When Grading Less Is Teaching More

David Kyle N. Laggui, MAE, LPT

Doctor of Philosophy Major in Educational Management
Bulacan Agricultural State College

Abstract: The author has found a way to improve the quality of the feedback for learning Mathematics while lessening the time spent providing it to learners. This paper illustrates strategies for making grading more equitable to learning, including balancing accuracy- and effort-based grading, availing oneself of self or peer evaluation, curbing curved grading, and practicing skepticism about the meaning inferred of grades.

Introduction

Teaching in a formal class setting involves the process of reporting final grades. Likely, teachers assigned with variations on 80 and above than below. While teachers often become sympathetic to the stressful grading system, the lack of discussion in their midst about adjusting grades to promote more learners under wraps is an indicator of the numerous implicit assumptions they make about the grading system in Basic Education. Since the expectations, times, and stress associated with grading lead to potential distractions in performing other or more meaningful teaching-learning functions, it is haply time to go over the implicit assumptions encompassing grading with a fine-tooth comb. Below, the author offers four potential adjustments to the general approach to grading learners in Mathematics subjects for teachers to consider.

Maintaining Accuracy with Effort in Equilibrium

Numerous research studies indicate that the evaluative aspect of grades reduces focus on learning (Ali, & Fei, 2017; England, Brigati, & Schussler, 2017). While evaluation will always be pivotal in computing final grades beyond question, the whole grades certainly not be obtained predominantly on written works that credit only correct answers, such as summative tests. Designing a grading system that rewards learning experience has significantly encouraged learners to be strategic about expending effort to improve their skills (Edwards & Li, 2019). One method provides learning opportunities that recognize hard work without implicitly promoting score-oriented motivation. Many teachers used a wide variety of ways to assess effort and participation (Holmlund, Lesseig & Slavit, 2018; Modiano & Bonanome, 2019; Simelane-Mnisi & Mji, 2017). In Mathematics subjects, clicker questions graded on the number of learners who completed the problems and not of the correct responses is one strategy. Also, teachers can have learners turn in answers in the form of minute papers probed for understanding and reward this effort based on submission and not mathematical accuracy. Perhaps the most substantial task Mathematics teachers can be assigned at physical learning areas outside the classroom—mathematical investigatory projects, making models of geometric figures, and other numerical representations— that can scaffold learning practice and focus attention on fundamental concepts while not making an additional task for teachers in grading work. Teachers can quickly grade outdoor activities in Mathematics by incorporating a simple rubric that checks whether the learner submitted the work on time, enumerated correct reasoning and proof, posed the required word problems, and included an optimum number of references. In brief, one strategy for modifying grading is to maintain grading based on accuracy with some incentives based on their effort and participation in an equilibrium. This modification of grading can maintain learning environments that motivate learners to work productively by assuming responsibility for their learning and avoid some strategies that render ineffective grading.

Opening Doors for Meaningful Feedback through Self and Peers

Teachers usually catch onto grading to be distinct from the teaching-learning process, yet opportunities as meticulous for evaluation can serve as an effective tool for seeing through Mathematics for learners. One study by Hambacher, Ginn, and Slater (2018) asserts that just a foundational shift from a teacher-centered, transmissionist approach to a more collaborative approach compels between teacher and learners, so too should grading and feedback in the classroom. Despite widely used feedback by teachers transmitted to learners, Hambacher, Ginn, and Slater argue that the quality of these exchanges varies. They advocate incorporating techniques such as "first responder/connector" (FR/C) student-led asynchronous online discussions thread in a learning space. They propose that this form of feedback would drift away from the superficial conversation to deep dialogue and engagement with peers, ultimately directing to higher learning outcomes. Furthermore, group peer review and grading practices can be the groundwork of instructional activities outside the class and culminate in learner-led presentations steered by a teacher-made rubric. For instance, learners may be assigned homework outside the classroom to make drawings related to the diagrams of logarithmic functions (Cevikbas, & Kaiser, 2020). Accompanied by the development of a simple rubric, learners can self- or peer-evaluate these diagrams during the next class activity to comprehend the relationship between exponential and logarithmic function as illustrated by the teacher. Participating learners in peer evaluation use cooperative techniques in class to see other examples of mathematical thinking beyond their own and that of the teacher. Similarly, self-evaluation employing the teacher-made rubric can strengthen

metacognitive skills in reckoning personal abstractions and making generalizations about the lesson. Instant evaluations such as this have what it takes to open doors for meaningful and integrated feedback into the teaching-learning process. To sum up, both self- and peer-evaluation of work is a course of action for opening doors for meaningful feedback without grading based solely on correctness that can positively impact learning (Chong, 2018; O'Neill, Deacon, Gibbard, Larson, Hoffart, Smith, & Donia, 2018; Sanchez, Atkinson, Koenka, Moshontz, & Cooper, 2017).

Bending the Curve

The practice of grade curving has had distressing and frequently coerced effects on the cultural setting of Mathematics classrooms, grappling learners with one another than laying the foundations of a collaborative spirit (de Roux & Riehl, 2022; López, Basile, Landa-Posas, Ortega, & Ramirez, 2019). A simple method would be to relinquish grading on a curve. Seeing that learners constantly presumed to curve grades in Mathematics subjects, bending the curve would conceivably entail straightforward and drilled communication with learners to redefine achievement by competing only against themselves. Bending the curve anticipates that all learners could attain the highest possible grade. This practice in grading at the cutting edge may break the remaining barrier to sustaining learning environments responsive to community contexts in which learners uphold mutual support in the teaching-learning process. Some situations would compel teachers to use a curve when the majority of learners exhibit poor performance on a summative test. Nevertheless, an alternative method would be to identify the reason behind this poor performance as a basis for implementing teaching and learning strategies for remediation or reinforcement. As an illustration, if the items or instructions in the test are ambiguous or confusing to learners, curving does not appear to be an affirmative response. In place of that, eliminating that item from analysis and then computing the test grade would seem to be a nearer approach than curving. Besides, if the majority of learners exhibited poor performance on particular test items, allowing learners to review, change, and resubmit their solutions for an additional credit would probably result in an increased proficiency level of learners. This would preserve the standard and competency-based grading system and further enhance the learning of the instructional material initially least mastered. Bending the curve in Mathematics subjects and clearly expressing this to learners could sustain learning environments responsive to community contexts and uphold mutual support in the teaching-learning process while at the same time reducing the unerring negative impacts of this grading practice (Dockter, 2019).

Taking Grades with a Pinch of Salt

As the educational setting introduces grades as the currency of the academic success that might last for years, teachers may regard conceivably becoming nothing more than skeptical about what grades mean. Few will refuse to forward letters of recommendation for learners with unmet grades in a particular range in their subject. Still, if grades unauthentically reflect learning but other factors involving language proficiency, cultural intelligence, or test-taking skills, this would appear to be a deep-rooted biased practice. One equitable grading practice to adopt is anonymous grading by any chance, just as a researcher would score responses in a survey obtained from the individual respondents. The use of rubrics may help reduce grading bias (Quinn, 2020) by increasing consistency. In most particular, communicating grading rubrics with learners can assist them in reflecting and revealing problems they experience and developing sophisticated thinking skills. (Moss & Brookhart, 2019; Suskie, 2018). Much to be apprehended so far about the factors that influence learners' performance in formal learning, and some have proposed that grades may be more of a reflection of a learner's ability to understand and adapt to the learning environment and the wider school community than anything to do with learning (Collins & Halverson, 2018; Doyle, 2018; Feldman, 2018). To summarize, rubrics and anonymous grading can lessen the variability and bias in grading learners' work. In addition, keep in mind that grades are a plausible erroneous reflection of learning that can diminish assumptions teachers make about learners.

Conclusion

One ponders how much coherent learning experience might materialize if time is spent grading differently. What if teachers spent ample time planning enriched homework discussions of homework and assigned small-scale earned points to learners for completing the work? What if learners used rubrics to look at their peers' efforts and evaluate their work instead of teachers consuming a long time commenting on solutions? What if learners considered their peers as allies compared to rivals in subjects that operate grade curving? Putting small changes like those depicted above into practice might allow teachers to make a big difference in engaging learners in deeper learning by grading differently than they have ever done before.

References

Ali, T. T., & Fei, W. F. (2017). Foreign language classroom anxiety among Iraqi students and its relation with gender and achievement. *International Journal of Applied Linguistics and English Literature*, *6*(1), 305-310.

Cevikbas, M., & Kaiser, G. (2020). Flipped classroom as a reform-oriented approach to teaching mathematics. *Zdm*, *52*(7), 1291-1305.

Chong, S. W. (2018). Three paradigms of classroom assessment: Implications for written feedback research. *Language Assessment Quarterly*, *15*(4), 330-347.

Collins, A., & Halverson, R. (2018). *Rethinking education in the age of technology: The digital revolution and schooling in America*. Teachers College Press.

de Roux, N., & Riehl, E. (2022). Do college students benefit from placement into higher-achieving classes?. *Journal of Public Economics*, *210*, 104669.

Dockter, D. R. (2019). *Student persistence in undergraduate STEM: exploring the impact of preparatory courses on student experience, motivation, and identity*. University of California, Davis.

Doyle, T. (2018). *Helping students learn in a learner-centered environment: A guide to facilitating learning in higher education*. Stylus Publishing, LLC.

Edwards, S. H., & Li, Z. (2019, June). Board 43: Designing Boosters and Recognition to Promote a Growth Mind-set in Programming Activities. In *2019 ASEE Annual Conference & Exposition*.

England, B. J., Brigati, J. R., & Schussler, E. E. (2017). Student anxiety in introductory biology classrooms: Perceptions about active learning and persistence in the major. *PloS one*, *12*(8), e0182506.

Feldman, J. (2018). *Grading for equity: What it is, why it matters, and how it can transform schools and classrooms*. Corwin Press.

Hambacher, E., Ginn, K., & Slater, K. (2018). From serial monologue to deep dialogue: Designing online discussions to facilitate student learning in teacher education courses. *Action in Teacher Education*, *40*(3), 239-252.

Holmlund, T. D., Lesseig, K., & Slavit, D. (2018). Making sense of "STEM education" in K-12 contexts. *International journal of STEM education*, *5*(1), 1-18.

López, E. J., Basile, V., Landa-Posas, M., Ortega, K., & Ramirez, A. (2019). Latinx students' sense of familismo in undergraduate science and engineering. *The Review of Higher Education*, *43*(1), 85-111.

Modiano, Y., & Bonanome, M. (2019). Writing to Reduce Anxiety and Improve Outcomes in Introduction to Statistics for Psychology Majors. *Psychology Teaching Review*, *25*(2), 55-63.

Moss, C. M., & Brookhart, S. M. (2019). *Advancing formative assessment in every classroom: A guide for instructional leaders*. ASCD.

O'Neill, T. A., Deacon, A., Gibbard, K., Larson, N., Hoffart, G., Smith, J., & Donia, B. L. M. (2018). Team dynamics feedback for post-secondary student learning teams. *Assessment & Evaluation in Higher Education*, *43*(4), 571-585.

Quinn, D. M. (2020). Experimental evidence on teachers' racial bias in student evaluation: The role of grading scales. *Educational Evaluation and Policy Analysis*, *42*(3), 375-392.

Sanchez, C. E., Atkinson, K. M., Koenka, A. C., Moshontz, H., & Cooper, H. (2017). Self-grading and peer-grading for formative and summative assessments in 3rd through 12th grade classrooms: A meta-analysis. *Journal of Educational Psychology*, *109*(8), 1049.

Simelane-Mnisi, S., & Mji, A. (2017, June). Students' perspective on technology-engagement teaching strategy using clickers in a mathematics course. In *ICEL 2017-Proceedings of the 12th International Conference on e-Learning* (p. 205). Academic Conferences and publishing limited.

Suskie, L. (2018). *Assessing student learning: A common sense guide*. John Wiley & Sons.