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# Faculty Grading Practices and Competency-Based Education: Challenges and a New Opportunity

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**Abstract**

This paper examines how assessment and grading practices have evolved post COVID-19 pandemic. Specifically, more programs have begun implementing Competency-Based Education (CBE) in their practice. This article offers suggestions for higher education institutions and faculty considering implementation of CBE in their assessment practices.

**Keywords**

assessments, competency-based education, higher education, faculty development

## Introduction

Due to the COVID-19 pandemic, institutions of higher learning have adopted a variety of new assessment and grading practices (Lederman, 2020) which has resulted in a renewed scholarly interest in competency-based education (Clawson & Girardi, 2021; James, 2021). According to one 2015 report, roughly 600 colleges were in the design phase for some type of Competency-Based Education (CBE) program (Fain, 2015). At the time, Nodine (2015) suggested CBE programs "remain small in comparison with the vast landscape of American Higher Education" (p. 5). More recently, some individual institutions and programs within colleges and universities have shared successful transitions to CBE (Boykin et al., 2020; Hagan-Short & Addison, 2019). Yet, few colleges and universities have gone "all in" with CBE; therefore, understanding faculty perspectives towards CBE is an important consideration (Hanley & Livingston, 2019) if more

institutions and programs desire to make reform their courses and programs resulting from the COVID-19 pandemic).

According to Malan (2000), CBE encompasses six characteristics:

1. explicit learning outcomes with respect to the required skills and concomitant proficiency (standards for assessment)
2. a flexible time frame to master these skills
3. a variety of instructional activities to facilitate learning
4. criterion-referenced testing of the required outcomes
5. certification based on demonstrated learning outcomes
6. adaptable programs to ensure optimum learner guidance. (p. 23)

Merely declaring a program or course is based upon these characteristics is not enough to assume faculty have the appropriate perspective to implement CBE. A study at an emerging CBE program suggests faculty onboarding is a challenging, yet necessary component of a successful transition (Ashby et al., 2018). As such, universities may need to consider the "disconnect between the characteristics of CBE and the faculty's conceptions of it" (Pérez & Clem, 2017, p. 13). Additional discussion is needed to consider how some faculty teaching practices currently reflect a misinterpretation of CBE characteristics.

This paper focuses on the first and fourth characteristics, which can be important perspectives to consider for a faculty member accustomed to teaching outside of CBE. When CBE courses incorporate criterion-referenced testing, faculty emphasize and assess *what* a student knows (product criteria) in reference to explicit learning outcomes using descriptions of performance across a range of levels (Green, 2002). This contrasts with emphasizing *how* students got to this point of achievement (process criteria) or their learning enabled behaviors. Indeed, Bral and Cunningham (2016) propose that faculty are accustomed to including process criteria such as participation and attendance in their grades rather than using assessments that solely measure specific outcomes. In turn, faculty asked to transition to a CBE model may be unfamiliar with or even resist the assessment and grading practices inherent within the characteristics of CBE. Getting assessment and grading right is critical for institutions and programs using CBE because employers seeking to hire graduates depend directly on these qualifications (Meyers, 2018). Yet, in traditional institutions transitioning to or adopting CBE, courses are often developed based upon existing courses (Nodine & Johnstone, 2015) with little or no changes of grading practices.

Therefore, it is important to understand factors that influence faculty grading practices and how they should be modified to align with CBE characteristics. As such, the purpose of this paper is to document several important factors typically influencing higher education faculty grading practices as they relate to CBE characteristics and recommend a few ways to approach these

barriers. Two such factors include a tradition of composite grading and institutional norms. After discussing these factors, practical recommendations and areas for future research will be offered.

## Composite Grading in United States Higher Education

Grades are often perceived as a means of motivating students while also a default criterion for employers and graduate schools to identify the best candidates (Rojstaczer & Healy, 2012; Schinske & Tanner, 2014). One challenge is for faculty to agree on the purpose of grades and the related criteria that should be used to determine a letter grade. Too often, "the path to higher grades and the path to learning do not necessarily lead in the same direction" (Pollio & Beck, 2000, p. 100). As such, for the past forty years, CBE advocates have suggested traditional grading and transcript structures need to change (Collins & Nickel, 1974). Indeed, traditional points-based grading provides the allure of objectivity that is difficult to support: What is the difference in learning between a student who has an 80% or an 82% in a course?

Grades in higher education have traditionally included an omnibus model of combining factors such as participation, extra credit, and other characteristics that are not necessarily connected to the learning outcomes of the course (Brookhart et al., 2016; Walstad & Miller, 2016). Traditional grading practices in education attempt to serve more than one purpose, a term Brookhart (1991) refers to as "hodgepodge grading." For example, a recent study of United States college and university grading practices suggests faculty in introductory courses frequently evaluate students on a composite of product criteria such as mastery of a course or program learning outcome and process criteria such as participation and attendance (Lipnevich et al., 2020). Additional studies of higher education courses confirm that students and faculty have attributed grades to a composite of product and process criteria (Adams, 2005; Tippin et al., 2012; Zinn et al., 2011).

These composite grades work against the ideals of CBE, in which learning outcomes are clearly articulated and criterion-referenced assessments provide the instructor with evidence of the extent to which these learning outcomes have been met (Malan, 2000). When faculty implement criterion-referenced assessment practices in accordance with CBE characteristics, they are likely to report the course-learning outcomes and the degree to which students have learned them, rather than curating and prioritizing points that are not necessarily connected to achievement of the learning outcomes. Moving away from points-based composite grading and towards reporting explicit learning outcomes may unmask areas where a student has not mastered an essential skill. For a more in-depth description, Table 1 compares CBE characteristics and traditional composite United States higher education grading practices.

**Table 1**

***Comparison of CBE Characteristics and Traditional United States Higher Education Grading Practices***

| CBE Characteristics (Malan, 2000) | Traditional U.S. Higher Education Grading Processes |
|---|---|
| Explicit learning outcomes with respect to the required skills and concomitant proficiency (standards for assessment) expectations | Composite grades include process factors (i.e., participation, attendance, and perceived level of effort) and product factors such as achievement |
| Criterion-referenced testing of the required outcomes | Grading on a curve<br><br>Lack of unity around the criteria used to determine letter grades |

## Institutional Norms Influencing Faculty Grading Practices

In the eyes of some faculty members, grading is viewed as a time-consuming process with a perceived small return on investment (Hu, 2005; Schinske & Tanner, 2014). With shrinking university budgets and increased workload demands, institutional norms have placed pressure on some faculty to prioritize their time and efforts to secure or maintain employment. This section will describe how institutional norms such as faculty rank and workload expectations may assist in shaping faculty views towards grading.

Faculty rank (i.e., contingent, term, probationary, and tenured faculty) is one institutional norm that may influence faculty grading practices. Faculty with probationary or less secure rank tend to award higher grades when compared to their more senior colleagues (Filetti et al., 2010; Kezim et al., 2005; Moore & Trahan, 1998). Indeed, probationary and term faculty may inflate their grades based upon their lack of teaching experience or to receive more positive student evaluations which can assist in "purchasing" or maintaining future employment (Moore & Trahan, 1998; Sonner, 2000). Confirming this theme, a recent analysis of student evaluations of teaching research suggests students reward teachers who are more lenient in the grading with more positive student evaluations (Stroebe, 2020). As such, faculty may feel incentivized to implement less stringent assessment and grading methods (Keng, 2018), which is in contrast with CBE characteristics of criterion-referenced assessments designed to certify learning based on demonstrated learning outcomes.

A second institutional norm that may shape faculty views towards grading is workload expectations resulting in less time to thoughtfully grade students. One such institutional norm related to workload expectations is the responsibility administration places upon faculty to balance teaching, scholarship, and service responsibilities. For example, one report suggests that while faculty workload varies across institutions, increased scholarship expectations at research intensive universities has further decreased the amount of time faculty spend on teaching (Fairweather & Beach, 2002). Grading in United States colleges and universities is "typically considered to be part of the 'academic freedom' extended to faculty members" (Lipnevich et al., 2020, p. 3) which, coupled with increased workload expectations, may perpetuate the replication of traditional grading and assessment practices. In summary, a decreased emphasis on teaching and a tradition of academic freedom are examples of institutional norms encouraging faculty to maintain the status quo in their grading practices.

## Recommendations

In this section, institutions of higher education interested in taking a next step towards CBE implementation are offered initial recommendations in addressing composite grading practices and the institutional norms shaping faculty perspectives towards grading. These recommendations include two grading models that provide faculty with an opportunity to make incremental progress towards CBE without the need of full institutional support (Townsley & Schmid, 2020). In doing so, university centers for faculty excellence in teaching should consider offering workshops to onboard faculty in implementing these grading models as part of a larger CBE support system.

One way of moving away from omnibus models of combining process and product criteria in grading is to incorporate mastery grading. In short, mastery grading involves assessing learning such that grades are based solely on whether or not students meet a clear list of outcomes (Campbell et al., 2020; Kelly, 2020; Kreiner, 2006). More broadly, mastery grading encompasses three distinct features:

1. *A clear list of objectives and success criteria.* Students are provided a list of the course outcomes and the characteristics of demonstrated competency.

2. *Assessment for mastery, not points.* Student work is evaluated for mastery of course objectives using a scale such as "demonstrates mastery" or "not yet."

3. *Eventual mastery matters.* Students are provided multiple opportunities to demonstrate competence of the course objectives. Revisions and reattempts are the norm rather than the exception (Campbell et al., 2020, p. 838).

Within mastery grading (MG), faculty utilize qualitative categorical descriptions of student performance in relation to explicit learning outcomes when providing feedback on individual assessments rather than points and percentages. Harrison (2020) recommends identifying four levels of student cognitive performance such as *advanced, proficient, intermediate,* and *beginner*. Insufficient evidence may also be used when a student was absent on the day of the test or has not yet turned in an assessment. In doing so, students are provided forgiveness for past performance when accompanied with evidence of new learning within a grading system that better reflects their competence (Collins et al., 2019). Faculty utilizing MG techniques report a shift in student perspective in which the responsibility to master the content rests more on the learner's shoulders (Linhart, 2019). Mastery grading also permits students to become certified based on demonstrating learning outcomes and sets the stage for students to learn at their own pace (Kreiner, 2006), both characteristics of CBE.

In order to address workload expectations resulting in decreased time, university centers for faculty excellence in teaching should consider offering support for an alternative grading system called specifications grading. In 2015, Linda Nilson wrote the book, *Specifications Grading: Restoring Rigor, Motivating Students, and Saving Faculty Time* describing tenets of a grading system in general alignment with the characteristics of CBE. Assessments are criterion-referenced and graded *satisfactory/unsatisfactory* or *pass/fail* depending upon the learning outcomes. Specifications grading differs from other forms of mastery grading in that students earn credit or not depending upon the specifications determined by the instructor (Campbell et al., 2020) and bundled assignments are noted on the syllabus for students in the form of contract grading (Mendez, 2018; Pope et al., 2020). In specifications grading, an "all or nothing" approach is utilized which permits faculty to more efficiently determine students' level of mastery. Nilson (2015) proposed specifications grading reduces time faculty spend on grading, a theme confirmed by Mendez (2018) and Williams (2018). Furthermore, some students have reported positive reviews of specifications grading due to its transparent learner expectations (Pope et al., 2020;

Williams, 2018), which may be of benefit to faculty concerned with receiving positive student evaluations.

It should also be noted that specifications grading may create some initial time constraints for faculty to work through such as aligning course learning outcomes with assessments for each course (Carlisle, 2020; Williams, 2018). In addition, previous implementations of specifications grading suggest a need for faculty to spend additional time explaining the grading system to students (Pope et al., 2020). Despite these initial time commitments, specifications grading offers faculty an opportunity to reallocate time previously spent on grading or more efficiently utilize finite windows of time currently allocated for grading.

## Additional Research

Faculty who are unfamiliar with creating, administering, and scoring criterion-referenced assessments, inherent in both recommended grading systems, may need to undertake calibration sessions with colleagues to assess and report mastery. These calibration sessions may include the use of double-blind scoring and anchor papers among faculty who teach similar courses or have similar areas of content expertise. As such, future research should investigate ways in which university centers for teaching and learning effectively support faculty in implementing these new assessments and scoring techniques. Finally, additional investigation is needed to understand successes as well as any new challenges mastery grading and specifications grading may pose related to the objectives of CBE from the perspectives of faculty and students. The current context is ripe with opportunity to better understand how the temporary grading changes made due to COVID-19 may become more permanent in higher education.

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