Instructional Innovation Grant Proposal

Increasing Student Engagement and Providing Early and Timely Performance Feedback

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Grant Proposal for Summer 2012

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I have reviewed the proposal and I support the request for a course release/cost reimbursement for the project

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Head of Academic Unit                      Date
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Problem Statement
The DFW rate for the first fourteen sections (463 students) of a new required marketing course (Marketing Metrics: MK 4010) is 20.8%, compared with the same-period departmental average across all undergraduate marketing courses of 7.4%. The number of D grades in the metrics course has been about four times higher than the department average.

In Fall Semester 2009, a new required course, Marketing Metrics (MK 4010), was introduced to strengthen the analytical skills of marketing undergraduates. As a required course, approximately 300 students per year take the course. Given that the course was designed to address analytical deficiencies, it is not surprising that some students struggle. Our experience to date has identified several factors that contribute to students’ difficulty in the course. Students often get off to a slow start in the course, waiting until after the first exam to buckle down. Not all students actively participate in the team-based homework assignments. Students can be hesitant to ask questions in class. For some, of course, the actual math is a problem. A common theme is a lack of engagement on the part of some students: they know that they are not “getting” the concepts but don’t seem to know what to do about it. Students often appear passive about their learning in this course. This passivity or lack of engagement makes it challenging for the instructor to improve student learning.

Proposal Objectives
The ultimate goal is to improve student learning in MK 4010 which will lead to an improvement in student performance and a reduction in the DFW rate. Specific proposal objectives, designed to support this goal, are:

- To increase student engagement and involvement with course material.
- To provide students with timely and early feedback on course performance.
- To provide a non-threatening learning environment.
- To use technology to facilitate student learning.

Method
Our goal is to strengthen student performance by increasing student engagement and by providing early and timely performance feedback. The purpose of the instructional innovation grant is to develop teaching approaches to accomplish this goal. There is a significant opportunity to increase student engagement through the use of available technology. Through this grant we will explore and develop two teaching approaches designed to more fully engage students and to provide more

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1 The rationale for the development of the new course is described in Pilling, Rigdon and Brightman 2012 (Journal of Marketing Education).
2 The challenges encountered are described in Pilling, Nasser and Ellen (working paper).
immediate and individual performance feedback. These approaches are the development of online homework and the creation of course-specific movies.

As a context for the discussion of these approaches, we refer to Posner and Rudnitsky (1997), who emphasize five strategies for creating a favorable learning environment. These strategies are to encourage risk taking, to provide feedback so that students can monitor their progress, to assess prior student knowledge, to create an engaging learning environment and to communicate learning goals to students. We will refer to these concepts as support for the proposed innovation.

**Online Homework.** We propose to develop online homework assignments to be completed individually by students. Students will receive immediate feedback upon submitting their homework (including the right answer) and will be able to resubmit the homework as often as necessary. The instructor can provide general feedback that the student would receive after the question is graded. For example, the instructor could explain common errors or refer the student to another resource (such as a course movie). Based on meetings with Instructional Design and Training Services at GSU, the uLearn learning system software is a viable platform. We will also investigate other software packages. We will develop questions where a range will be input for each variable in the question, so that the answer changes each time the student attempts that question. For example, the student could be asked to calculate a breakeven sales quantity with a return on sales objective. For each attempt, the software would vary the level of fixed costs, the ROS objective, the selling price and the variable cost. This feature discourages cheating and permits the student to test him/herself with different numbers. We will be able to monitor the performance of each student, including the number of attempts, the score on each attempt and the answer to each question. We will also be able to identify areas where additional classroom emphasis would be helpful. We anticipate several learning benefits. Online homework is convenient and uses technology familiar to the student. Students will receive immediate feedback on homework performance. Students can attempt the homework as often as desired, in a low-risk setting. The homework can be used for exam preparation during the term as well as for preparation for the cumulative final exam. Finally the student can not rely on group members to complete the assignment.

**MP4 Movies.** We propose the development of a series of movies linked directly to course content, produced and narrated by the instructor. These movies would be posted on the university’s media server and links and descriptions would be provided to students within the learning management system software. Movies will cover specific in-class exercises and key course concepts. As an example, a movie would be created to cover the in-class exercise dealing with cannibalization. Because students will be able to access these movies remotely (even on smart phones), we believe that the movies will help to establish an engaging learning environment. They will permit students to review material as needed and represent a way to reinforce key course concepts. The movies will communicate key learning goals to the students. Also, movies will be a useful and efficient
way to review the “prior knowledge” that students are expected to bring to the course. For example, we would create a movie on calculating percent change, including how to solve for X1 or X2 given the percent change and how to “reverse” a percent change. Over time we would expect to create about 30 to 40 movies. We are exploring two software packages for the creation of these movies: Camtasia by TechSmith and Captivate by Adobe. We anticipate the use of a digital tablet to create some of the content and have briefly experimented with the WACOM and MOBI tablets.

The use of online homework and course-related movies should also improve teaching consistency across multiple course sections and instructors. These techniques may also be applicable to other required courses in the college, particularly those that are both analytical in nature and required for all BBA students.

**Evaluation**

We will monitor four specific areas:

- The DFW rate. We believe that increased student engagement and improved feedback will increase learning and performance, lowering the DFW rate.
- We will track student engagement through the learning management system software. For the online homework we can track the number of attempts, the length of each attempt and the timing during the semester. For the MP4 movies we can track the number of views, time per view and the total time spent, at the individual student level. Activity rates will help to capture the popularity and perceived usefulness of the movies and homework.
- We will survey students to gather their feedback concerning the homework and movies.
- We will conduct correlation analysis to examine the relationship between course performance, homework scores and time spent on movies and homework.

**Budget**

In support of the project, one course release is requested for Summer 2012.

**Works Cited**

