part to students' perceptions of grading practices as harsh and of faculty as unapproachable. Improving retention of science students therefore requires the creation of educational spaces where students feel better supported in their development as learners. To this end, we are piloting a system that facilitates regular student reflection and personalized instructor feedback to support students in becoming mindful, collaborative, and resilient scientists. Students choose one of four topics to guide their reflections, and instructor responses aim to acknowledge and empathize with students' difficulties, recognize their efforts to improve, and provide them with additional resources whenever appropriate. In addition to fostering a supportive learning environment, this system further acts as a vehicle for continual formative assessment, enabling instructors to modify the learning environment to respond to students' needs in real time. In this talk, we report preliminary results on how regular reflection and feedback shape students' experiences in a physics course and how students' reflections evolve over time.

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