

GRADING WITHOUT POINTS

DOES IT HURT STUDENT PERFORMANCE?

R. Eric Landrum and Karen H. Dietz

Abstract. We gave students enrolled in a research methods course the option of receiving normal grade feedback on assignments (with point values assigned) or receiving feedback on assignments without point values assigned. With respect to final grades earned, students in the two groups did not differ significantly. Final grades were related to self-report of effort as well as future career plans. We encourage instructors to experiment with the mechanics of grade feedback to optimize educational opportunities for students.

As a teacher, have you ever thought: Wouldn't it be nice to not have students arguing before, during, and after class about how they lost three points on a 100-point assignment? Or, what if students came to class for the sheer sake of learning and put aside their concerns about earning points? There are many positive aspects to teaching, but grading is not often counted among its highest pleasures.

Grading student performance has a long history and tradition. According to Milton, Pollio, and Eison (1986), grades

started in America at Yale University in 1783, using the terms *optime*, *second optime*, *inferiores*, and *peiores*. These descriptions were used for a 4-point grading scale just after 1800, and in 1813 the first grade point averages were calculated—from a low of 1.3 to a high of 3.7. Unfortunately for instructors, history does not record the first complaints about unfair grading and losing too many points on an assignment.

More recently, Pollio and Beck have written about how the assignment of grades has evolved into the current environment of student entitlement: "Grades, rather than learning, become the primary objective of many students; the appearance of achievement becomes more important than the achievement itself" (2000, 84). Is there anything that can be

done to orient students more toward learning and less toward grades? Eison, Janzow, and Pollio (1993) as well as Milton, Pollio, and Eison (1986) have worked in the area of assessing learning orientations and grade orientations of students and faculty. In their use of the LOGO scale (learning orientation, grade orientation), survey responses quantify learning and grade orientations (Eison, Pollio, and Milton 1986). Our learning-grade faculty orientations can exacerbate a student's preoccupation with grades. Pollio and Beck found that learning-oriented instructors tend to be more flexible in their teaching and evaluation practices, set a high premium on class discussion, and place greater value on cooperation between students than less learning-oriented instructors. High grade-oriented professors, on the other hand, tend to believe that grades are good predictors of success in later life, are very concerned about grade inflation, teach to the "best and brightest," and value grades as incentives (2000, 85).

In the midst of self-reflection, we realized that we are part of the problem and contribute to this obsession with points and grades. As instructors, we spend time reviewing the syllabus with students on the first day of class, stressing that 630 of 700 points is an "A," and 629 points is a "B." By emphasizing points on the first day and reinforcing their importance on every assignment returned to students, we are a major source of students' anxieties about points and grades.

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We attempted to design a teaching-learning situation to refocus students on learning and to encourage them to worry less about points. It should be noted, however, that just because we wish to focus on learning, our only outcome measure is student performance. The goal of the present study was to create that environment and to ultimately assess its impact on student performance as well as student attitudes toward teaching and learning. It is important to note that while educators often assume (or hope) that there is a direct connection between learning and performance, they mostly lack any methods of assessing that connection. Any assessment of learning is prone to multiple types of measurement error. Although educators often believe we are impacting student learning, technically we only have a direct measure of student performance and an indirect and imperfect measure of teacher performance.

Method

Participants

Students enrolled in four sections of the first author's research methods class were solicited to participate. Out of seventy-seven students over two semesters (fifty women, twenty-seven men, mean age = 24.7, $SD = 6.5$), twenty-three (30 percent) volunteered to participate in the No Points condition. Participation was completely voluntary, and students could withdraw from the study at any time without penalty. There were no significant differences between those who volunteered (No Points) and the Points condition students in age, number of semesters in college, or number of semesters to graduation.

Materials

Because random assignment of students to conditions was not possible, we gave students a battery of pretest measures to ascertain any differences between volunteers and nonvolunteers (these measures were given prior to the opportunity to volunteer). We gave all students the LOGO (Eison, Pollio, and Milton 1986), the Achievement Anxiety Test (Alpert and Haber 1960), and the Locus of Control scale (Levenson 1981). Demographic items questioned number of semesters of

college completed, number of semesters to graduation, year in school, ethnic background, and future plans (for instance, to enter the workforce after earning a bachelor's degree, or to go to graduate school). We also had access to student performance on class assignments. Students who volunteered for the No Points condition were also asked a series of questions about their participation at three different intervals during the semester.

Procedure

Prior to any knowledge about the volunteer opportunity, we gave students the LOGO, Achievement Anxiety Test, and the Locus of Control scale. Following a review of the syllabus, we told students about the opportunity to receive feedback about course performance but without points. This was the No Points condition. Students receiving regular grades and points on assignments comprised the Points condition. The rationale and motivation for the study was explained to students: that there would be no grading leniency for those who volunteered to participate, that points would still be assigned by the instructor, and that the point totals would not be revealed to students in the No Points condition until the end of the semester. We told students that if they volunteered, they could withdraw at any time. For the entire study, only one student withdrew from the No Points condition.

Students in the No Points condition ($n = 23$) continued to receive feedback and comments about their work, but not in the form of point values. Thus, on manuscript drafts, students in this condition were told what their grade range was (A, B, C). For other assignments, mistakes were corrected and feedback was given, but no point values were assigned (often, a checkmark was used to indicate that the assignment had been received and corrected). We also surveyed the students in the No Points condition once per month for three months about their satisfaction with the No Points option. This procedure allowed us to track any changes over time and to ascertain a general satisfaction level for those students who self-selected into this condition.

Results

We summarized the results of the study in three sections: pretreatment differ-

ences, course performance, and satisfaction with the No Points condition.

Participant Self-Selection: Pretreatment Differences?

Given that participants self-selected into conditions, these preliminary analyses allowed us to determine whether the groups differed before the study. There were no significant differences on LOGO subscale scores, Achievement Anxiety Test subscale scores, or Locus of Control scales. From the original items (answered on a scale from 1 (strongly disagree) to 5 (strongly agree), there was one significant difference: participants in the No Points condition agreed significantly more ($M = 3.86$, $SD = .81$) than those in the Points condition ($M = 3.44$, $SD = .83$) with the question "I think I could do well in a class where I received feedback on my assignments but no grade on each assignment," $t(75) = -2.05$, $p < .05$, $d = 0.50$ (Cohen's d , an effect size statistic, Gravetter and Wallnau 2002). This effect size value is considered medium. Thus, prior to the study, these groups were essentially identical except for their perception about taking a class with assignments but no grade attached to each assignment.

Class Performance Outcomes

To examine the overall effect of the No Points versus Points condition, we used total points earned in the class. There was not a statistically significant difference between the No Points condition ($M = 599.4$, $SD = 49.1$) and the Points condition ($M = 574.6$, $SD = 127.8$), $t(73) = -0.89$, ns , Cohen's $d = 0.23$. This is a medium effect size; however, the t -test did not indicate a significant difference. Total points earned was significantly correlated with the question "I work hard on every assignment, regardless of past grades on previous assignments," $r(73) = 0.39$, $p < .05$. There were also significant differences in total points earned depending on career plan (getting a job, $M = 494.9$, $SD = 199.0$; graduate school, $M = 613.8$, $SD = 39.3$; getting a job, then going to graduate school, $M = 553.2$, $SD = 134.9$; other, $M = 576.7$, $SD = 39.2$), $F(3, 67) = 4.32$, $p < .01$. Tukey's post-hoc analysis ($p < .05$) indicated that the total points earned were significantly different between those planning on getting a job and those planning to

attend graduate school. These differences in total points based on career plans were also mirrored in the differences on the question "I work hard on every assignment, regardless of past grades on previous assignments" and career plans (getting a job, $M = 3.16$, $SD = 1.0$; graduate school, $M = 4.09$, $SD = 0.7$; getting a job, then going to graduate school, $M = 3.93$, $SD = 0.5$; other, $M = 3.50$, $SD = 0.5$), $F(3, 68) = 5.27$, $p < .005$. Tukey's post-hoc analysis ($p < .05$) indicates that planning on getting a job is not different from planning on work then graduate school or other, but is significantly different from planning on graduate school.

Satisfaction With the No Points Condition During the Semester

We surveyed students who volunteered for the No Points condition three times during the semester. Over time, responses to two questions changed significantly. Students in this condition agreed more with the item "I wish other classes would offer the 'no points feedback' option" (time 1 $M = 3.23$, $SD = .08$; time 2 $M = 3.58$, $SD = 0.9$; time 3 $M = 3.64$, $SD = 0.7$), $F(2, 32) = 4.77$, $p < .05$. Tukey's post-hoc analyses indicated a significant increase from time 1 to time 2 ($p < .05$), but no significant difference from time 2 to time 3. There was also a significant increase in disagreement for the item "Not knowing my point values has hurt my performance in this class" (time 1 $M = 2.0$, $SD = 0.5$; time 2 $M = 1.80$, $SD = 0.5$; time 3 $M = 1.80$, $SD = 0.5$), $F(2, 28) = 3.50$, $p < .05$. Tukey's post-hoc analyses indicated a significant increase in disagreement from time 1 to time 2 ($p < .05$), but no change from time 2 to time 3.

Discussion

Students not receiving point values on assignments during the semester did not differ significantly in their overall final grade from those students receiving regular feedback. The lack of significance in this finding is comforting to teachers. We were glad to see students perform as well (or slightly better, given the effect size) without points feedback—maybe these students did embrace the notion of learning for the sake of learning and did not center their efforts around earning points. Certainly, students who self-selected into

this condition did not suffer because of it. At the same time, we were a bit relieved that the difference was not significant. If it were, and the No Points condition scored significantly better than the Points condition, we would have been dismayed that for all these years a simple grading manipulation would have significantly improved grades.

It is important to note that we do not understand the qualitative difference between the learning that occurred in the two groups—we only have available a measure of student performance, not a measure of student learning. Did student performance change because students relaxed about grade pressures and concentrated on understanding the material? Did students' memory processes change, or satisfaction increase, or processing of the course material become altered in some way? These questions are not answerable within the context of this study.

The overall pattern that emerged is that students who reported working hard on every assignment and having aspirations for future graduate school earned more points than students with other aspirations (such as getting a job after graduation). This information may be useful to instructors in understanding the motivational differences of students comprising their class. That is, if an instructor makes the effort to understand students' career plans, he or she may be less surprised about the amount of effort students expend in the classroom. Conversely, this conclusion may offer some evidence in favor of separate undergraduate tracks depending on career aspirations.

Students who participated in the No Points condition did not view the experience as aversive. As the semester progressed, they wished for more classes with the No Points option and disagreed more with the idea that the No Points option hurt their performance in the class. Clearly, these students generally viewed the No Points condition positively. Perhaps this was due to their ability to focus on their work and concentrate on the tasks at hand rather than participate in social comparison in the classroom (for example, "What did you get?"). Pollio and Beck suggested that "most students wanted to be more learning and less grade oriented in their personal orientations and

for their instructors to afford greater emphasis to learning orientation and less to grade orientation in teaching their courses" (2000, 97). It seems reasonable to conclude that those who did self-select into the No Points condition may have done so to concentrate more on learning and less on points.

Studies such as this are limited as to their size and scope. This study was conducted in one department at one university in four sections of an upper-level course. These findings may not hold true for other situations. Instructors should continue to experiment with ways to enhance the learning experience. For instance, a better understanding of the connection between learning and performance would be fruitful for future studies. For students that do choose a No Points option, it would be valuable to know the rationale for the choice. Future work in this area may wish to focus on these issues.

What happens when students receive feedback during a course but are unaware of the points being accumulated? In our study, students who received no point feedback performed just as well as those who received standard point values on assignments. Additionally, students who received more points tended to report higher persistence on tasks and to be on a career path toward graduate school. To meet the needs of our students, we encourage other instructors to experiment with course policies and grading practices to optimize the course for all students. In this study, such experimentation did not appear to harm student performance.

Key words: feedback, grades, points, student performance

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