This paper presents the findings of a case study at the University of Wyoming involving an innovative approach to student motivation and active learning in a relatively large undergraduate agricultural economics course. In this case, the study in question examined the impact of adding two active learning exercises involving real-life applications of marketing to the otherwise traditional lecture course. It also looked at the impact of using monetary incentives as a means of motivating student participation and effort in these two semester-long active learning exercises.

Given the course’s learning objectives and the expectations of employers in the area, the active learning exercises employed in this study were intended to help students develop a range of real-life skills including market analysis and price-risk management. After two weeks of the class, during which the nature of the active learning exercise were discussed, forty-nine students were enrolled in the study. The first of the active learning exercises focused on hedging (marketing); students had to market three pens of cattle while considering an array of economic factors. Students were required to market at least one and potentially all three pens of cattle, and had to submit a written report on all marketing decisions that included reasoning and analysis behind their decisions, cost and profit assessments, and an explanation for the successes or failures they experienced. The second active learning exercise involved a weekly price expectation assessment for “slaughter-steer” prices. Both active learning exercises were incentivized through traditional means: each represented seventeen percent of participating students’ grades. In addition, monetary incentives were offered as a means of motivating student performance. Cash payments were awarded for each exercise, in multiple installments tied to work submission, on the basis of specified scoring systems.

After describing the nature of the two semester-long active learning exercises and the monetary incentive systems applied, the article examines the findings of the study on the basis of extensive statistical data pertaining to participation, grades, and evaluations. The evaluations in question, which were given at the end of the semester, included questions that specifically addressed both the active learning exercises and the monetary incentives. Overall, note the authors, students exhibited a generally positive attitude towards the active learning exercises, and expressed a preference to these types of learning experiences. Student responses also highlighted the utility of the active learning exercises in promoting real-life applications of marketing skills, which the authors interpreted as evidence that the exercises had succeeded in strengthening the students’ skills in the course’s learning outcomes. Further bolstering this conclusion was the analysis of grade distribution of students engaged in the study; the authors identified a close correlation between higher grades and the level of exercise elements completed. The few negative comments that were received tended to focus on the time required to participate in the active learning exercises and the total workload. Despite the seeming success of the
active learning exercises, however, the authors noted that the results were somewhat ambiguous in regards to the level of impact on student motivation of the monetary incentives.

Conclusions

Based on the grades achieved by students involved in the active learning exercises and the aforementioned evaluations, the authors gleaned several conclusions from the study. The first set pertained to the exercises themselves. In this regard, students not only exhibited positive attitudes about the exercises, but also indicated that they preferred active learning to more traditional approaches. Further, the exercises helped students strengthen skills with immediate real-life applications. As such, the use of active learning in this course context was successful. The second set of conclusions focused on the use of monetary incentives to motivate student participation and performance. While the authors acknowledged that they could not definitively state that the monetary incentives had motivated students “beyond a degree” typically achieved by self-motivated students, they could conclude that the “monetary rewards added to the learning associated with the price expectations and hedging exercises.” Given the ambiguity, however, of the impact of the monetary incentives on student motivations, the authors surmised that alternative methods of incentivization might work equally well, including possibly the use of fake money that could be redeemed for course points. Similarly, the study suggested the possible benefits of building in collaborative elements into the type of active learning exercises employed in the course.

Applications

This article offers two areas of consideration for potential application in courses at U.D.C. The first arena, the use of active learning, is considerably less provocative. From a rather focused perspective, the type of exercises employed in the case study here would seem like an easy and useful approach to a number of economics, business management, and marketing courses. This would seem particularly beneficial given the real-life applications focus of these exercises, and one could easily adapt them to any range of products or business endeavors. The authors’ suggestion that adding a collaborative element to the exercises also is worthy of consideration, as these types of activities would readily lend themselves to a team format (possibly with a competitive element). In a broader sense, the exercises employed in this study highlight the benefits derived from active learning in any higher educational context, and further substantiate students’ preference for such approaches. In contrast, the use of monetary incentives to further student motivation would seem to necessitate considerable discussion. First, of course, is the question of whether such motivational factors are appropriate. Second, an obvious question arises as to funding. In the case of this study, the monetary incentives were funded through an internal grant. Ultimately, however, the issue really comes down to the utilization of some sort of reward or prize as a means of motivating students. From this perspective, one might surmise that many teachers at U.D.C. have, at some point in time, used some sort of reward to motivate student participation or performance. One element of this study that bears consideration and application in such instances is the scoring system/performance parameters that the authors developed to govern the awarding of monetary payments. Rather than reward the student who did the best, the system employed in this case study was one that only rewarded performance or participation at fairly
demanding level. Thus, whether one was using real money, fake money, a prize, or some sort of extra credit, the approach adopted in this study was both geared towards efficiency and effectiveness (student success).

Citations of Interest


