MANAGEMENT INFORMATION SYSTEM'S G.R.A.D. PROGRAM:
A PROGRESS REPORT

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EXECUTIVE SUMMARY

Purpose
This report provides you with an update on the Management Information System’s GRAD Program (Graduate Rapidly by Attending Daily). In this report you will read about the program’s progress, findings from the fall 2011 experiment to decrease class absenteeism, and recommendations for the program moving forward.

Background, Research, and Analysis
This report will summarize the steps taken by the Management Information Systems Department to create a culture that values class attendance. In addition, we will describe an experiment about compulsory attendance policies conducted in MIS 201 and MC 207 classes. We will present an analysis of this data and describe actions that faculty will take during spring 2012 semester.

Key Findings
- Use of compulsory attendance policies resulted in a dramatic reduction in class absenteeism. Students who were in a class with a compulsory attendance policy missed less than half the number of classes compared to students who were in a class with no compulsory attendance policy.

- Students who missed fewer classes earned much higher grades than students who missed more classes.

- Students in both MIS 201 and MC 207 – two very different courses – responded to compulsory attendance policies by missing fewer classes than students in classes without a compulsory attendance policy.

Spring 2012 Plan
Based on the key findings, the faculty in the Management Information Systems Department will undertake the following four-part plan for spring 2012: 1) Adopt the compulsory attendance policy in MC 207, 2) Collect additional data in MIS 201 to determine the impact of the same instructor using different policies, 3) Discuss new ways to advertise and promote the program, and 4) Conduct analysis of survey data.
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Background

During the spring 2011 semester, the Management Information Systems (MIS) Department wrote a proposal to reduce student absenteeism by creating a culture that places value on class attendance and conducting an experiment on the impact of compulsory attendance policies on class absenteeism. The proposal, named the GRAD Program (Graduate Rapidly by Attending Daily), comprised three stages: Examine, Evaluate, and Expand. The proposal was selected to receive from the Provost's office a $2,400 grant to implement the program.¹

Why Classroom Attendance?
The MIS Department decided that the best route to enhance student performance was to reduce student class absenteeism. The department arrived at this conclusion based on the confluence of several sources of empirical evidence linking class absenteeism and student academic performance. First, Dr. Snyder had been conducting research on class attendance and performance in his MC 207 sections (Snyder, Forbus, & Cistulli, in press). The correlation between class attendance and academic performance for students in MC 207 was an impressive .60 ($p < .001, N = 173$). Second, a recent meta-analysis found class attendance to be the best predictor of student grades (Credé, Roch, & Kieszczykna, 2010). Finally, findings from the Mississippi State University’s (MSU) Social Science Research Center’s (2010) Pathfinder Program, which emphasized class attendance to incoming freshmen, yielded promising results. Students who had a low number of class absences during their freshman year had a higher GPA and were more likely to return for their sophomore year. The university’s six-year graduation rate has also seen a substantial increase since the program’s inception.

The MIS Department found this evidence convincing and decided to develop a culture that values class attendance. After winning the $2,400 grant, the department set out to build that culture and begin an experiment on the impact of compulsory attendance policies on absenteeism. The sections that follow outline the department’s progress through the three-phase GRAD Program plan, report on fall 2011 attendance and performance data, and preview actions the faculty will take during the spring 2012 semester.

¹ Please note that the faculty members did not receive compensation from the grant funding.
The MIS GRAD Program

Phase One: Examine

Culture Building. During summer 2011, the department took the first steps toward building a culture that values class attendance. First, the department hired a graphic designer to develop a logo for the GRAD program (see Figure 1). Once a logo was developed, the department invested in a series of artifacts featuring the logo: mugs, magnets, and lapel pins. These artifacts were distributed to the faculty members. Each placed these items in prominent places in their offices. They also used these artifacts as rewards for student contests and as gifts for guest speakers. Each distribution of these artifacts represented an opportunity to talk about class attendance. In addition, magnets were distributed to students in MC 207 and MIS 201 classes as part of the experiment that will be described later in the report.

Figure 1. GRAD Program Logo

The graphic designer also designed a poster for the GRAD program (see Appendix A). The poster featured the statement “We have a name for people who go to class...Graduates.” These posters were placed on faculty office doors, the School of Business student advising office, the CACE office, and at a number of other locations across campus.

In addition to the measures described above, the faculty also made an effort to discuss class attendance during advising sessions. The faculty were provided with magnets that they could distribute to their advisees during their discussions about the importance of class attendance.

The attendance experiment. Because of the relationship between class attendance and performance, the faculty wanted to find ways to boost class attendance. To do so, they developed an experiment in sections of MIS 201 and MC 207 to determine the impact of
compulsory attendance policies on student absenteeism. These classes were selected because they are prerequisites for upper division classes in MIS. Although MIS 201 and MC 207 have students from a variety of majors, these classes represent the first opportunity for MIS faculty to have contact with those students who are (or will become) MIS majors. The faculty believed in the importance of early intervention.

For this experiment, four sections of MIS 201 and seven sections of MC 207 that were taught by full-time faculty were placed into one of two conditions based on the attendance policy in the syllabus. For classes in the control condition, faculty provided students with the following policy: “You are expected to be in class every day.” For classes in the experimental condition, faculty provided students with the following compulsory attendance policy: “Research clearly demonstrates that class attendance is important to your success as a student. You may miss up to three classes without penalty. If you miss more than three classes, each absence will result in a penalty of one-third of a letter grade (e.g., A to A-). The maximum penalty you can earn is two letter grades (e.g., A to C).”

Faculty members reviewed the attendance policies on the first day of class. In addition, faculty included a question in a quiz about the attendance policy. This helped to reinforce the manipulation and also helped to expose students who added the course to the policy. The faculty agreed to track class attendance beginning after the add/drop period. Students were contacted directly if they missed three classes and reminded about the importance of class attendance. If a student missed three classes early in the semester, the faculty members agreed to file an early academic warning report.

**Phase Two: Evaluate**

During winter 2011/12, the faculty compiled class attendance and performance data into a spreadsheet. SPSS software was used to evaluate the relationships among attendance policy, class attendance, class performance, course, and student demographics. The student demographics were collected via self-report surveys. Class performance was measured by the students’ final grades, which were scored on the traditional 0-100 grading scale.

**Student demographic data.** The faculty collected attendance and performance data for 293 students across four sections of MIS 201 and seven sections of MC 207. Of those students who completed the survey, 30 (14.9%) were freshmen, 45 (22.3%) were sophomores, 93 (46%) were juniors, and 34 (16.8%) were seniors. Student ages ranged from 18 to 50 years old ($M = 20.76, SD = 4.78$).

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2 Four remaining sections of MIS 201 were taught by full-time faculty who chose not to participate in the experiment.
Combined data. First, the MIS faculty analyzed the combined data for MC 207 and MIS 201. The results in Table 1 suggest that the impact of experimental condition on absenteeism is significant \( r = -.35, p < .001 \). Those students who were in the experimental condition missed significantly fewer classes. In addition, the correlation between student class absences and course grade is a robust -.45 \( (p < .001) \). Those students who missed fewer classes also performed better than their peers who missed class more regularly. It is also worth noting that upperclassmen had more absences than lowerclassmen, but the upperclassmen earned higher grades. In total, the average student who was in the control group missed 3.08 \( (SD = 3.07) \) classes while the average student in the experimental group missed 1.35 \( (SD = 2.01) \) classes. The difference in the number of absences between the two conditions is statistically significant \( (t [291] = 6.35, p < .001) \).

Table 1.
Correlations for Variables of Interest: All sections of MIS 201 and MC 207.

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<td>2. Grade</td>
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Note. Course is coded such that 1 = MIS 201 and 2 = MC 207. Condition is coded such that 1 = control group and 2 = experimental group. Class Rank is coded such that 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior.

*p < .05, two-tailed. **p < .01, two-tailed.

MIS 201 data. A closer inspection of the data for MIS 201 reveals a pattern similar to the combined data. We collected absenteeism and performance data for 99 students across four sections of MIS 201. Please note that three sections of MIS 201 were in the experimental condition and only one section was included in the control group. Hence, 28 students were in the control condition and 71 were in the experimental condition. Of the students who completed the survey, 29 (55.8%) were freshmen, 9 (17.3%) were sophomores, 11 (21.2%) were juniors, and 3 (5.8%) were seniors. The MIS sample contains a large number of freshmen because some of the sections were 3+1 courses with an FYE component.

As you can see in Table 2, the impact of experimental condition on class absences is statistically significant \( r = -.46, p < .001 \). Those students who were in the experimental condition missed significantly fewer classes. The relationship between student class absences and course grade was extremely large \( (r = .68, p < \)
.001), which suggests that students with few absences earned higher grades than students with many absences. Interestingly, upperclassmen were likely to miss more classes in MIS 201 than lowerclassmen, but the upperclassmen did not perform better than the lowerclassmen. In MIS 201, the average student who was in the control group missed 2.82 (SD = 1.56) classes while the average student in the experimental group missed .89 (SD = 1.77) classes. The difference in the number of absences between the two conditions is statistically significant (t [97] = 5.05, p < .001).

Table 2.
Correlations for Variables of Interest: MIS 201

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*Note. Condition is coded such that 1 = control group and 2 = experimental group.
Class Rank is coded such that 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior.
*p < .05, two-tailed. **p < .01, two-tailed.

MC 207 data. Finally, MC 207 faculty collected complete absenteeism and class performance data for 193 students across seven sections of the course. Three sections of MC 207 were included in the control condition (N = 77) and four sections comprised the experimental condition (N = 117). Of the students who completed the survey, 1 (7%) was a freshman, 36 (24%) were sophomores, 82 (54.7%) were juniors, and 31 (20.7%) were seniors. MC 207 requires ENG 110 as a prerequisite. This fact explains why only one freshman was included in the MC 207 sample.

Table 3 paints the same picture as Tables 1 and 2. Students in the experimental condition missed fewer classes than students in the control condition (r = -.30, p < .001). The relationship between student class absences and course grade was statistically significant (r = -.41, p < .001), which suggests that students with few absences earned higher grades than students with many absences. Interestingly, upperclassmen did not miss more classes than their lowerclassmen counterparts. There was also no difference in grades between upper- and lowerclassmen. In MC 207, the average student who was in the control group missed 3.55 (SD = 3.44) classes while the average student in the experimental group missed 1.81 (SD = 2.08) classes. The difference in the number of absences between the two conditions is statistically significant (t [192] = 4.37, p < .001).
Table 3.
Correlations for Variables of Interest: MC 207

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Note. Course is coded such that 1 = MIS 201 and 2 = MC 207. Condition is coded such that 1 = control group and 2 = experimental group. Class Rank is coded such that 1 = Freshman, 2 = Sophomore, 3 = Junior, 4 = Senior.

*p < .05, two-tailed. **p < .01, two-tailed.

Phase Three: Expand
We conclude that the GRAD program was successful in demonstrating that compulsory attendance policies can reduce student absenteeism. This news is encouraging given the relationship between absenteeism and grades. The extant literature speaks to the relationship between absenteeism and grades, but our data also highlights the importance of class attendance to grades. As a result of these promising findings, the Management Information Systems department has decided to undertake the following plan for spring 2012.

Adopt the compulsory attendance policy in MC 207. Because two professors took part in the experiment, and they taught a total of seven sections, the MC 207 faculty have enough data to conclude that the compulsory attendance policy results in fewer class absences. Therefore, these MC 207 professors have agreed to adopt the compulsory attendance policy for all sections of the course in spring 2012.

Collect additional data in MIS 201 to determine the impact of the same instructor using different policies. Three professors took part in the MIS 201 experiment. Only one of those three professors taught multiple sections of the course. As a result, the MIS 201 professors would like to collect more data during spring 2012 to find out if the relationship between compulsory attendance policy and student absenteeism holds up for individual professors. In other words, will the same professor using a different policy for each of two sections of the class see that his or her students in the experimental condition miss fewer classes?

Discuss new ways to advertise and promote the program. The faculty will continue to discuss new ways to advertise and promote the program. We are interested in continuing our efforts to build a culture that places high value on student absenteeism. Because some faculty may view a department policy requiring compulsory attendance
policies as a violation of their academic freedom, it is important for the department to explore other venues for encouraging class attendance.

Conduct analysis of survey data. Students completed a voluntary survey about their perceptions of the MIS 201 and MC 207 professors in addition to their levels of cognitive and affective learning in these courses. Although the nature of some of this data is sensitive (e.g., student perceptions of faculty verbal aggressiveness), the faculty believe that these data may be useful for internal purposes moving forward.
References


We have a name for people who go to class...graduates