

Raising the stakes: Incorporating professional industry feedback improves senior student effort and engagement in the assessment

Introduction

Academic achievement is known to be influenced by several factors including those that are personal (e.g., conscientiousness, attitude) and those that are intellectual (e.g., previous knowledge, affinity for the subject matter) (Trautwein, 2006). In an upper-level course, students are completing more challenging assignments that relate to higher order learning outcomes, such as analyzing, evaluating, and creating (Bloom, 1956). Synthesizing components to create new material can be particularly difficult for many students, but an important element to practice in the classroom in preparation for future careers. Desire to submit satisfactory or stellar assignments is often primarily motivated by grades, but the instructor may consider incorporating other factors in the assessment to encourage greater levels of effort, particularly when asking students to complete assignments related to evaluation and creation of new work (Planchard et al., 2015). Having a relevant industry professional provide informal feedback increases the student's effort and enjoyment in the activity, as described below. This concept could be applied to any upper-level course with higher order learning assessments as it encourages further connections between the classroom and real-life and provides an additional motivator that extends beyond the grade.

Procedure

Students in an advanced companion animal management course were tasked with re-designing the animal enclosures at Petco (San Diego, CA) to improve the animal's well-being while also considering the challenges inherent to pet store enclosures (e.g., the need for sanitary conditions and space restrictions). Students were asked to synthesize previous knowledge on the animal species needs, explore new material in pursuit of improved practices for animal care, and encouraged to be creative within the confines of the practicality for the store. The end product was a slide presentation (e.g., PowerPoint; Microsoft Corp., Redmond, WA) 'pitch' to the instructor and industry professionals, explaining in detail why their design was preferred over elements in current Petco stores. Petco's national animal care department was contacted by the course instructor to inquire about their interest in contributing to the project for the course, with the instructor outlining the goals and emphasizing both the importance and boundaries of their role. Two individuals from Petco agreed to participate. The Petco national vice-president and director of animal care, education, and compliance virtually visited the classroom twice, once at the beginning of the assignment introduction to outline the store's current policies and to answer

any questions from the students and again later in the semester to listen to the pitches and give feedback to the students. The students were informed that Petco’s feedback would not influence their final grade on the assignment.

Assessment

This project was approved through the institutional review board (STUDY00010660). Students were asked to voluntarily complete a modified course valuing inventory (CVI) questionnaire regarding their perception of the assignment, which is designed to measure the value of an assessment and its effects on the learner as perceived by them (Nehari and Bender, 1978). Fifty-five students were enrolled in the course, with 23 choosing to complete the questionnaire (response = 42%) at the end of the semester. The CVI was presented and centered around the concept of incorporating industry feedback to the assessment. Most students enjoyed and found value in the assignment, as depicted by the data in Table 1.

Table 1. Student Responses to the modified course valuing inventory (CVI) questionnaire in an advanced companion animal management course.

CVI construct	Perception of value to the learner			% favorability
	Disagree	Neutral	Agree	
I consider this learning experience as time and effort well spent	1	4	18	78.3%
In this project I have taken more responsibility for my own learning than I usually do	1	3	19	82.6%
I would like to complete another project like this one	1	2	20	87%
I can now relate to the subject matter from a wider perspective	1	4	18	78.3%
(Reverse statement) My understanding of the subject matter has <i>not</i> increased much	18	4	1	78.3%
I worked harder in this project than I usually do	2	4	17	73.9%

Students also had the opportunity to openly comment on the project in the questionnaire. Several students responded with statements that expressed their engagement, such as “I liked how we got feedback on the Petco project. Being called out for your good work by the Petco people was really cool”, and “I really liked the Petco project, and I felt very engaged in the content that was covered.” One student was frustrated by Petco’s emphasis on practicality of space and sanitation over animal well-being and stated, “It seemed like they brushed us off in some aspects because they are a "large" business and some of our ideas seemed impractical”. A goal for the

described activity is that after completing this assignment the students are better equipped to appreciate the challenges associated with finding creative solutions to the problems that exist in complex real-world settings. While the latter student statement suggests displeasure with the assignment, it was expressed post-Petco feedback which likely tainted their perception of the experience.

This assessment with professional industry engagement has been conducted for three consecutive years, with the same industry professionals returning each year. They've reported being inspired by several of the ideas presented during the class over the years and have shared those ideas with Petco headquarters to begin to introduce change. When students hear the impact their creative works have on the professional reviewers, their level of investment and engagement in the assignment seems to increase. Further, the industry professionals have expressed their appreciation for the assignment and their role within, stating "I really enjoyed participating with your class last year and welcome the opportunity to participate again next year". Not only do the students seem to have motivational gains in their assignment when industry professionals provide feedback, but the professionals themselves see value from their perspective as well. Teaching partnerships with industry professionals are beneficial for all parties involved and may have a lasting impact on the student's appreciation for the material and the industry's connection with future employees or customers.

References

Bloom, B.S. 1956. *Taxonomy of Educational Objectives, Handbook: The Cognitive Domain*. David McKay, New York.

Nehari, M., Bender, H. 1978. Meaningfulness of a learning experience: A measure for educational outcomes in higher education. *Higher Education*, 7:1-11.

Planchard, M., Daniel, K., Maroo, J., Mishra, C., McLean, M. 2015. Homework, motivation, and academic achievement in a college genetics course. *Bioscience*41(2): 11-18.

Trautwein, U., Ludtke, O., Schnyder, I., Niggli, A. 2006. Predicting homework effort: Support for a Domain-Specific, multilevel homework model. *Journal of Educational Psychology* 98(2): 438–456.

Submitted by:

Jackie Jacobs

Michigan State University

East Lansing, MI