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Specifications Grading

by Michael S. Kirkpatrick

"Our answers were about the same, so why did you give me a 7 out of 10, but they got an 8?" "I got a 79.5%, but I really need a B in this class; can I turn in something for extra credit?" "Will there be a curve?" For many of us, these are the student questions that make us think, "Grading? Ugh, do I have to?" Linda Nilson devotes the first part of her book, *Specifications Grading: Restoring Rigor, Motivating Students, and Saving Faculty Time* (2015), to the many shortcomings of traditional point-based grading schemes. For example, these schemes tend to incentivize "grade grubbing" practices in which students strategize how to jump through hoops for points, rather than concern themselves with the real goal: *learning*. Nilson describes specifications grading as an alternative approach that aims to motivate students to focus on learning and improving their abilities. The key features of this approach are:

- Assignments, tests, and other work are graded on a pass/fail basis.
- Instructors provide very clear specifications of what constitutes acceptable (passing) work, which reflects the standards and quality of work that would traditionally merit a B grade.
- Students are allowed at least one opportunity to revise unacceptable work.
- Work may be grouped into modules (units that must be completed in order) or bundles (units that do not require an order) that are linked explicitly to course learning outcomes; the modules or bundles are graded as a single pass/fail measure to demonstrate mastery of that outcome.
- Bundles and modules can be weighted based on the complexity of the work required.

By combining the pass/fail structure with the opportunity to revise work, specifications grading offers instructors a way to uphold high academic standards while incentivizing students to take control of their own learning. Instead of trying to guess what will be on the exam or what part of the project earns the most points, students experience less stress by monitoring their progress toward clear and transparent expectations of quality. (Similar research on transparency in teaching and learning suggests students develop greater confidence and mastery of the subject matter.) Students that fail a bundle or module initially can use feedback and pursue additional practice before trying again; as such, students are given ownership of their grades. Furthermore, since feedback is not used to justify or document lost points, instructors can focus on supporting a growth mindset by providing positive directions for improvement and learning. This practice leads to a more personally rewarding experience for the instructors, as well.

Jason Mittell, a Professor of American Studies at Middlebury College, has been documenting his

approach using a layers of bundles. Students who attend most classes (< 5 absences), complete most (7 out of 10) weekly homework assignments, and answer all exam questions at a satisfactory level earn a C. Earning a B requires fewer absences (< 3), most (9 out of 10) homeworks, and answers half of the exam questions at an advanced level. The A level increases these requirements again, and also adds an essay. Kevin Cunningham, an Assistant Professor of Education at Central Michigan University, provides a more flexible menu of options, where students can submit a variety of different deliverables that are each weighted differently. While some tasks (lesson plan and instructional demonstration) are required, students can earn points by choosing between writing class reflections, writing a research paper on science misconceptions, adapting materials for students with disabilities, and so on.

To get started with specifications grading, instructors need to articulate clear learning outcomes and specify the quality expected. Learning taxonomies can improve the transparency of learning outcomes by providing language for instructors to organize and define precisely what students need to do to demonstrate mastery of a subject. There are several well-known examples, such as Bloom's revised taxonomy (2001), Fink's significant learning (2003), Wiggins & McTighe's Understanding by Design (UbD) (2005), or Biggs and Collis's Structure of Observed Learning Outcomes (SOLO) (1982). For instance, Bloom's taxonomy would distinguish between a low-level or preliminary learning objective (e.g., "recall the two economic forces that control the price of a good.") and a higher-order objective (e.g., "justify the price of a good given information about the supply and demand for it."). The next step is to create or use an existing rubric, such as AAC&U VALUE Rubrics, to augment the learning outcomes by explaining what constitutes various levels of quality (e.g., "excellent," "minimally satisfactory," or "needs improvement") toward achieving these outcomes. Once the outcomes and required quality are made explicit, instructors can repackage these as specifications. (For more information, we explore these and related topics in detail during the Center for Faculty Innovation's summer course design institute, jmUDESIGN.)

Certainly, there are times when specifications grading is not appropriate or implementing it would be difficult. For instance, early-career faculty may not have the experience to define clear specifications. Large classes (more than 40 students) might make it challenging to provide the repeated grading opportunities for revising and improving work. Also, courses that are part of a sequence or those with objectives outside the instructor's control are not good candidates; giving students flexibility in how to meet specifications makes it possible that they may not achieve proficiency in all the areas expected in later courses. However, for post-tenure faculty with control over learning objectives for small- or medium-sized courses, specifications grading creates possibilities for deeper and more durable learning for students, as well as a more enjoyable and rewarding teaching experience.

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