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Résumé de l'article

In undergraduate university courses, the assessment methods often lack variety, which can lead to significant stress for both students and educators. It is becoming increasingly apparent that incorporating a range of assessment types could alleviate this stress and better accommodate diverse learning styles (Leite et al., 2010). Elective Grading (EG) is an approach to assessment that empowers students to determine their own grade weighting, based on their own learning goals and progress. EG can be implemented by using simple algebraic formulas to increase or decrease the original grade by the amount elected by the student. Using computer-based spreadsheet technology, EG can be included in a dynamic system that responds to the student's work, rather than relying solely on the instructor's evaluation. This article explains the rationale behind adopting an EG system, exploring a different option for students to re-weigh tests and assignments to reduce the perceived impact of each assessment, with no grade inflation. This flexible approach can mitigate student stress and anxiety, and practical strategies for its implementation across the curriculum. EG can enhance student learning and engagement from both the instructor's and the students' perspectives. Students can use EG to adapt their own assessment preferences that may reduce stress and improve learning outcomes.

Empowering Students Through Elective Grading in a University Setting

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Abstract

In undergraduate university courses, the assessment methods often lack variety, which can lead to significant stress for both students and educators. It is becoming increasingly apparent that incorporating a range of assessment types could alleviate this stress and better accommodate diverse learning styles (Leite et al., 2010). Elective Grading (EG) is an approach to assessment that empowers students to determine their own grade weighting, based on their own learning goals and progress. EG can be implemented by using simple algebraic formulas to increase or decrease the original grade by the amount elected by the student. Using computer-based spreadsheet technology, EG can be included in a dynamic system that responds to the student's work, rather than relying solely on the instructor's evaluation. This article explains the rationale behind adopting an EG system, exploring a different option for students to re-weigh tests and assignments to reduce the perceived impact of each assessment, with no grade inflation. This flexible approach can mitigate student stress and anxiety, and practical strategies for its implementation across the curriculum. EG can enhance student learning and engagement from both the instructor's and the students' perspectives. Students can use EG to adapt their own assessment preferences that may reduce stress and improve learning outcomes.

Introduction

The advent of computer-based spreadsheet technologies (Excel™, Numbers™, etc.) has easily enabled the restructuring of assessment by placing some control over grading in the hands of the student rather than the instructor. Challis (2005) remarks, "Assessment lies at the heart of the

university undergraduate experience" (p.519). This article demonstrates an approach to increase students' sense of empowerment in the assignment of grades and how this can be undertaken. We call this approach Elective Grading (EG). Having described the characteristics of EG, this article considers how it can achieve pedagogical aims within the confines of the senate-mandated course comparison index, which is designed to ensure that grades are consistent across the institution and avoid grade inflation.

In 2020, there was a rapid transition to online courses due to the onset of the COVID-19 pandemic (Telles-Langdon, 2020). As the pandemic has stabilized, it is worth reflecting on some of the issues that have emerged because of the measured transition back to more traditional modes of teaching. Following the massive changes during the pandemic, there is renewed interest in understanding how different variations in assessment style can impact the design and implementation of courses, regarding assessments. Assessments play a crucial role in evaluating student learning, but using the same types of assessments repeatedly can create a monotonous learning experience for students, leading to stress and anxiety.

One place within assessment that could provide more control to students is through the grading scheme. Outside of testing, most forms of assessment allow for some control over the product of the assessment. However, the grading scheme is traditionally pre-determined by the assessor. Allowing for some management over the grading scheme could potentially improve student self-efficacy and increase positive achievement emotions.

This article highlights how the growing issue of student mental health can be moderated by providing students with a sense of empowerment by following Bandura's (1977) self-efficacy model. In the late 1960's, Albert Bandura coined the concept of self-efficacy, and in his 1997 book, he highlighted its importance to student's cognitive self-efficacy as they adapt to changes in their learning environments. The concept is often lost in current educational paradigms. The effect of self-efficacy on academic achievements is among the most important issues that have been raised in educational research. Generally, the literature indicates two broad areas of focus in educational research: teaching and learning, and assessment and evaluation.

This article will explain how to effectively implement EG and address salient issues related to the various calculations required to make the system straightforward for the instructor, as well as the implications when such an assessment is used for credit. EG has the potential to improve student mental health, by providing increased self-efficacy and more positive achievement emotions. However, it should be investigated further within higher education as an alternative approach to assessment, and to assess its impact on the quality of learning.

Increasing student engagement

Student engagement, where students are actively involved in their learning activities, has been consistently shown to correlate positively with academic achievement (Lei et al., 2018). Therefore, promoting student engagement is of critical importance for educators who are looking for new ways to boost academic achievement for their students. By providing them with novel opportunities to engage with their learning through an EG scheme, students are not only given a new form of academic engagement, but they can also promote their self-efficacy beliefs, as well as holding more control over their academic tasks.

Self-efficacy is people's beliefs in their abilities to complete a task, whereas students with high self-efficacy hold a firm belief that they have the capacity to succeed (Bandura, 1977). Within education, it has been shown that high self-efficacy correlates with greater academic achievement, engagement, and motivation (Butz & Usher, 2015; Honicke & Broadbent, 2016; Yusuf, 2011). An

EG scheme can support self-efficacy, as it allows students to adjust the grading distribution to more accurately reflect their individual self-efficacy beliefs. This allows students to increase the grade weight for assignments, which they believe they can complete with a high degree of success, while reducing the grade weight for assignments for which they are less confident in their ability to succeed. By allowing students to adjust the grading distribution to reflect their self-efficacy beliefs, it would be expected that the correlates of higher self-efficacy will follow as well.

Pekrun's (2006) Control-Value Theory of Achievement Emotions indicates that when students have a sense of subjective control over academic tasks, and they believe the task to be valuable, they will experience more positive achievement emotions, with respect to the task. By supporting students' control and value beliefs about a task, it would follow that they are much more likely to experience emotions, such as anticipation and enjoyment of assignments, rather than emotions such as anxiety, frustration, or boredom. An EG scheme can support both the control and value beliefs of students. Firstly, an EG scheme transfers some amount of control over the assignment grade weights from the instructor to the student, while still being reasonably bounded through the limitations in the grade weight manipulation scheme, which is provided by the instructor. Secondly, an EG scheme can support value beliefs, by allowing students to assign more grade value to the assignments which hold more individual value to the student. By supporting the control and value beliefs of students in this way, the correlating positive achievement emotions can be expected to follow.

Flexible assessment

Flexible assessment has gained increased attention in recent years, due to the potential benefits it offers for accommodating the diverse assessment preferences of students. These assessments provide a range of options for learners, allowing them to choose the format that best suits their assessment style and preference.

Offering a flexible assessment system is an excellent way for instructors to cater to different assessment preferences, reduce the stress and anxiety levels in their students, increase motivation and engagement, and ultimately enhance learning outcomes, as students feel empowered and in control of their own learning experiences (Cook, 2001; Kessels et al., 2024; Wanner & Palmer, 2015). Flexible assessments allow students to choose options that best fit their perceived academic strengths, providing a more personalized learning experience. Flexible assessments can take several forms, ranging from re-weighting options, where students can choose to give more weight to certain assignments or tests that they feel more confident about, and reduced impact of those where they have less confidence, or if it is not aligned with their workload in other courses. It is important to note that implementing these strategies requires careful planning and clear communication with students, but the benefits are well worth it.

Flexible assessment allows learners to demonstrate their understanding of the subject matter in alternative ways. Instructors should consider selecting assignments for use in their courses, including tests with a variety of question types, oral presentations, group projects, assignments completed outside the classroom, such as academic posters and papers, or other forms of experiential learning. The key is to create a learning environment that is flexible and responsive to the needs of all students, regardless of their preferred assessment style. By providing students with a range of assessment options, educators can also encourage greater engagement and participation in the learning process, as students feel more invested in their own success (Lei et al., 2018). Furthermore, these types of assessments can help to identify gaps in knowledge or

understanding, enabling instructors to provide targeted feedback and support to help students improve their performance.

Implementing flexible assessment across different courses can require some degree of planning and coordination, but there are many examples of successful approaches that have been developed and tested in various academic settings. These include the use of rubrics or grading criteria that allow for flexibility in how assignments are evaluated, the use of peer review or self-assessment tools, and the integration of technology-based tools and resources to support a range of learning preferences.

Grade inflation concerns

With the primary purpose of assessment in higher education being a measure of learning, grade inflation can be detrimental to this process. If all the grades are inflated, then the determination of learning is no longer evident. Without a range of grades, there is no discrimination between students who deeply learned course content and those who completed the minimum requirements necessary for course completion (Kızıltaş, 2024). Institutionally, grade inflation can impact university credibility, as high grades become meaningless, if all students attain them (Caruth & Caruth, 2013). While some may argue that the increase in grades is due to student improvement, it is still unclear in the literature whether the increase in grades in higher education is due to more intelligent and academically successful students, or other, external factors (Jephcote et al., 2020). Given these findings, it is important to consider the potential inflation of grades when implementing an EG scheme, as there is the potential for students to manipulate the weights of their assessments, such that all the students score inflated grades, which would contribute to this ongoing grade inflation crisis within higher education.

Overall, flexible assessments offer a promising approach for improving student learning and engagement across a range of educational settings, and educators are increasingly recognizing the benefits of incorporating these approaches into their teaching practices. By understanding the rationale behind flexible assessments and the various types of options available, instructors can create more engaging and effective learning experiences for their students.

The Experiment

The experiment in this study was to determine if students could significantly improve their letter grade, if the instructor gave them some control over the grading scheme, while avoiding grade inflation. A mixed-methods approach was followed, as suggested by Johnson and Christensen (2024). A nonexperimental quantitative process was used to analyze the individual marks out of 20, the adjusted marks, and the ultimate letter grade. Anonymous qualitative feedback was then elicited from the students about their experience with the elective grading. There were five assessments (a mid-term exam, a final exam, and three other assignments, such as an oral presentation, an academic poster presentation, written assignments, or a small group project, depending on the expectations for the course) each valued at 20% of the final mark for the course, which was then converted to a letter grade.

Exams were a combination of multiple-choice, fill-in-the-blank, true/false, and short-answer questions to provide a range of questions typically found in undergraduate evaluation. Some courses used up to three, additional, three-to-five-page papers, or academic posters that were presented in class as a PowerPoint™ slide, usually as a preview of a final five-page paper to follow. Some courses had students give an oral presentation, generally accompanied by some sort of visual

media (PowerPoint™, Keynote™, Prezi™, etc.). Group projects were also used to present some portion of the course content in groups of two to three if it was appropriate for the course.

Method

A total of 1026 students, enrolled in various social-science courses in an undergraduate program, in years three and four, were given the option to alter the grading scheme provided in the syllabus. Students were allowed to alter their personal grading for each assignment by up to 10% in increments of 5%, providing that the overall total remained at 100%. For example, the value of the first assessment could be reduced to 10%, if the student increased one or more of the subsequent assessments to keep the total at 100%. Those who felt that they were not strong writers could reduce their grades on written assignments, and load the marks onto some assessment where they felt they could do better. Some stronger students voiced concerns that they felt that the group projects negatively impacted their grades, due to the poor performance of the other group members. EG gives those stronger students a way to mitigate the overall impact of a less-than-stellar group project. Ultimately, students were told that if there appeared to be no obvious reason to adjust their grades, they should simply use the existing rubric as planned. Less than 5% chose this option.

     Final letter grades were determined, based on the sum of all five marks given, which was then converted to a letter grade on the following basis:

     A+   >95
     A   85 - 94 range
     A-   80 - 84 range
     B+   75 - 79 range
     B   70 - 74 range
     C+   65 - 69 range
     C   60 - 64 range
     D   50 - 59 range
     F   <50

     Students were permitted to alter their grades by up to 10% in 5% increments so that an assignment worth the original 20% could be set as low as 10%, or as high as 30%. The grade election had to be completed within the first two weeks of the course before the first assessment was due.

     All assessments were graded out of 20. For each assessment, two columns were created in Excel™ for each of the five assessments. In the first column, the instructor inserted the grade out of 20. If a student had elected to increase or decrease the weight, a formula was placed in the cell in the second column to make that conversion to the elected grade weight.

     The formula took the score out of 20, and divided it by four to get a score out of five, and then it was multiplied by two, if the student had elected to have that assessment reduced to a score out of 10, or multiplied by three, if the student had elected to have that assessment scored out of 15. If there was no change requested, then the elected grade cell simply equaled the initial grade cell. If the student had elected to increase the value of the assessment, then the formula multiplied the score out of five by five, for an increase to 25%, or by six, for an increase to a maximum of 30%.

     For example, using Excel™, if the first assessment mark is inserted in column C, and row 2 (C2), the formula in C3 would be either =C2 or =C2/4*2 or 3, or 5, or 6, depending on the student's election to either reduce, or increase, the value of the assignment, and by how much. Once the election forms had been turned in, it was quite straightforward to create the formula once

for each specific grade election, and then copy it into the appropriate cell in the second column for each student with said grade election.

Creating all the formulas and inserting them into the appropriate cells in the Excel™ spreadsheet in advance allowed the instructor to avoid unconscious bias. By grading all assessments on the same rubric, and inserting the grades out of 20, the adjusted weight of the grade was not known by the assessor at the time of the assessment.

After the course, the instructor then solicited feedback from the students through the senate-mandated student evaluations of teaching. Students were asked to specifically address the EG process in their written feedback.

Results

Of the 1026 students who participated in the experiment, 189 actually increased their overall numerical grade out of 100, and 169 lowered their numerical grade. However, the vast majority only managed to impact their overall average by less than 1%. The range was + 4.2% to – 4.73%, with the average across all courses being 0.032%. Of the entire group of 1026 students, only two students managed to change their final letter grade. One result went up from a B to a B+ and one went down from a C to a D, at which point the instructor gave the student the grade they would have earned had they not made a poor election choice, which removed any negative impact of the EG process.

The comments in the student evaluations of teaching were overwhelmingly favourable with regard to the EG process. Many students indicated that they felt more engaged with the course due to the EG process. They also stated that it was their favourite part of the course and that they wished other instructors would use the same EG process.

Discussion

The results of this study indicate that the EG process did improve students' self-efficacy and achievement emotions, while avoiding grade inflation and its associated negative effects. This indicates that EG can be implemented to improve educational outcomes, while maintaining grades within the restrictions of the senate-mandated course comparison index.

Some students asked if it would be possible to have the freedom to make any change to the grading scheme that they liked, provided that they stayed within the senate requirements, which states that students receive a minimum of 20% of their grade before the voluntary withdrawal date, allowing them to make an educated decision about dropping the course. It was decided that all assignments had some value in assessment and that no student should be allowed to alter an assignment's value by more than half of its assigned value. It was also determined that adjusting grades by less than 5% would have such a small impact that it greatly outweighed the potentially enormous number of additional calculations necessary.

The process of evaluating and choosing assignment weights encourages students to think critically about their learning process and make informed decisions about their education. When students have a stake in determining how their work is evaluated, they are more likely to be invested in the assignments and put forth their best effort. However, it is important to note that offering too many choices can be overwhelming and counterproductive. Research suggests that providing three to five options may produce the most satisfaction and motivation. Therefore, instructors should carefully structure the choice-making process to maximize benefits, while avoiding choice overload (Beymer & Thomson, 2015; Reutskaja et al., 2020). Implementing this

EG approach would require clear guidelines and bounds set by the instructor to ensure that learning objectives are still met and that the overall course assessment remains fair and balanced. Additionally, instructors should provide guidance to help students make informed decisions about assignment weights, based on their individual goals and needs. By allowing students to elect the value of assignments within a structured framework, instructors can create a more engaging, personalized, and effective learning environment that prepares students for success in their academic and professional lives.

EG can achieve significant pedagogical aims, such as encouraging students to take responsibility for their own learning and fostering a deeper understanding of the material. It can also help to create a more equitable grading system, as students from diverse backgrounds may have different strengths and weaknesses that can be better accommodated through an EG system. However, there are also potential challenges associated with EG. For example, ensuring the security and integrity of the grading system can be a concern, particularly if grades are used for credit or other high-stakes purposes. It is also important to ensure that students have the skills and resources necessary to effectively engage with an EG system.

Implementing EG requires careful consideration of several factors, including system security and integrity, as well as the potential impact on student motivation and engagement. It is also important to ensure that EG is consistent with any senate-mandated guidelines for assessment and that it is transparent and accessible to all students.

Limitations

While the EG experiment was successful overall, there are some limitations worth considering for implementation going forward. Firstly, this study only included students in years three and four, who likely have a fairly strong sense of their academic strengths and weaknesses. The improved student engagement and self-efficacy may not have been as positive if an EG scheme was implemented with earlier-years' students, as they may not have a sense of their abilities, and the election process may have simply added more stress, without the benefit of more control over the educational outcomes. Secondly, this study only examined students in social-science courses, so the results, regarding the avoidance of grade inflation, may not be consistent in other domains.

Conclusion

There is an argument for allowing university students to elect the value of assignments. When students have a say in how their work is evaluated, they feel a greater sense of control over their education. This autonomy can boost motivation and engagement in coursework. Research has shown that providing students with choices leads to increases in autonomy and, in turn, motivation and learning (Okada, 2023).

Allowing university students to choose the weight of their assignments can also lead to increased engagement, motivation, and learning outcomes. This approach aligns with the principles of student-centred learning and provides several key benefits. First, students can tailor their assessment strategy to their strengths, weaknesses, and learning goals. This allows them to focus more on the areas where they need improvement or those that align with their career aspirations. Second, by allowing students to set their own goals and determine their own progress, they can take greater responsibility for their learning, and feel more engaged in the process. This can also promote deeper learning and retention of information, as students are more invested in

their own learning outcomes. Third, by allowing students to adjust the weight of assignments, they can better manage their workload across different courses and balance academic responsibilities with personal commitments. With the use of computer-based spreadsheet technology, EG can be implemented in a dynamic system that responds to the student's work, rather than relying solely on the instructor's evaluation.

However, it is important to differentiate between student empowerment for learning and EG for assessment. While EG can support student empowerment, it is ultimately a method of assessing achievement and should be implemented with care, to ensure fairness and accuracy in grading.

Overall, while the potential benefits of EG are significant, implementing this approach effectively requires careful consideration of a range of factors, including technical infrastructure, pedagogical goals, and students' needs and abilities. With the right approach, EG has the potential to be a powerful tool for promoting high-quality learning and assessment in higher education. However, it is important to implement EG with care and to ensure that it is consistent with established guidelines for assessment and grading. In conclusion, EG is a viable approach to assessment that has yet to be fully exploited within higher education. By empowering students to take greater ownership of their assessment, it can promote mental health and improve student engagement in the learning process.

Author Bio

David Telles-Langdon is an Associate Professor at the University of Winnipeg. One of his research interests is in competency-based education (CBE), a popular approach to professional preparation that refers to the systematic incorporation of practice-based evaluation and assessment. CBE has been applied extensively in teacher and coach evaluation and assessment and is now being applied to medical education as it relates to the continually evolving and changing field of minimally invasive surgery, which is becoming a dominant component of many surgical specialties today.

Neill Telles-Langdon is a graduate student at McGill University. His research interest lies in applying educational psychology principles into classrooms, to develop evidence-based pedagogy and practices for educators. Incorporating practices that support student well-being is central to these evidence-based methods, to ensure that students are not solely focused on academic outcomes, but also on their social, emotional, metacognitive, and motivational learning outcomes as well.

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