

A Case Study on Flexible Design: Eliminating Documentation Requirements for Academic Adjustments on a Test (Practice Brief)

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Abstract

Obtaining and submitting documentation related to disabilities to instructors is a known barrier to students accessing necessary accommodations. We assessed whether the implementation of a universal course design procedure, an automatic re-weight for students who missed a midterm exam without requiring documentation, was associated with differences in midterm examination attendance relative to a previous course offering when documentation was required for such an absence. In 2018, a large ($n = 1897$) first-year course introduced a fall midterm examination that required documentation for assessment reweights resulting from a missed exam, and in 2019 ($n = 1795$) assessments were automatically (i.e., no documentation required) re-weighted for students who missed the exam. We expected that the midterm attendance rate for the 2019 (no documentation required) exam would be significantly lower than the 2018 fall midterm exam attendance rate. However, our results revealed that removing the requirement for documentation was not associated with an increase in exam absences. These findings indicate that flexible practices can be effective in promoting accessibility while not significantly affecting student engagement and completion of summative assessments. However, we did not assess for any differences in learning because of this missed testing practice, and there are limitations such that these findings may not generalize to other student populations. We call for further discussion and research with respect to the learning-related consequences of re-weighting assessments.

Keywords: accessibility, higher education, flexible design, inclusive design, assessment

Summary of Relevant Literature

Postsecondary educators and disability service employees in Canada and the United States are seeing continued increases in the prevalence of students requiring academic accommodations due to disabilities. For example, the prevalence of postsecondary students with learning disabilities (LD) has tripled over the past three decades, with current estimates ranging from 3-11% of the undergraduate student body having a diagnosed LD (Canadian University Survey Consortium, 2019; Cole & Cawthon, 2015; Joyce & Rossen, 2006; Kurth & Mellard, 2006). Although LD were previously the most common type of disability seen by disability service offices (DSO), mental health disabilities are increasing at a significant rate (Harrison, Holmes, & Harrison, 2018). For example, demonstrating the rapid rise in mental health disabili-

ties, community colleges in Ontario have had a 110% increase in mental health disabilities requiring accommodation from 2009-2015 (Deloitte Canada, 2017).

Given a diverse and changing landscape for student needs, postsecondary institutions must consider ways to support growing numbers of students with varied disabilities, and to reduce barriers to access. For example, known barriers to students accessing accommodations in higher education include lack of understanding of campus systems for support, concerns of instructor reactions, accessing documentation, and overwhelmed Student Disability Office (SDO) staff (e.g., Toutain, 2019).

Directly addressing the barrier of accessing documentation, the Association on Higher Education and Disability (AHEAD) has argued that medical documentation need not be required for the implementa-

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tion of disability related accommodations (Lovett et al., 2015). Instead, they argue that when determining appropriate accommodations, disability resource professionals should consider multiple forms of information including student's self-reported experiences, observations and interactions, and information from third parties as relevant. Importantly, students should not be subjected to burdensome processes to access their accommodations.

Increasing Flexibility

There are a variety of ways in which the environment can be altered, without impacting learning outcomes, to provide flexibility and increase accessibility. The most proactive approach to increasing accessibility is to *design* for it. Designing for inclusion is exemplified by Universal Design (UD). Universal Design "is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability" (National Disability Authority, n.d.). There are a variety of applications of UD to education, including Universal Design for Learning (UDL; Rose & Meyer, 2000), Universal Design for Transition (UDT; Thoma et al., 2009), Universal Design for Instruction (UDI; Scott et al., 2003), and Universal Instructional Design (UID; Higbee, 2009). Although there are some differences between each of these approaches to designing for inclusion, they share the goal for developing and implementing best practices for increasing accessibility in education for students with disability (Reardon et al., 2021).

Designing for inclusion prior to delivering a course is best practice. In reality, (re)designing courses with fully inclusive content, delivery, assessment, and feedback channels may not be immediately feasible for instructors and institutions. Thus, it is helpful for instructors to consider methods to increase flexibility that do not require full course redesign, and that can be easily implemented. One model that has been proposed to support flexibility in course deliveries is to encourage instructors to think about just one thing (framed as "plus one") that they could do to increase flexibility (e.g., Behling & Tobin, 2018). It reflects the notion that even small changes can have significant impact, which inspired this current work.

Depiction of the Problem

There is a need for courses to be inclusive, and an obligation for instructors to remove barriers to inclusion. As noted, providing acceptable documentation to justify the need for accommodation is a barrier for some students accessing necessary accommodations.

Further speaking to challenges surrounding documentation, having confidential health documentation shared across many courses creates risks of privacy violations, and confidentially managing this information may be especially challenging for instructors in large courses. The current work demonstrates outcomes in a large course when the need for documentation for missing a midterm test in order to have academic adjustment (re-weighting) applied was removed, removing a known barrier for students, and also reducing administrative challenges for instructors.

Description of Practice

We conducted the current study in a large, full-year introductory psychology course. The practice described in the current work is focused on the eliminated need for documentation for a missed midterm test, and the impact this had on attendance.

In 2018, the course implemented a fall midterm examination to help provide students with early feedback regarding their learning. The midterm was intended to be reflective of a typical final examination-testing environment to provide students with early and lower-stakes exposure to a testing situation. If students missed the midterm in 2018 for any reason, including reasons due to disability or extenuating circumstances such as illness, documentation was required for academic adjustment. Students also required documentation for extra time required due to a disability. In 2019, the course again included the fall midterm examination (worth the equivalent grade weight as 2018) but also implemented design features that allowed flexibility for students who needed additional time as well as flexibility for those who could not attend the exam without the need for documentation. Specifically, we provided all students with time-and-a-half (a common accommodation for disabilities) and implemented an automatic re-weight policy such that, for students who missed the exam for any reason, the midterm exam grade weight was automatically shifted to the December exam. In addition to significantly reducing burdens for students who had to miss the exam for any reason and increasing accessibility for students who required extra time but did not have access to accommodations for any reason, these features also helped to minimize DSO time pressure for assessment early in the academic year, eliminated the need for students to disclose and submit documentation for review, reduced email volume related to missing the assessment, and reduced the number of manual overrides in the LMS gradebook (the adjustment was made at the course-level with a formula applied to all grades, rather than on a student-by-student basis).

As a result of waiving the requirement for documentation to access extra time or to reweight assessments if the exam was missed, we expected that the midterm attendance rate for the 2019 (flexibly designed) exam would be significantly lower than the 2018 attendance given the lack of consequences for missing the assessment, and that this would necessitate a reconsideration of how to begin to create more inclusive assessments in a large course.

Participant Demographics

The 2018/2019 participants were 1897 students in a large first-year course who were enrolled in the course on the date of the October exam. The 2019/2020 participants were 1795 students enrolled in the same large first-year course the following academic year on the date of the October exam.

The 2018 Examination

In both the 2018/2019 and 2019/2020 course deliveries, the introductory course had three exams: one in October (midterm), one in December (midyear) and one in April (end of year). The 2018 October midterm examination was 1.5 hours in length and included 30 multiple choice and three short-answer (written response) questions. The exam was worth 15% of the course grade, with the short-answer section worth 2/3 of the exam score (10% of the course grade) and multiple-choice section worth 1/3 of the exam score (5% of the course grade). A total of 1,811 students (95.5%) wrote the exam out of a total of 1897 students enrolled at the date of the October exam. Students who had formal documentation requiring accommodations due to a disability approved through the SDO, or who requested academic adjustment and were approved through the Faculty office, had their midterm exam course weight shifted to the final exam. Students without approved documented absences were assigned a grade of 0% on the exam. Students that required extra time on the exam, or other such accommodations, needed to have official SDO-produced letters of accommodation. Obtaining these letters required an intake appointment with the SDO. Rates of students who had access to accommodations on the date of the exam are not available.

The 2019 Examination

In 2019, the midterm examination was comprised of 60 multiple-choice questions and was designed to take 1-hr in to complete. The exam was also worth 15% of their course grade. As previously mentioned, in 2019 we implemented policies that allowed students flexibility for missing the exam without the need for documentation, and time-and-a-half was

granted to all students, eliminating the need for students with disability to engage with systems to access accommodations for extra time. Specifically, all students were given 1.5 hours to complete the 1-hour exam (“time-and-a-half”), and any students absent for the exam automatically had their midterm exam weight shifted to the December midyear exam (no documentation required). A total of 1,741 students (96.9%) wrote the exam out of a total of 1795 students enrolled at that date.

Evaluation of Observed Outcomes

Contrary to our expectations, eliminating the need for documentation for missing the exam to access academic adjustment did not increase absences for the exam: the attendance rate was 95.5% when documentation was required for academic adjustment in response to missed exams in 2018, and it was 96.9% when the requirement for documentation was removed in 2019.

Implications and Portability

Higher education must design inclusive and accessible courses. Although there are many formal frameworks for universal design as applied to education, linking with the zeitgeist of “plus one” (Behling & Tobin, 2018), formal adoption of a framework for inclusivity in the classroom is not required to have substantial impact for students. Indeed, integrating flexible practices in existing courses can be quite easy for instructors and yet have significant positive benefits for students. Our naturalistic comparison provides some support for the notion that flexible practices can be effective in promoting accessibility, while actually *minimizing* administrative resources, with no significant impact on student engagement and completion of critical assessments.

Despite the necessity of increasing accessibility, and despite instructors generally having positive attitudes towards flexible design practices, some instructors may not put flexible design practices into action (Lombardi, Murray, & Gerdes, 2011). The current work provides one example of flexible design that can be shared with instructors of a large course. We hope that the current work also inspires instructors, and their disability support teams, to systematically implement flexible design in courses. Specifically, instructors and SDOs can work as a team to support inclusive, accessible, and high-impact educational practices. Instructors may be willing and eager to increase accessibility in their courses but may have reservations about the feasibility of such practices.

Yet, as our work and the work of others (e.g., Behling & Tobin, 2018) demonstrates, there are ways that courses can become more flexible with low administrative challenges. Indeed, in our work, we *reduced* administrative challenges in our quest to increase accessibility. By equipping SDO staff with insights into high-impact teaching practices that facilitate accessibility, and by sharing design practices and assessing their outcomes, postsecondary teams can collaborate to develop systems that are student-centered and effective at facilitating student success.

Student needs, world events, and local contexts must be considered intentionally when considering the impact of flexible design practices. For example, in the current work, the assessments were held early in a first-year course. As a result, students may have been unfamiliar with accommodations available to them, and thus less likely to access them. Further, considering that the timing of this assessment occurred relatively early on in the academic year, students may not be facing the same stressors relative to the final exam period when conditions may be more likely to flare with increased stress. Factors like these, and others including impacts from the pandemic, highlight the risk in generalizing these findings, and indeed these factors would be interesting moderators to further explore for the efficacy of flexible design features.

Individual implementations of flexible course design may not always be beneficial, and accommodations such as reweighting need to be considered carefully. Of course, missing assessments might mean that students have not demonstrated their learning of key outcomes, but there are perhaps even more important considerations related to *learning*. Research demonstrates that the act of testing itself can increase learning (Roediger & Karpicke, 2006). It could be that using re-weighting as a strategy to increase flexibility ultimately disadvantages students by removing the opportunity for them to take an exam (versus a practice exam). Another potential unintended consequence of re-weighting exams involves the increased pressure on the subsequent assessment. This increased pressure on a later assignment may result in negative outcomes, especially for students who have conditions that become exacerbated with stress.

Limitations

It is important to note that we used a non-experimental design. Thus, confounds were potentially present. For example, the components of the exam varied from 2018 to 2019. Specifically, the 2019 exam contained multiple choice only, whereas in 2018 there were also written answer questions. All students were

additionally provided with extra time in 2019 which was not present in 2018. We anticipated reduced attendance in 2019 when these flexible practices were implemented and did not find evidence of this, but it could be that students felt more willing to engage in a multiple-choice only exam, especially with extra time, and students were therefore more willing to take the exam. Further, it could be that re-weighting to the December exam, which tested more material, was undesirable and writing the test was perceived by some as being better than reweighting it.

Limitations such as the lack of experimental research addressing learning outcomes associated with various forms of flexibility, highlight our call for further quantitative research on the outcomes associated with variety course design practices. Indeed, others have also made this call (e.g., Cumming & Rose, 2021). Capitalizing on educational shifts as a result of COVID-19, it may be that some unexamined empirical evidence already exists to address outcomes associated with increased flexibility. For example, in light of the pandemic and other significant world events, many institutions have encouraged instructors to be flexible with deadlines and assessment requirements. These newly implemented flexible practices may provide a unique opportunity for instructors to reflect on the benefits and challenges associated with reducing barriers to participation with the benefit of Learning Management System (LMS) and historical data.

In conclusion, there is a need to increase accessibility in higher education. We argue that empowering SDO staff with ideas for small, evidence-based changes towards flexibility that can be suggested to instructors can have significant positive benefits for students. We also argue that quantitative research on the outcomes associated with inclusive course design practices will help to identify benefits and challenges of flexible course policies for students, instructors, and higher education systems more broadly. By identifying these benefits and challenges associated with various types of flexible design, and their common moderators, practices and systems can be developed in ways that support student success.

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