

Amy A. Hasinoff, University of Colorado Denver, amy.hasinoff@ucdenver.edu
Wendy Bolyard, University of Colorado Denver, wendy.bolyard@ucdenver.edu
Dennis DeBay, University of Colorado Denver, dennis.debay@ucdenver.edu
Joanna C. Dunlap, University of Colorado Denver, joni.dunlap@ucdenver.edu
Annika C. Mosier, University of Colorado Denver, annika.mosier@ucdenver.edu
Elizabeth Pugliano, University of Colorado Denver, elizabeth.pugliano@ucdenver.edu



“Success was Actually Having Learned:” University Student Perceptions of Ungrading

ABSTRACT

A large body of evidence shows that many ungrading practices are as good or better than conventional approaches at supporting learning outcomes. Much of the research on student perceptions of ungrading, however, is based on individual case studies which, although informative, are often anecdotal, not systematically implemented, and tend to emphasize the instructor’s perspectives. Building on this literature, we offer a systematic study that asks: how do students perceive pedagogical practices designed by instructors to support an ungrading strategy? To answer this question, we conducted a survey of students across a range of disciplines and a variety of ungrading approaches to assess how they perceive their learning experiences in these courses as compared to others. Findings indicate that students generally perceive that ungrading practices improve their relationship with their instructor; enhance their engagement, agency, enjoyment, and interest; foster their intrinsic motivation and focus on learning; and facilitate their creativity. While many students reported reduced stress, others reported that the unfamiliarity and uncertainty of ungrading increased their stress. Gaining a better understanding of how students react to these pedagogical techniques can help instructors improve their practices.

KEYWORDS

ungrading, assessment, alternative assessment, survey, higher education

INTRODUCTION

Assessment is typically intended to motivate, provide feedback, and describe achievement. The conventional approach is that instructors quantitatively assess completed assignments with points or a letter grade and students’ final course grades are the average (often weighted) of those assessments. Yet, this conventional form of assessment has long been a point of contention among some in education (Schinske and Tanner 2014). Grades have been derided for being arbitrary and inconsistent, causing unnecessary stress and competitiveness, and decreasing creativity and intrinsic motivation for learning (Bloxham et al. 2016; Kohn 2011; Schinske and Tanner 2014; Schneider and Hutt 2014; Tannock 2017).

Since the 2010s, educators seeking to address these issues have increasingly turned to practices of alternative assessment and “ungrading,” which have been popularized in a number of

recent books (Blinne 2021; Blum 2020; Sackstein 2015; Stommel 2023). Ungrading is a pedagogical approach to assessment that decenters grades in an attempt to mitigate their drawbacks and increase the focus on learning (Blum 2020). The term also refers to a practice of fundamentally questioning the purpose of grades and reconsidering the role of assessment in the process of learning (Stommel 2023). While the specific strategies of ungrading vary, instructors typically use fewer quantitative summative assessments based on predetermined criteria and instead provide detailed formative feedback with opportunities for revision. Often ungrading also involves offering flexibility in how students reach and demonstrate their achievement of learning outcomes and attempting to foster students' autonomy and responsibility for their learning.

A growing body of evidence shows that ungrading is generally effective and supports learning outcomes (Blinne 2021; Blum 2020; Burrows et al. 2021; Carter and Carter 2022; Guberman 2021; Hall and Meinking 2022; Koehler and Meech 2022; Mallette and Hawks 2020; Reardon and Guardado-Menjivar 2020). However, much of the research on student experiences of ungrading is based on ethnographies, small qualitative studies, and case studies which, although informative, are often anecdotal and sometimes emphasize instructors' perspectives. Gaining a better understanding of how students react to these pedagogical techniques can help instructors improve their practices. In this systematic study, we investigate how students perceive pedagogical practices designed to support an ungrading strategy. We conducted a survey of students across a range of disciplines and ungrading approaches to assess how they perceive their learning experiences in these courses as compared to others.

LITERATURE REVIEW

For most instructors, ungrading is a process of shifting their attention from assigning and justifying letter grades to developing other strategies for offering feedback and fostering students' learning and growth. Many of the particular practices instructors use for ungrading are common in conventional courses, and indeed many have been extensively studied and validated in those contexts. Typical practices used in ungrading include focusing on formative rather than summative assessments, assessing assignments as complete or incomplete, encouraging students to revise and resubmit work until they achieve the learning outcome, and incorporating self-assessment and/or peer feedback. When instructors use these practices to pursue ungrading, they typically do so as part of a holistic attempt to draw students' attention and motivation away from earning a particular grade and towards an intrinsic motivation for learning in the course (Blum 2020).

Most universities require a transcribed final grade, so instructors who practice ungrading often use nontraditional measures to determine students' final grades. Some, for example, calculate effort rather than outcome or mastery (Inoue 2019), and others use specifications or contract grading to determine a final grade based on the number of completed assignments and/or achieved learning objectives (e.g., Cordell 2019; Danielewicz and Elbow 2009; Nilson 2014). Self- and peer-assessment (Andrade 2019; Boud 1995; Dochy and Sluijsmans 1999) and personal reflection (Norton and Campbell 2007) are also common strategies among instructors who pursue ungrading. Some instructors ask students to submit portfolios (McMullan et al. 2003) in which they reflect on their growth and compile their work to demonstrate their achievement of course learning objectives and/or their own learning goals (e.g. Blum 2020; Carter and Carter 2022). With any of these approaches, assessment instruments might be provided by instructors or co-created with students, and for some, final grades are determined in dialogue between the instructor and student (e.g., Cordell 2019; Guberman 2021; Stommel 2023; Supiano 2019).

Research suggests ungrading helps recenter students on learning and growth (Blum 2020; Supiano 2022; Taylor 2022). By deemphasizing summative and high-stakes assessment, these approaches often allow students to experiment, take risks, and explore creative approaches and solutions without fear of lost points and lower grades (Blum 2020). Ungrading practices can also facilitate students’ development of metacognitive awareness, self-evaluation skills, and self-directed learning skills (Blum 2020; Talbert 2022). Many instructors implement ungrading practices as part of a “pedagogy of care” (Ferns, Hickey, and Williams 2021), as a practice of trusting their students (Hasinoff 2021), and as part of a strategy to create a more intentional instructor presence and inclusive learning opportunities (Sorensen-Unruh 2020). Finally, because ungrading is focused on learning instead of grading, students’ learning experiences could be less competitive and more collaborative (Schinske and Tanner 2014).

Although there are important benefits to ungrading practices, they can present challenges as well. Researchers have raised concerns that ungrading practices including self-assessment and labor-based grading may reinforce social inequalities in favor of learners who are already privileged. That is, these researchers suggest that students who are neurotypical as well as those who benefit from racial, economic, and gender privileges may enter the classroom with more metacognitive awareness, more accurate self-assessment skills, and better self-directed learning skills, which are necessary for some ungrading practices; thus without mitigating these inequalities ungrading might reinforce them (Boud 1995, 1989; Carillo 2021; Inoue 2012; Kryger and Zimmerman 2020; Supiano 2022; Talbert 2022). Talbert (2022) warns that the absence of conventional grades “may take away the guideposts that learners from less privileged backgrounds might need as they navigate college courses” (np).

Ungrading also requires trust between students and instructors and attention to the power differences between them (Blinne 2021; Hasinoff 2021; Tan 2004). If an ungrading practice is not genuinely and openly negotiated with students, they may feel “suspicion and resentment” (Spidell and Thelin 2006, 55). Moreover, ungrading can involve more ambiguity than conventional approaches, which may cause students confusion, stress, anxiety, and concerns about fairness (Laflen and Sims 2021; McMorran and Ragupathi 2020; McMorran, Ragupathi, and Luo 2017; Reardon and Guardado-Menjivar 2020). Finally, common institutional challenges include large class sizes and unsupportive administrators.

METHOD

To investigate how students perceive the differences between their ungrading courses and conventional courses, this study used a survey with closed- and open-ended questions asking students to compare their ungrading course to “others.”

Instructor inclusion criteria

We used purposive sampling to invite 18 instructors at our university with experience and training in ungrading to include their courses in the study. All participants had attended or facilitated professional development activities about ungrading and read articles about ungrading before they were invited. They were provided with a definition of ungrading, a list of common ungrading practices, and a brief description of the aims of the study; ultimately ten instructors chose to participate and collectively identified 14 of their courses for inclusion in the study. Some of the instructors are co-authors of this study and all have been formally associated with [ThingStudio](#), a campus-wide faculty-initiated community that is focused on inclusive and innovative pedagogy. To reduce potential bias, the survey did not collect any information about which course the student had taken, and in the analysis phase, the written responses were separated from the demographic data.

The faculty involved in this study used ungrading practices and policies at frequencies which largely aligned with student reports on the survey (Table 1).

Table 1. Assessment types students self-reported in their ungrading courses

Assessment type	Percent of students who reported the assessment type in their course (n=128)
Self-assessment	73%
Peer review	71%
Reflection	67%
Revising	48%
Complete/incomplete	31%
No late penalties	30%
Student-determined criteria	29%
Labor- or effort-based grading	28%
Specifications grading	24%
Low- or no-points assignments or activities	21%
Contract grading	13%
Don't know	5%
Other	3%

Survey administration and context

During the last two weeks of the fall 2021 semester, survey invitations were sent to all 364 students in the 10 participating instructors' 14 ungrading courses. The invitation to take the survey specified which ungrading practice(s) their course used, and faculty decided individually whether or not to administer the online survey in class and/or incentivize participation through extra credit. Prior to survey distribution, IRB approval was received (Protocol: 21-4839) to collect survey responses via an anonymous Qualtrics survey.

Survey questions were based on common themes we identified in the literature on ungrading and in feedback about our assessment practices that we had informally collected from students through surveys in our courses, conversations, and university-mandated course evaluations. Students who elected to take the survey were presented with a combination of closed- and open-ended questions on the types of ungrading practices used and the perceived effects, benefits, and drawbacks of such practices (Appendix A). The closed-ended questions asked students to “compare this course to others” on 20 factors, which they reported on a five-point Likert scale from “much more” to “much less.” Most of the open-ended questions repeated topics from the closed-ended questions, asking respondents to “describe how the types of feedback, grading, and evaluation in this course affected” factors including engagement, stress, ability to take risks and be creative, definitions of success, and perceptions of feedback. All students received the same questions in the same order, and no questions were required.

A total of 128 surveys were completed (35% response rate). Survey respondents reported basic demographic data and frequencies were calculated (Tables B1–B4, Appendix B). Surveyed classes ranged in size from four to 79 students and course disciplines included biology, communication, education, history, psychology, and art history. The classes surveyed ranged from introductory to advanced undergraduate courses as well as master’s-level graduate seminars (Table B5, Appendix B). Most respondents were enrolled in junior or senior level undergraduate courses (84%) and were taking a course required by their major (74%).

Quantitative and qualitative analysis

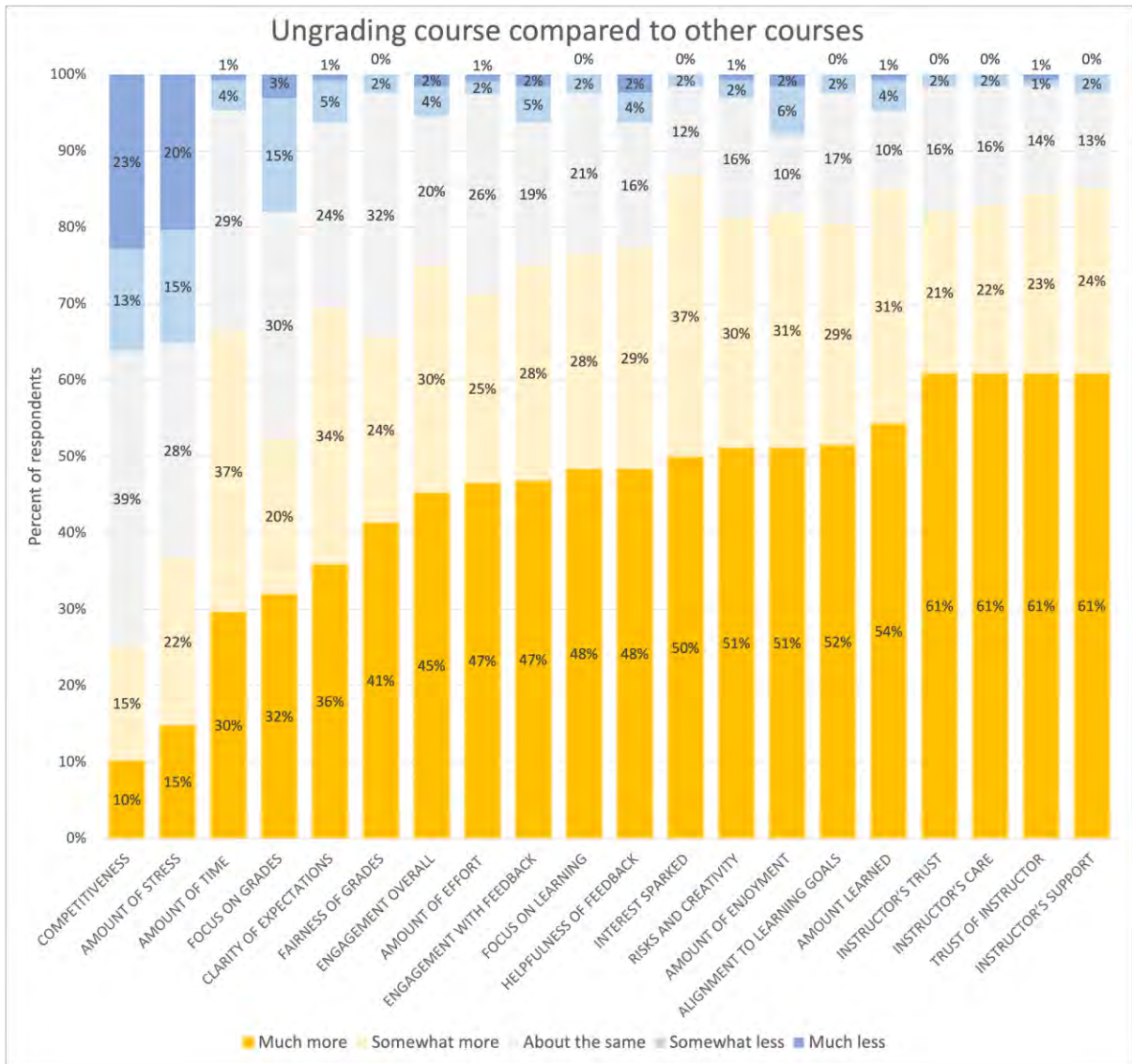
Our quantitative analysis revealed general trends in the students’ perceptions of ungrading. For the 20 factors that were assessed with Likert scales, we converted the responses to numeric values (much more = 5; somewhat more = 4; about the same = 3; somewhat less = 2; much less = 1). We relied mainly on descriptive statistics to present the data (see Figure 1), created contingency tables to analyze the relationships between some of the demographic data and some of the factors, and calculated correlations between the closed-ended survey question responses (Table B6, Appendix B).

Our focus, however, is on how the students’ written responses suggest specific interpretations of the broader findings in our quantitative data. We used thematic analysis (Braun and Clarke 2012) to analyze the students’ responses to open-ended questions. The analysis team read all the written responses and conducted initial inductive coding on a sample of the responses. Each member of the analysis team was assigned one main topic that corresponded to a subset of the open-ended questions, and we used those topics to organize our results into the five sections below. Each researcher identified themes within their topic by informally creating and applying codes to specific questions’ responses and to the general open-ended questions. We met weekly over the course of two semesters to discuss our impressions of the themes and validate our interpretations of the data. We ultimately selected themes for analysis within the five topics based on the frequency of the theme in the responses, the theme’s conceptual importance, and the theme’s specificity to ungrading.

RESULTS AND DISCUSSION

Overall, student experiences of ungrading practices were positive, and most students reported that they benefited from and appreciated the ungrading approaches they encountered. More than 70% of respondents reported that they experienced all 15 of the factors that described positive perceptions of learning either “somewhat more” or “much more” in their ungrading course as compared to conventional courses (Figure 1). These results confirm the case studies and anecdotal reports in the literature discussed above that ungrading practices have generally positive effects on most students’ perceptions of the processes, outcomes, and contexts of their learning.

Figure 1. Quantitative factors (n=20) assessed with more/same/less Likert scales, ungrading course compared to other courses



See Appendix A for the complete survey question for each factor.

Many of the ungrading practices used in surveyed classes were intended to promote a student-centered learning environment where the instructor focuses on developing trusting relationships and facilitating the learning experience. One student explained the importance of this approach:

Other classes begin the semester with strict syllab[i] and deadlines, almost creating a negative/threatening atmosphere right off the bat. This class strictly focused on a positive, trusting, encouraging environment that allowed me to learn & absorb the material a lot better. (ID 61)

A number of students experienced their ungrading course as an environment where instructors prioritized growth-directed feedback over grades and acted as facilitators rather than gatekeepers. One student described the instructor as “a guide, not a person to check all the boxes” (ID 111), while another shared how their instructor “took the time to explain but also to ask questions and challenge us to figure things out for ourselves” (ID 113). Students seemed to appreciate having more agency in their learning and a less hierarchical relationship with their instructor: “The course . . . required that students take more of an active role in the class. It changed the dynamic between student and teacher in a positive way” (ID 7).

Some students reported that instructors in their ungrading courses seemed to care about them more compared to those in other courses. One student explained, “I felt cared for by my professor in a way I haven’t before” (ID 13); another wrote: “It made me realize how poorly I was treated in another class. I only wish my other professors in other courses had this amount of care and empathy for their students” (ID 12). On the closed-ended survey questions, respondents consistently and overwhelmingly reported that they felt instructors cared about them, trusted them, supported them, and that they could trust their instructors in their ungrading course more than other courses. Out of all 20 factors, students were the most certain and enthusiastic about these four aspects (care, trust for students, support, trust of instructors); they had the four highest percentages of “much more” responses and were highly correlated with each other (Table B6, Appendix B).

For many of the surveyed courses, instructors specifically pursued ungrading strategies in hopes of increasing students’ attention to learning by decreasing their focus on grades, which is reported as a goal of ungrading in the literature. Indeed, some students perceived that paying less attention to grades increased their success and learning. One respondent wrote, “I felt like I was able to define success in this course by my own learning and understanding, rather than by the grade I was given” (ID 75), while another explained, “This type of grading changed my definition of success from achieving an A to mastering content. Previous courses have usually been more about the grade for me” (ID 98). Another commented, “[I] became much more focused on learning the material than getting a good grade. Success was actually having learned, much more fulfilling than just a grade” (ID 43). For these students, ungrading helped them redefine success as learning the material rather than achieving a good grade.

However, while around three-quarters of students responded “much more” or “somewhat more” to the question about their “focus on learning,” just over half responded the same way to the “focus on grades” question (see Figure 1). Focusing on grades had moderate positive correlations to stress ($r = 0.53$) and amount of time spent on the course ($r = 0.60$). Because all our courses required a transcribed final grade, it is possible that students remained focused on their grades. It is also possible that students who focused on their grades were thinking about them in productive ways: research demonstrates connections between metacognition and increased learning outcomes (e.g., Perry, Lundie, and Golder 2019). Though we did not find confirmation of this in the quantitative data, some who reported more focus on grades also seemed to be more invested and engaged in the course content in their responses to open-ended questions. For several others, focusing on their grades in an ungrading courses meant thinking about their learning and how they could improve. For example, one respondent wrote that the course “challenged [me] to understand and to improve to get the grade that I want” (ID 65) and another explained, “It allowed me to realize what my weakest areas were and where I needed to spend more time improving” (ID 92).

In the remainder of this section, we examine student perceptions of five key topics: engagement, enjoyment and interest, success and motivation, risks and creativity, and stress.

Engagement

Given that conventional grading practices can negatively affect student engagement (Schinske and Tanner 2014), our results support the claim that ungrading practices can have the opposite impact by engaging students in relevant and meaningful work, creating an enjoyable learning experience that encourages exploration, and allowing students to pursue their interests. Students reported that their overall engagement in ungrading courses was much (45%) or somewhat (30%) higher than in traditional courses (see Figure 1). One student commented:

I found myself sincerely and authentically trying to engage with the material and produce my highest quality work rather than trying to “perform” competence and do the minimum to impress my professor enough to give me a good grade. I also was more focused on the work than the grade I would get for it, and found myself better able to understand and integrate feedback from peers and my professor. (ID 19)

There were moderate positive correlations between reporting more engagement overall and the students’ focus on learning ($r = 0.65$) and their perceptions of the amount they learned ($r = 0.62$).

Some students reported being more engaged simply due to being graded on participation, the completion of work regardless of outcome, or submitting reports about their effort. Other students engaged more because they knew that their work would be viewed by other classmates (e.g., during peer review) or because they were eager to act on valuable instructor feedback. Students reported that the instructor’s feedback was more helpful (77%) and that they engaged with it more (75%) in their ungrading course, and these two factors were strongly positively correlated (Table B6, Appendix B). This result confirms the research demonstrating that students pay more attention to feedback when it is not attached to a grade (Butler 1988). Some students also felt more engaged because they were evaluating themselves or defining success on their own terms. For instance, one student wrote, “It made me more engaged because of the reflection and my responsibility for my own success” (ID 76) and another reported, “Since I was more in charge of how successful I was, I was more engaged” (ID 56).

More than 65% of students indicated they spent more time on their ungrading course and nearly 75% said they put more effort into their ungrading course (see Figure 1). This confirms the case study literature on ungrading, which suggests that conventional grades and strict policies are not necessary to ensure that most students will complete their work and fully engage with a course (Williams 2020). As one student explained: “In a class set up to let me be a slacker, I worked harder and learned more than my other class” (ID 113), and another student wrote, “it encouraged me to put in more work and be more of an active participant in my education” (ID 56). There was also a moderate positive correlation between reporting more engagement overall and spending more time ($r=0.50$) and effort ($r = 0.68$). Very few students reported that they spent less time (2%) or effort (5%) in their ungrading course.

Enjoyment and interest

Enjoyment has been previously shown to affect student learning and achievement (Linnenbrink-Garcia, Patall, and Pekrun 2016; Linnenbrink-Garcia and Pekrun 2011). In general, our findings confirm the literature on ungrading which suggests that ungrading approaches, such as self-assessment and allowing students to demonstrate learning in flexible ways, can increase students’ engagement, sense of agency, and enjoyment of their courses (Blum 2020; Guberman 2021; Williams

2020). Our results show that more than 80% of students reported that they enjoyed their ungrading courses more than their other courses (see Figure 1). One student explained, “this class made me feel good about school, for once. Most of my classes make me feel bad or lazy or generally just a little stupid” (ID 70). For some, a feeling of being valued and respected was related to their enjoyment: one student wrote, “I enjoyed this class so much. I was able to learn so much and feel valued and respected as a researcher, student, and person” (ID 12). Indeed, enjoyment was moderately positively correlated with support ($r = 0.70$), trust ($r = 0.64$), and care ($r = 0.62$). Some students explained that feeling less stress or anxiety helped them to enjoy the learning process more. Other students appreciated the flexibility in due dates or assignment format. One student wrote:

I have never had a class where . . . you could express your individuality—I really enjoyed that aspect of the class. For example, a poster can be graded the same way a paper would be if that is how you best express what you learned while addressing the same guidelines/prompt. (ID 119)

Overall, the high levels of enjoyment we found in our data confirm the case study reports that students generally react well to ungrading practices (e.g. Blinne 2021; Blum 2020).

Most students (87%) reported that their ungrading course sparked more interest in the course topics compared to other courses. In open-ended responses, students explained that they appreciated the opportunity to explore topics that interested them, rather than having a rigid set of content that all students were expected to learn. Another student described their appreciation for how the instructor “always allowed students to control how they learned the material . . . and encouraged her students to take the course material and run with it in whatever direction they wanted. I think that approach helps students remain interested” (ID 15). These findings further support the idea that self-directed learning can improve student enjoyment and effort (Schweder and Raufelder 2022).

Success and motivation

Students in the surveyed courses consistently reported that they both learned more and focused more on their learning. Three-quarters of respondents reported that they focused more on learning in these courses, while less than a quarter said they focused on learning “about the same” as in their other courses (see Figure 1). Focusing on learning had a positive correlation ($r = 0.69$) to the amount respondents said they learned. They also described thinking about success differently and changes in their motivation for engaging.

Nearly all respondents (85%) said they learned more in these courses compared to others (see Figure 1). Several respondents explained that these courses allowed them to focus on concepts and genuine understanding rather than “memorization” and “regurgitation.” One student wrote, “This course taught me that being successful does not require you to memorize every single thing. Rather, it can be better to understand overall concepts and learn to apply them to specific examples” (ID 28). Some students attributed their increased learning to the opportunities for growth and ability to learn from their mistakes in these courses. Students noted that being able to revise assignments and being asked to reflect on their work encouraged them to succeed by focusing on improvement. Students explained, “This course really pushed me to think of success as ways of improvement” (ID 33) and “It encouraged me to understand my mistakes and to do better” (ID 96). In their written comments, other students commented that the choice and flexibility in these courses provided more motivation because it offered them multiple paths to succeed.

In responses to open-ended questions, several students discussed their learning disabilities, family commitments, and other challenges, and particularly appreciated that the flexibility of ungrading practices allowed them to maintain their motivation and to succeed in the course. One student explained:

[B]ecause I have a learning disability . . . grades cause a lot of anxiety because even though I know that I'm learning sometimes it's hard for me to demonstrate this just on an exam or something graded. Being able to not have to worry about that and solely focus on my learning has been a great experience and has definitely shown me how enjoyable school can be when I just think about learning and not tests or anxiety provoking assignments. (ID 6)

Another described the importance of flexibility in their ungrading course: "I just can't give up my family and career to be able to attend school. This course didn't make me feel like I had to" (ID 17).

For some respondents, these courses also encouraged a shift to intrinsic motivation. One respondent wrote, "Self-assessing made me realize that I am in school for myself and I am the number one person who gets to decide my grades and learning goals, not the instructor or other students" (ID 52). Others described shifting their motivation away from pleasing the instructor and towards their own learning. For example, one respondent wrote, "Far less stress on just checking boxes for a grade, instead allowed me to engage with the material without the fear it wasn't what the professor was 'looking for'" (ID 43). Finally, other students linked their increased motivation to a heightened sense of personal responsibility and accountability. Respondents explained, "I was responsible for my own success" (ID 76) and "I [needed] to prove myself more in this course than in others but . . . my own work was my proof" (ID 7).

Risks and creativity

Given that conventional grading may stifle creativity (Kohn 2011; Schinske and Tanner 2014), our results confirm that ungrading practices can encourage students to experiment, take risks, and explore creative approaches and solutions without fear of lost points and lower grades (Blum 2020). Most respondents (81%) said that they could take more risks or be more creative in their ungraded course than in others (see Figure 1).

In the open-ended responses, the ability to be creative and take risks emerged as a common reason students enjoyed their ungrading course and were satisfied with their work, and there were moderate positive correlations between creativity and interest sparked ($r = 0.66$) and enjoyment ($r = 0.52$). For example, one student noted:

There was a lot of leeway in how we could fill out assignments. I absolutely loved this. One of the hard things about traditional writing assignments is trying to make sure it perfectly meets the requirements, and it always makes me feel hindered and dry. (ID 107)

Some students pointed to specific ungrading strategies as enhancing their creativity and risk-taking and, therefore, overall enjoyment of the course. For example, a student commented, "I could be much more creative than in other classes with the learning portfolio and the final assignment. I very much enjoyed this" (ID 91). Similarly, another student explained that these types of open-ended assignments were effective because they "allowed students to research and present in any way they

wanted to. This inspired creativity and allowed us to enjoy the content” (ID 87). For some students, the ability to be creative offered them ways to demonstrate their learning in self-determined and personally relevant ways. One student, for example, appreciated how their instructor “supported my personal learning preferences by encouraging me to learn the material however is best for me” (ID 15). Another student commented: “I didn’t have to follow a rigid structure . . . I was able to show what I’ve learned in the way I wanted” (ID 62). These results align well with other research finding that ungrading can support students’ individual learning preferences and interests (Ferns, Hickey, and Williams 2021; Sorensen-Unruh 2020).

Some students described how ungrading practices enhanced their creativity because they felt less pressure to conform to specific expectations. For example, one student described the impact of feeling that the instructor trusted them and supported their creativity: “I didn’t feel pressured to conform my work to a professor’s idea of a perfect essay or project . . . I felt trusted and encouraged to be creative and take risks — no other professor/class structure has really done that before” (ID 61). Similarly, a number of students noted that the lack of penalties and ability to revise and resubmit allowed them to be more creative: “I felt that I could take risks without penalty for my grade” (ID 13); “I think I took a lot more risks because I didn’t have to worry about doing bad[ly]” (ID 6); and “I felt like I had real agency in this course to take risks and be creative without penalty. It encouraged me to run with my ideas instead of searching for the ‘right’ ideas” (ID 17).

Stress

Most students reported stress levels that were about the same (28%) or less (35%) in ungrading courses as compared to others. However, 37% reported more stress in their ungrading course (see Figure 1). This result reflects some of the concerns in the literature about ungrading: that the uncertainty, ambiguity, and unfamiliarity of these practices might have negative effects on students’ learning, especially for students who are already struggling or marginalized (e.g. Carillo 2021; Inoue 2012; Kryger and Zimmerman 2020). Further, though the literature suggests ungrading might decrease competitiveness (Schinske and Tanner 2014), which is one possible source of stress, in our study most respondents said the level of competitiveness was “about the same.”

One reason some respondents reported stress or anxiety in their ungrading course is because of the uncertainty about their performance and their final grade, which may have also led some to report more focus on grades. In courses with self-assessment, some respondents were self-critical: “The grading was a little stressful because I am my own worst critic” (ID 70) and “I always feel guilt[y] about saying I’m doing really good, so I am more likely to give myself a worse grade than I should” (ID 35). For others, being unsure about their self-assessment was a source of stress: “I struggled with determining if I was being too hard or too easy on myself” (ID 14), “I wasn’t sure if the chosen grade was accurate” (ID 45), and “I wasn’t sure what constituted quality participation” (ID 39). Indeed, some students expressed discomfort with the subjective nature of grading both in assessing themselves and providing feedback to their peers.

Additionally, flexible deadlines and/or no late penalties seemed to increase stress for a minority of students who may not have had adequate independent work and time-management skills. For example, one student commented that they would leave everything to the last minute and another expressed concern about falling behind. Finally, in courses with forms of complete/incomplete grading, some of the students found the process demoralizing: “It was a little defeating when you got an incomplete on something you worked on . . . and didn’t get any credit at all if you didn’t want to resubmit” (ID 72). In general, our findings about increased stress due to possible

uncertainty, unfamiliarity, and lack of structure confirm concerns in the case study literature about ungrading.

At the same time, the open-ended responses revealed that some key ungrading practices seemed to significantly reduce stress and anxiety for many students, which they reported had a positive effect on their learning and engagement. Many students explained that less fear of low grades—due to revision policies, self-assessment, and other ungrading practices—decreased their stress. One student commented that they were less stressed because “we could fully participate and do our writing work without the thought of it being so horrible that our grade would be bad, because we knew we would have the opportunity to learn and rewrite it if necessary” (ID 6). Another wrote that having more control over their grade decreased their stress: “[I had] less stress or anxiety because I felt more in control of my success or lack of success” (ID 56). Similarly, another explained, “there was nothing to stress about. If you didn’t do good, you fixed it and moved on without penalization” (ID 43). These findings confirm a common theme in the literature on ungrading that focusing on formative feedback and allowing final grades to reflect growth without penalty for initial mistakes helps to decrease students’ stress and increase their engagement.

Others explained that worrying less about their grades allowed them to explore the course topics and engage more deeply. One student explained:

By not constantly worrying about how my grade would be affected, I was able to take a subject we hit on in the course and go off and learn more about it if it piqued my interest. It was an opportunity to explore. (ID 113)

Similarly, another student noted that “having full encouragement to tackle the topics in a way that made sense to me gave me a sense of tremendous freedom to try new things without fear of not doing them ‘well enough’ or ‘perfectly’” (ID 103). Others discussed how the reduction of stress in their ungrading course increased their engagement: “I think I was more engaged in this class just because there was less stress so I actually looked forward to the learning and assignments. It wasn’t nearly as daunting” (ID 62). Another student wrote:

The lack of traditional grades actually felt like it removed pressure I traditionally feel in traditionally graded courses. I didn’t feel like if I missed a reading or homework that I couldn’t attend class. I never skipped class to complete missed work instead. (ID 17)

As this comment illustrates, avoiding strict or punitive policies and prioritizing flexibility can reduce pressure on students, which in turn can foster their learning and engagement.

LIMITATIONS

While our results reveal a range of positive responses to ungrading practices, our conclusions are limited. First, we lack information regarding the students’ frame of reference when comparing the ungrading courses to others. Second, although student responses indicated overall positive experiences in their ungrading classes, this might reflect some other commonality among the instructors; for example, all the instructors were engaged in pedagogical development initiatives. Third, the positive framing of most of the closed-ended questions may have influenced students’ responses; there was more variation in the distribution of the respondents’ answers across the Likert scale for some of the five neutral or negative factors (stress, competitiveness, amount of time, amount of effort, and focus on grades). However, qualitative responses were generally positive as well. Finally,

our convenience sample was not representative, the response rate was just over one-third, and survey distribution methods and incentives varied. Future research on this topic would benefit from larger and representative samples to address lingering questions about ungrading and equity, especially with respect to the experiences of first-generation students, students with disabilities, students of color, and students of different genders.

RECOMMENDATIONS

The existing literature and our analysis suggest specific recommendations for instructors pursuing ungrading. Ungrading assessment approaches may be new and ambiguous to students, leading to stress, anxiety, and suspicion about fairness and transparency (Laflen and Sims 2021; Reardon and Guardado-Menjivar 2020; Spidell and Thelin 2006). It is important to clearly explain the ungrading approach and its reasoning at the beginning (Malette and Hawks 2020). Regular reminders, guidance, and resources can help reduce ambiguity and self-doubt while flexible deadlines, resubmission opportunities, and comprehensive feedback can alleviate stress. Formal grade check-ins and discussions as well as providing scaffolding and examples for self-assessment tasks can reduce uncertainty and build trust (Hall and Meinking 2022; Malette and Hawks 2020; Spidell and Thelin 2006). Finally, inviting students to rethink how they recognize and value learning is essential. Instructors can facilitate this by discussing the meaning and purpose of grades with students and encouraging them to develop and reflect on their personal learning goals (Koehler and Meech 2022; Stommel 2023).

CONCLUSION

This study’s emphasis on student perceptions enhances our understanding of the efficacy of ungrading practices and gives us more direct insights into the challenges of ungrading for students. Despite the limitations addressed above, and the possibility that ungrading increased stress for some students, our findings show that across a range of courses, disciplines, and ungrading approaches, overall, students have positive experiences with ungrading and perceive these practices as beneficial to their learning, engagement, enjoyment, interest, and creativity. As one student noted:

It was great to focus on the learning and not the grade. I am trying to remember that with my own children now. Do I care if they got an A or if they learned something? I got A’s in plenty of classes that I couldn’t recall much information from 6 months later. Think of the extra time teachers could put into great learning experiences if they weren’t bogged down with constant grading and how free students could be if they didn’t feel like every mistake they made was on their record. (ID 113)

While not all respondents reported less focus on grades, the results of our study suggest that ungrading practices may indeed meet our highest hopes as educators: helping students meaningfully engage with their studies and refocusing both students’ and instructors’ time, effort, and attention on learning.

ACKNOWLEDGMENTS

Funding and community support from ThingStudio and the Center for Excellence in Teaching and Learning at CU Denver was crucial to this project. We also thank Timberly Roane, Lindsey Hamilton, and the instructors and students who participated in this study.

AUTHOR BIOGRAPHIES

Amy A. Hasinoff is an associate professor of communication at the University of Colorado Denver (USA).

Wendy Bolyard is a clinical associate professor in the School of Public Affairs at the University of Colorado Denver (USA).

Dennis DeBay is a clinical assistant professor of STEM education at the University of Colorado Denver (USA).

Joanna C. Dunlap is a professor of learning design and technology at the University of Colorado Denver (USA).

Annika C. Mosier is an associate professor of integrative biology at the University of Colorado Denver (USA).

Elizabeth Pugliano is a senior instructor of art history at the University of Colorado Denver (USA).

REFERENCES

- Andrade, Heidi L. 2019. "A Critical Review of Research on Student Self-Assessment." *Frontiers in Education* 4: 87. <https://doi.org/10.3389/feduc.2019.00087>.
- Blinne, Kristen C., editor 2021. *Grading Justice: Teacher-Activist Approaches to Assessment*. Lanham, MD: Lexington Books.
- Bloxham, Sue, Birgit den-Outer, Jane Hudson, and Margaret Price. 2016. "Let's Stop the Pretence of Consistent Marking: Exploring the Multiple Limitations of Assessment Criteria." *Assessment & Evaluation in Higher Education* 41 (3): 466–81. <https://doi.org/10.1080/02602938.2015.1024607>.
- Blum, Susan, editor. 2020. *Ungrading: Why Rating Students Undermines Learning (and What to Do Instead)*. Morgantown, WV: West Virginia University Press.
- Boud, David. 1989. "The Role of Self-Assessment in Student Grading." *Assessment & Evaluation in Higher Education* 14 (1): 20–30. <https://doi.org/10.1080/0260293890140103>.
- Boud, David. 1995. "What Does Research Tell Us about Self-Assessment?" In *Enhancing Learning Through Self-Assessment*. London: Routledge.
- Braun, Virginia, and Victoria Clarke. 2012. "Thematic Analysis." In *APA Handbook of Research Methods in Psychology, Vol 2: Research Designs: Quantitative, Qualitative, Neuropsychological, and Biological.*, edited by Harris Cooper, Paul M. Camic, Debra L. Long, A. T. Panter, David Rindskopf, and Kenneth J. Sher, 57–71. Washington D.C.: American Psychological Association. <https://doi.org/10.1037/13620-004>.
- Burrows, Nikita L., Jonathan Ouellet, Jaimy Joji, and Jillian Man. 2021. "Alternative Assessment to Lab Reports: A Phenomenology Study of Undergraduate Biochemistry Students' Perceptions of Interview Assessment." *Journal of Chemical Education* 98 (5): 1518–28. <https://doi.org/10.1021/acs.jchemed.1c00150>.
- Butler, Ruth. 1988. "Enhancing and Undermining Intrinsic Motivation: The Effects of Task-Involving and Ego-Involving Evaluation on Interest and Performance." *British Journal of Educational Psychology* 58 (1): 1–14. <https://doi.org/10.1111/j.2044-8279.1988.tb00874.x>.
- Carillo, Ellen C. 2021. *The Hidden Inequities in Labor-Based Contract Grading*. Logan, UT: Utah State University Press.

- Carter, Keri Lee, and John Lando Carter. 2022. “Ungrading through Portfolios: Embracing Failure in the Research Writing Classroom.” In *Confronting Failure: Building Confidence and Resilience in Undergraduate Researchers*, edited by Lisa A. Corwin, Louise K. Charkoudian, and Jennifer M. Heemstra, 94–104. Council on Undergraduate Research. <https://files.eric.ed.gov/fulltext/ED621426.pdf>.
- Cordell, Ryan. 2019. “How I Contract Grade.” <https://ryancordell.org/teaching/contract-grading/>.
- Danielewicz, Jane, and Peter Elbow. 2009. “A Unilateral Grading Contract to Improve Learning and Teaching.” *College Composition and Communication* 61 (2): 244–68. <https://www.jstor.org/stable/40593442>.
- Dochy, Filip, Mien Segers, and Sluijsmans. 1999. “The Use of Self-, Peer and Co-Assessment in Higher Education: A Review.” *Studies in Higher Education* 24 (3): 331–50. <https://doi.org/10.1080/03075079912331379935>.
- Ferns, Shaun, Robert Hickey, and Helen Williams. 2021. “Ungrading, Supporting Our Students through a Pedagogy of Care.” *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)* 12 (2): 4500–504. <https://doi.org/10.20522/ijcdse.2042.6364.2021.0550>.
- Guberman, Daniel. 2021. “Student Perceptions of an Online Ungraded Course.” *Teaching & Learning Inquiry* 9 (1): 86–98. <https://doi.org/10.20343/teachlearningqu.9.1.8>.
- Hall, Eric, and Kristina Meinking. 2022. “Letting Go of Grades: Creating an Environment of Autonomy and a Focus on Learning for High Achieving Students.” *Teaching & Learning Inquiry* 10. <https://doi.org/10.20343/teachlearningqu.10.21>.
- Hasinoff, Amy Adele. 2021. “Do You Trust Your Students?” In *Hybrid Teaching: Pedagogy, People, Politics*, edited by Chris Friend, 75–80. Hybrid Pedagogy. <https://hybridpedagogy.org/do-you-trust-your-students/>.
- Inoue, Asao B. 2012. “Grading Contracts: Assessing Their Effectiveness on Different Racial Formations.” In *Race and Writing Assessment*, edited by Asao Inoue and Mya Poe, 79–94. New York: Peter Lang.
- Inoue, Asao B.. 2019. *Labor-Based Grading Contracts: Building Equity and Inclusion in the Compassionate Writing Classroom*. Fort Collins, CO: WAC Clearinghouse; Denver: University Press of Colorado.
- Koehler, Adrie A., and Sally Meech. 2022. “Ungrading Learner Participation in a Student-Centered Learning Experience.” *TechTrends* 66 (1): 78–89. <https://doi.org/10.1007/s11528-021-00682-w>.
- Kohn, Alfie. 2011. “The Case against Grades.” *Educational Leadership* 69 (3): 28–33.
- Kryger, Kathleen, and Griffin X. Zimmerman. 2020. “Neurodivergence and Intersectionality in Labor-Based Grading Contracts.” *Journal of Writing Assessment* 13 (2): 1–12. <https://escholarship.org/uc/item/0934x4rm>.
- Lafren, Angela, and Mikenna Sims. 2021. “Designing a More Equitable Scorecard: Grading Contracts and Online Writing Instruction.” In *PARS in Practice: More Resources and Strategies for Online Writing Instructors*, edited by Jessie Borgman and Casey McArdle, 119–39. Fort Collins, CO: WAC Clearinghouse; Denver: University Press of Colorado. <https://doi.org/10.37514/PRA-B.2021.1145.2.07>.
- Linnenbrink-Garcia, Lisa, Erika A. Patall, and Reinhard Pekrun. 2016. “Adaptive Motivation and Emotion in Education: Research and Principles for Instructional Design.” *Policy Insights from the Behavioral and Brain Sciences* 3 (2): 228–36. <https://doi.org/10.1177/2372732216644450>.
- Linnenbrink-Garcia, Lisa, and Reinhard Pekrun. 2011. “Students’ Emotions and Academic Engagement: Introduction to the Special Issue.” *Contemporary Educational Psychology* 36 (1): 1–3. <https://doi.org/10.1016/j.cedpsych.2010.11.004>.
- Mallette, Jennifer C., and Amanda Hawks. 2020. “Building Student Agency Through Contract Grading in Technical Communication.” *Journal of Writing Assessment* 13 (2). <https://escholarship.org/uc/item/4v65z263>.
- McMorran, Chris, and Kiruthika Ragupathi. 2020. “The Promise and Pitfalls of Gradeless Learning: Responses to an Alternative Approach to Grading.” *Journal of Further and Higher Education*, 44 (7), 925–38. <https://doi.org/10.1080/0309877X.2019.1619073>.
- McMorran, Chris, Kiruthika Ragupathi, and Simei Luo. 2017. “Assessment and Learning without Grades? Motivations and Concerns with Implementing Gradeless Learning in Higher Education.” *Assessment & Evaluation in Higher Education*, 42 (3), 361–77. <https://doi.org/10.1080/02602938.2015.1114584>.
- McMullan, Mirjam, Ruth Endacott, Morag A. Gray, Melanie Jasper, Carolyn M.L. Miller, Julie Scholes, and Christine Webb. 2003. “Portfolios and Assessment of Competence: A Review of the Literature.” *Journal of Advanced Nursing*, 41 (3), 283–94. <https://doi.org/10.1046/j.1365-2648.2003.02528.x>.

- Nilson, Linda B. 2014. *Specifications Grading: Restoring Rigor, Motivating Students, and Saving Faculty Time*. Sterling, VA: Stylus Publishing.
- Norton, Lin, and Anne Campbell. 2007. "The Development of Reflective Practice in Higher Education: A Theoretical Perspective." In *Learning, Teaching and Assessing in Higher Education: Developing Reflective Practice*, edited by Lin Norton and Anne Campbell, 140–48. Exeter, UK: Learning Matters, Ltd.
- Perry, John, David Lundie, and Gill Golder. 2019. "Metacognition in Schools: What Does the Literature Suggest about the Effectiveness of Teaching Metacognition in Schools?" *Educational Review* 71 (4): 483–500. <https://doi.org/10.1080/00131911.2018.1441127>.
- Reardon, Kristina, and Vanessa Guardado-Menjivar. 2020. "Perceptions of Fairness in Summer Bridge Classrooms with Contract Grades." *Journal of Writing Assessment* 13 (2). <https://escholarship.org/uc/item/6qc0j26v>.
- Sackstein, Starr. 2015. *Hacking Assessment: 10 Ways to Go Gradeless in a Traditional Grades School*. Cleveland, OH: Times 10 Publications.
- Schinske, Jeffrey, and Kimberly Tanner. 2014. "Teaching More by Grading Less (or Differently)." *CBE—Life Sciences Education* 13 (2): 159–66. <https://doi.org/10.1187/cbe.cbe-14-03-0054>.
- Schneider, Jack, and Ethan Hutt. 2014. "Making the Grade: A History of the A–F Marking Scheme." *Journal of Curriculum Studies* 46 (2): 201–24. <https://doi.org/10.1080/00220272.2013.790480>.
- Schweder, Sabine, and Diana Raufelder. 2022. "Adolescents' Enjoyment and Effort in Class: Influenced by Self-Directed Learning Intervals." *Journal of School Psychology* 95 (December): 72–89. <https://doi.org/10.1016/j.jsp.2022.09.002>.
- Sorensen-Unruh, Clarissa. 2020. "Ungrading: What Is It and Why Should We Use It?" *Clarissa Sorensen-Unruh's Blog* (blog). January 14, 2020. <https://www.chemedx.org/blog/ungrading-what-it-and-why-should-we-use-it>.
- Spidell, Cathy, and William H. Thelin. 2006. "Not Ready to Let Go: A Study of Resistance to Grading Contracts." *Composition Studies* 34 (1): 35–68. <http://www.jstor.org/stable/43501638>.
- Stommel, Jesse. 2023. *Undoing the Grade: Why We Grade, and How to Stop*. Denver: Hybrid Pedagogy.
- Supiano, Beckie. 2019. "Grades Can Hinder Learning. What Should Professors Use Instead?" *Chronicle of Higher Education*. July 19, 2019. <https://www.chronicle.com/article/grades-can-hinder-learning-what-should-professors-use-instead/>.
- Supiano, Beckie. 2022. "The Unintended Consequences of Ungrading." *The Chronicle of Higher Education*. April 29, 2022. <https://www.chronicle.com/article/the-unintended-consequences-of-ungrading>.
- Talbert, Robert. 2022. "What I've Learned from Ungrading." *Inside Higher Ed*. April 27, 2022. <https://www.insidehighered.com/advice/2022/04/27/professor-shares-benefits-and-drawbacks-ungrading-opinion>.
- Tan, Kelvin H. K. 2004. "Does Student Self-Assessment Empower or Discipline Students?" *Assessment & Evaluation in Higher Education* 29 (6): 651–62. <https://doi.org/10.1080/0260293042000227209>.
- Tannock, Stuart. 2017. "No Grades in Higher Education Now! Revisiting the Place of Graded Assessment in the Reimagination of the Public University." *Studies in Higher Education* 42 (8): 1345–57. <https://doi.org/10.1080/03075079.2015.1092131>.
- Taylor, Kirsten L. 2022. "The Pandemic and Pedagogy Experimentation: The Benefits of Ungrading." In *Active Learning in Political Science for a Post-Pandemic World: From Triage to Transformation*, 79–93. Cham, CH: Springer.
- Williams, Helen. 2020. "Will Students Engage If There Are No Grades? A Review of the Evidence, and an Experiment in Ungrading." In *ICERI2020 Proceedings*, 2575–81. Valencia: IATED. <https://doi.org/10.21125/iceri.2020.0605>.

APPENDICES

Appendix A: Survey questions

Closed-ended survey questions

Respondents were instructed to “compare this course to others” on each of the following 20 factors. Each was assessed via a Likert scale (much more, somewhat more, about the same, somewhat less, much less). In tables and figures, we refer to these questions by the short label noted here.

1. AMOUNT OF TIME: The amount of time you put into this course
2. AMOUNT OF EFFORT: The effort you put into this course
3. FOCUS ON LEARNING: How much you focused on learning in this course
4. FOCUS ON GRADES: How much you focused on your grades in this course
5. ENGAGEMENT OVERALL: Your engagement in this course overall
6. AMOUNT LEARNED: How much you learned in this course
7. AMOUNT OF ENJOYMENT: How much you enjoyed this course
8. RISKS AND CREATIVITY: How much you could be creative or take risks in your work for this course
9. INTEREST SPARKED: How much the course sparked your interest in learning more about the topics
10. ALIGNMENT TO LEARNING GOALS: How much you felt the assignments and activities in this course related to the learning goals
11. HELPFULNESS OF FEEDBACK: How much feedback the instructor provided that helped you improve your performance in this course
12. ENGAGEMENT WITH FEEDBACK: Your engagement with your instructor’s feedback on your work
13. AMOUNT OF STRESS: The stress or anxiety you had about this course
14. CLARITY OF EXPECTATIONS: How clear the instructor’s expectations were in this course
15. FAIRNESS OF GRADES: How fair you felt your grades were in this course
16. COMPETITIVENESS: The overall competitiveness between students
17. INSTRUCTOR’S CARE: How much the instructor cared about your learning
18. INSTRUCTOR’S SUPPORT: How much you felt your instructor supported you
19. INSTRUCTOR’S TRUST: How much you felt your instructor in this course trusted you
20. TRUST OF INSTRUCTOR: How much you trusted your instructor in this course

Open-ended survey questions

- Please describe how your work was assessed and evaluated in this course.
- What **benefits** did the feedback, grading, and evaluation in this course have for you compared to other courses?
- What **challenges** did the feedback, grading, and evaluation in this course have for you compared to other courses?
- Please describe how the types of feedback, grading, and evaluation in this course affected **your definition of success in this course**, compared to other courses, if applicable:
- Please describe how the types of feedback, grading, and evaluation in this course affected **your engagement in this course**, compared to other courses, if applicable:

- Please describe how the types of feedback, grading, and evaluation in this course affected **the cause and/or amount of stress and anxiety you had about this course**, compared to other courses, if applicable:
- Please describe how the types of feedback, grading, and evaluation in this course affected **your ability to take risks and be creative in this course**, compared to other courses, if applicable:
- Please describe how the types of feedback, grading, and evaluation in this course affected **whether and how you acted on the instructor’s feedback**, compared to other courses, if applicable:
- Please describe how the types of feedback, grading, and evaluation in this course affected **whether and how you made changes to your work as a result of self-assessment, reflection, or work records**, if applicable and compared to other courses:
- Please describe how the types of feedback, grading, and evaluation in this course affected **you in relation to your personal learning preferences or challenges**, if applicable and compared to other courses:
- Please describe how the types of feedback, grading, and evaluation in this course affected **anything else for you**, compared to other courses, if applicable:
- If you have any recommendations for instructors who use alternative approaches to grading, feedback, and evaluation, please write them here:

Appendix B: results tables

Table B1: Respondents' reported age

Age	Count	Percent
Under 21	10	8%
21-34	83	65%
35-44	6	5%
45-54	0	0%
55-64	1	1%
65 and above	0	0%
Prefer not to say	2	2%
Not reported	26	20%
Total	128	100%

Table B2: Respondents' reported first generation status

First Generation	Count	Percent
Yes	38	20%
No	60	47%
Unsure	1	1%
Prefer not to say	3	2%
Not reported	26	20%
Total	128	100%

Table B3: Respondents' reported gender (n=128)

Respondents could write in an answer, check “prefer not to say,” or skip the question (“not reported”).

Gender	Count	Percent
Female	61	48%
Not reported	28	22%
male	25	20%
Prefer not to say	4	3%
cis man	1	1%
Cis Woman	1	1%
Cisgender (mostly)	1	1%

cisgendered female	1	1%
F	1	1%
Female she/her	1	1%
genderfluid	1	1%
Man	1	1%
she/her/hers	1	1%
Woman	1	1%
Total	128	100%

Table B4: Respondents' reported race and/or ethnicity (n=128)

Respondents could write in an answer, check "prefer not to say," or skip the question ("not reported").

Race/Ethnicity	Count	Percent
White	43	34%
Not reported	27	21%
Asian	9	7%
Prefer not to say	9	7%
Hispanic	8	6%
caucasian	5	4%
Latino	4	3%
Latina	3	2%
Black	2	2%
Caucasian/White	2	2%
African American/Black	1	1%
arab	1	1%
Asian American	1	1%
Asian; Vietnamese	1	1%
Biracial, African American and Caucasian	1	1%
hispanic and white	1	1%
hispanic/latino	1	1%
Hispanic/Latinx	1	1%

middle eastern	1	1%
Multiracial	1	1%
so white	1	1%
two races	1	1%
White / Caucasian	1	1%
White, Latina	1	1%
White.	1	1%
white/caucasian	1	1%
Total	128	100%

Note: Formatting in these tables reflects the capitalization and spelling of students' original write-in responses.

Table B5: Respondents' reported course formats (n = 128)

Courses surveyed*	Elective	Required for college, other	Required for major, minor	Total
Hybrid	5%	8%	41%	54%
3000 or 4000	5%	8%	40%	52%
5000, 6000, or above	0%	0%	2%	2%
In person	4%	2%	11%	16%
1000 or 2000	0%	0%	1%	1%
3000 or 4000	3%	2%	9%	13%
5000, 6000, or above	1%	0%	2%	2%
Online	6%	1%	14%	21%
3000 or 4000	5%	1%	10%	16%
5000, 6000, or above	1%	0%	4%	5%
Remote	1%	0%	8%	9%
3000 or 4000	1%	0%	2%	2%
5000, 6000, or above	0%	0%	6%	6%
Total	16%	10%	74%	100%

*1000-4000 level courses are undergraduate; 5000 or above are MA and PhD courses.

Table B6: Pearson (*r*) correlations between closed-ended survey questions*

Pearson (<i>r</i>)	AMOUNT OF TIME	AMOUNT OF EFFORT	FOCUS ON LEARNING	FOCUS ON GRADES	ENGAGEMENT OVERALL	AMOUNT LEARNED	AMOUNT OF ENJOYMENT	RISKS AND CREATIVITY	INTEREST SPARKED	ALIGNMENT TO LEARNING GOALS	HELPFULNESS OF FEEDBACK	ENGAGEMENT WITH FEEDBACK	AMOUNT OF STRESS	CLARITY OF EXPECTATIONS	FAIRNESS OF GRADES	COMPETITIVENESS	INSTRUCTOR'S CARE	INSTRUCTOR'S SUPPORT	INSTRUCTOR'S TRUST	TRUST OF INSTRUCTOR
AMOUNT OF TIME		0.74	0.57	0.60	0.50	0.28	0.05	0.18	0.14	0.27	0.21	0.23	0.40	0.14	0.14	0.41	0.15	0.06	0.17	0.15
AMOUNT OF EFFORT	0.74		0.70	0.45	0.68	0.44	0.28	0.37	0.35	0.45	0.36	0.43	0.22	0.21	0.31	0.28	0.28	0.17	0.35	0.31
FOCUS ON LEARNING	0.57	0.70		0.34	0.65	0.69	0.45	0.35	0.47	0.56	0.41	0.41	0.00	0.41	0.38	0.15	0.35	0.33	0.36	0.40
FOCUS ON GRADES	0.60	0.45	0.34		0.34	0.20	0.05	0.01	0.13	0.18	0.16	0.24	0.53	0.24	0.16	0.43	0.15	0.08	0.12	0.12
ENGAGEMENT OVERALL	0.50	0.68	0.65	0.34		0.62	0.48	0.40	0.45	0.49	0.38	0.45	0.07	0.28	0.31	0.20	0.36	0.29	0.42	0.39
AMOUNT LEARNED	0.28	0.44	0.69	0.20	0.62		0.69	0.43	0.61	0.64	0.49	0.48	-0.10	0.49	0.39	0.11	0.49	0.47	0.51	0.54
AMOUNT OF ENJOYMENT	0.05	0.28	0.45	0.05	0.48	0.69		0.52	0.69	0.60	0.60	0.61	-0.25	0.57	0.53	-0.01	0.62	0.70	0.55	0.64
RISKS AND CREATIVITY	0.18	0.37	0.35	0.01	0.40	0.43	0.52		0.66	0.47	0.51	0.55	-0.13	0.33	0.35	0.08	0.46	0.44	0.51	0.43
INTEREST SPARKED	0.14	0.35	0.47	0.13	0.45	0.61	0.69	0.66		0.56	0.53	0.59	-0.10	0.41	0.43	0.08	0.49	0.52	0.49	0.46
ALIGNMENT TO LEARNING GOALS	0.27	0.45	0.56	0.18	0.49	0.64	0.60	0.47	0.56		0.67	0.61	-0.05	0.60	0.60	0.06	0.48	0.45	0.43	0.46
HELPFULNESS OF FEEDBACK	0.21	0.36	0.41	0.16	0.38	0.49	0.60	0.51	0.53	0.67		0.79	-0.09	0.66	0.62	0.06	0.65	0.65	0.52	0.60
ENGAGEMENT WITH FEEDBACK	0.23	0.43	0.41	0.24	0.45	0.48	0.61	0.55	0.59	0.61	0.79		-0.01	0.53	0.55	0.06	0.65	0.64	0.60	0.66
AMOUNT OF STRESS	0.40	0.22	0.00	0.53	0.07	-0.10	-0.25	-0.13	-0.10	-0.05	-0.09	-0.01		-0.05	-0.10	0.48	-0.04	-0.17	-0.08	-0.13
CLARITY OF EXPECTATIONS	0.14	0.21	0.41	0.24	0.28	0.49	0.57	0.33	0.41	0.60	0.66	0.53	-0.05		0.64	0.16	0.51	0.58	0.39	0.53
FAIRNESS OF GRADES	0.14	0.31	0.38	0.16	0.31	0.39	0.53	0.35	0.43	0.60	0.62	0.55	-0.10	0.64		0.05	0.53	0.58	0.52	0.57
COMPETITIVENESS	0.41	0.28	0.15	0.43	0.20	0.11	-0.01	0.08	0.08	0.06	0.06	0.06	0.48	0.16	0.05		-0.01	-0.01	0.02	0.00
INSTRUCTOR'S CARE	0.15	0.28	0.35	0.15	0.36	0.49	0.62	0.46	0.49	0.48	0.65	0.65	-0.04	0.51	0.53	-0.01		0.89	0.77	0.82
INSTRUCTOR'S SUPPORT	0.06	0.17	0.33	0.08	0.29	0.47	0.70	0.44	0.52	0.45	0.65	0.64	-0.17	0.58	0.58	-0.01	0.89		0.75	0.84
INSTRUCTOR'S TRUST	0.17	0.35	0.36	0.12	0.42	0.51	0.55	0.51	0.49	0.43	0.52	0.60	-0.08	0.39	0.52	0.02	0.77	0.75		0.82
TRUST OF INSTRUCTOR	0.15	0.31	0.40	0.12	0.39	0.54	0.64	0.43	0.46	0.46	0.60	0.66	-0.13	0.53	0.57	0.00	0.82	0.84	0.82	

*Likert scale responses were converted to a numerical value (much more = 5; somewhat more = 4; about the same = 3; somewhat less = 2; much less = 1). Pearson *r* values greater than or equal to 0.75 are highlighted green. Pearson *r* values between 0.60 and 0.75 are highlighted yellow.



Copyright for the content of articles published in *Teaching & Learning Inquiry* resides with the authors, and copyright for the publication layout resides with the journal. These copyright holders have agreed that this article should be available on open access under a Creative Commons Attribution License 4.0 International (<https://creativecommons.org/licenses/by-nc/4.0/>). The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited, and to cite *Teaching & Learning Inquiry* as the original place of publication. Readers are free to share these materials—as long as appropriate credit is given, a link to the license is provided, and any changes are indicated.