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Defending against external influences on educational data: the role of policies and procedures

Emily Faulconer & Debra Bourdeau

Within higher education, there has been increased focus over recent decades on evaluating our teaching practices to provide high-quality evidence of student learning for both internal and external assessment. Even at institutions without a college of education, many faculty are engaged in the scholarship of teaching and learning (SoTL) and/or discipline-based educational research (DBER). While studies are very diverse, and include qualitative and quantitative measures, common data points include student assessment scores and final course grades. In investigations using these measures, researchers acknowledge various mediating and moderating variables, but one particularly impactful variable is often ignored – administrative policies and procedures.

One policy that could influence student measures of mastery (e.g., assessment scores and final course grades) is extra credit. While extra credit offered to students as an incentive for participation in SoTL or DBER research would (ideally) be disclosed in the methodology, extra credit can also be offered for a variety of other reasons. The tasks for earning extra credit are not always tied to content mastery, including attending on-campus events (Foltz et al., 2021) and completing end of course evaluations (Jaquett et al., 2016). This approach to extra credit could artificially inflate grades. Another concern here is that the students who most need extra credit are not as likely to participate, which can further skew the data (Mays & Bower, 2005). The influence of extra credit is nuanced, though, as some studies have shown that it does

not increase motivation for completing certain course activities (Planchard et al., 2015). While some academic departments may have policies regarding extra credit, the form of extra credit and awarding of extra credit largely falls to faculty, introducing noticeable variability across sections of a course. A recent study reported that 1.7% of student grades changed by a letter grade based on extra credit and 4.3% changed based on post-hoc instructor adjustment of grades (M. James, 2023) when submitting official final course grades. Another issue is that extra credit often is not reflected on the rubric which can impact the consistency and accuracy of how the rubrics are used to determine the final grade. If researchers are using rubric lines (or even total scores) to determine mastery of LOs, this can compromise the data. When educational data is collected by someone other than the instructor, it may be very challenging to identify the presence of this variable, let alone account for it as a moderating and/or mediating variable.

Another policy that could influence student measures of mastery include late penalties. Similar to extra credit, these policies may have some level of administrative oversight but are largely left to the faculty to determine and administer, either manually or through their learning management system. Some studies acknowledge a late penalty that may have influenced results (Ferrandino, 2016; Reilly et al., 2021), though largely this influence on grades is not acknowledged in published SoTL and DBER research. Instructors may waive late penalties on an individual basis, too, increasing potential for bias in application of this policy (Bonner & Chen, 2009). Furthermore, grading academic *behavior* rather than performance does not adequately or accurately show attainment of outcomes. You could have a student demonstrate

mastery of an outcome but the deliverable was downgraded (or not accepted) due to late penalties.

The influence of administrative policies on measures of mastery can also be more nuanced. Recently at our institution there was a department-wide debate about how severe of a penalty to apply to student work where they did not sign an ethics statement. The suggested penalties by faculty in the department ranged from a 10% to a 100% penalty. There was no conversation among the faculty about how this policy might impact the quality of the course mastery data, which is not just important for SoTL and DBER research but is also used by faculty for self-evaluation and used by the institution for general education assessment measures.

The consequences of these policies on measures of learning mastery result in an incomplete – or even erroneous – understanding of the influence of specific measured variables on learner outcomes and content mastery. As administrators, it is important to consider how these types of policies (or lack of consistent policies) could influence the integrity of the data collected and used for a variety of purposes internally and externally.

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