

STEM - FIT

FORUM FOR INCLUSIVE TEACHING

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CONCEPT

Grading for Equity

The COVID-19 pandemic has forced instructors to reconsider their instructional practices as they strive to promote engagement and motivation, as well as address inclusion, equity, and belonging in the virtual environment. In an effort to create fair and meaningful measurements of learning, many faculty are re-thinking their assessment strategies and overhauling their grading practices. Susan D. Blum's, "Ungrading: Why Rating Students Undermines Learning (and What to Do Instead)" and Joe Feldman's "Grading for Equity: What It Is, Why It Matters, and How It Can Transform Schools and Classrooms," are two top-sellers that approach similar goals from different perspectives. In this edition of STEM-FIT, we feature the work of Dr. Vera Margoniner in the Department of Physics & Astronomy, as she transforms her grading scheme based on Feldman's model.

TIPS AND TOOLS

The strategy outlined in "Grading for Equity" is based on research that reveals deflated grades for certain demographic groups when points are awarded for homework, participation, group work, etc. In Griffin's Ph.D. dissertation (see References), there was less disparity in grades for high school students with disabilities, those receiving free or reduced lunch, and those identifying as male when grades were based on assessments only and excluded points awarded for completion or participation. Furthermore, a subset of students passed classes despite failing to receive passing grades on the assessments of learning.

Feldman suggests using the following principles for equitable grading:

- Grading that is more mathematically accurate, like using a 0-4 scale
- Grading that values knowledge, not environment or behavior:
 - Focus on individual learning outcomes
 - Eliminate extra credit and participation grades, as well as late penalties
 - Separate assessment from learning (homework for learning/formative assessment)
 - Allow assessment retakes
- Use grading practices that support hope and a growth mindset:
 - Focus on individual learning outcomes, eliminate late penalties, and allow assessment retakes
 - Use a 0-4 grading scale or minimum grading
 - Use rubrics and rename grades
 - Use standards-based or mastery-based grading scheme

What does this look like in practice?

Students in Dr. Margoniner's Physics 107: Conceptual Physics and Scientific Inquiry spend most of class time on active-learning activities such as investigating natural phenomena or online simulations, looking for patterns to help them understand how nature works. Those activities are organized in OneNote worksheets that embed instruction and formative assessment questions. Most activities conclude with graded summative assessment questions. Collectively, these questions are worth 75% of the course grade. In addition, the following policies are used:

- Activities have suggested due dates only and no late penalty
- A 0-4 grading scale with a rubric is employed (4=exceeds expectations; 3=meets expectations; 2=approaching understanding; 1=limited understanding; 0=no evidence presented)
- Feedback is provided without the solutions
- Students have one week after the assignment is graded to make corrections and submit a re-grade request

The other 25% of the course grade is based on an individual lesson plan project.

Instructor's reflection:

"I really like the whole setup, but it is only now (at the end of March) that students seem to really understand and appreciate it. It was frustrating to see that students disliked being asked to make corrections. Many saw it as extra work instead of an opportunity to learn from their mistakes. The growth mindset just wasn't there and students wanted to be told the right answers to put down and move on. Thankfully, it seems they are starting to appreciate the class structure now! "

While dramatic changes to grading practices can be effortful for educators to implement and for students to appreciate at the outset, the data shows the benefits are worth it—such changes advance equity and can ultimately improve students’ intrinsic motivation to learn.

RESOURCES

Griffin, Robert Thomas, "Grading and equity: Inflation/deflation based on race, gender, socio-economic and disability statuses when homework and employability scores are included" (2020). Dissertations and Theses @ UNI. 1045. Found in scholar works: <https://scholarworks.uni.edu/cgi/viewcontent.cgi?article=2046&context=etd>

Feldman, J. (2019). Grading for equity: What it is, why it matters, and how it can transform schools and classrooms.

Blum, S.D., & Kohn, A. (2020). Ungrading: Why Rating Students Undermines Learning (and What to Do Instead). (First edition. Ed.). Morgantown: West Virginia University Press.

Please see the STEM-FIT Canvas Course for the detailed assignment instructions and more examples of student work. <https://csus.instructure.com/courses/71792>

