

Raising the Intellectual Climate in MIS Courses

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Abstract

Many universities are attempting to address problems related to academic standards and the appropriate level of rigor for courses. Related to a university-wide effort to raise the intellectual climate in the classroom, a study was performed to identify the most significant factors for doing so in management information systems (MIS) courses. MIS and other computer-related areas, and technical areas in general, have unique challenges relating to currency of content and relevancy. And these courses have historically been evaluated by students as being “not well taught” or “too boring.” This study attempts to identify specific problems and suggests solutions to improve the intellectual climate in MIS courses.

Keywords: Intellectual Climate, MIS Courses, Content, Faculty

1. RESEARCH APPROACH

In an effort to raise the intellectual climate across the university an initiative was undertaken to gain feedback from faculty and students regarding their perceptions of how to achieve this goal. As part of this initiative, a study was undertaken to elicit the perceptions of MIS students toward the critical factors affecting the intellectual climate in MIS courses. Teaching technology is recognized as having similar as well as unique requirements when compared with other subject. A series of focus groups was conducted using a modified nominal group technique to generate a set of factors that are believed to impact the intellectual climate in MIS courses. A nominal group process is a technique used to elicit ideas, perceptions, or opinions from a group of participants in a structured meeting format. This technique has been used in prior accounting and information systems research to determine quality factors (Havelka 2001a, 2001b; Havelka, Sutton, and Arnold 1998). These sessions were conducted in three sections of a sophomore level course that is composed primarily of MIS majors and minors. Each session included 10-15 student participants. The course instructor facilitated the sessions with a student acting as the scribe. These sessions resulted in a set of thirteen factors that the

students felt were critical to improving the intellectual climate in the MIS curriculum.

The fact that the instructor facilitated the sessions may have an inhibiting affect on the factors generated and this is clearly a weakness of the study. However, the sessions were not related in any manner to course work or evaluation. The students’ participation was entirely voluntary, i.e. the students were allowed to leave and several did, and their responses were maintained anonymously after the initial elicitation process.

2. RESULTS

The three sessions resulted in a set of twelve factors that the student participants felt were critical to improving the intellectual climate in MIS courses. Each one is defined and discussed below.

Qualified Faculty

The students were particularly concerned about the credentials of the instructors in their MIS courses. While this may be a localized problem, i.e. only present here, anyone familiar with the current market for terminally qualified MIS faculty will agree that finding and retaining faculty with both strong technical skills and knowledge and a demeanor for

teaching is difficult. The proper screening of potential and current faculty members bears an influence on the academic environment on the campus. If faculty members responsible for instilling knowledge in the students in their classrooms fail to hold adequate credentials for such a purpose, then it can be expected that the academic climate will fail to achieve specific goals related to academic standards and rigor.

Relevancy of Course Content

Many students identified the presence of so-called “busy work” in the classroom as a direct cause of academic apathy among the students. Without a sense of relevance and ultimately accomplishment in what they are learning, the students indicated that their knowledge of the subject area and their respect for the learning process would diminish. The suggested solution was not surprising, given assignments with greater contextual implications (i.e. “real world” application of classroom concepts), students may feel more motivated and, at the same time, more rewarded for their efforts. It is also worth noting that this factor may be particularly acute in schools of business and engineering.

Infusing the Class with Real-world Experiences

Along with class work that remains salient to the current business environment, occasional insight from those actually immersed in IT, networking, project management, etc. might prove helpful in giving the students the edge needed to succeed in a highly competitive marketplace. Most academically qualified professors do not possess all of the knowledge needed to properly prepare students for the realities that follow the collegiate experience.

Currency of Course Material and Equipment

If matriculates are expected to ascertain knowledge and skills pertinent to the positions available in the current marketplace, then it follows that the equipment and texts must accurately reflect the most up-to-date advancements in the world of business. The MIS and computer science curriculums may be like no others.

The rate of change in technology is so fast that the traditional 15-week semester (or even the 10-week quarter) may be too long to allow for changing content to be constantly current. And although we may try to emphasize the more permanent, and arguably more valuable, critical thinking and problem-solving skills, we are not immune from the forces of the marketplace. Therefore, we are constantly revising the content of technical courses and are always behind.

Inter-Course Coordination

Departments should also strive to maintain better organization of their courses. This improvement

would have a twofold effect on heightening the intellectual climate in their classrooms. It would allow for more consistency between sections, a problem that has long plagued students when facing a departmental exam at the end of the semester. Furthermore, it would allow new courses to be implemented more effectively. Only the establishment of clear goals for a course can allow it to get off to a successful start and, more importantly, benefit its students with increased knowledge of the subject matter.

Interdisciplinary Communication

Another hindrance to the learning environment shows up when one looks at the communication (or lack thereof) between the departments here on campus. Both students and faculty alike are inconvenienced when they find themselves in a situation where test times overlap. A steady flow of interdepartmental information might help to remedy this problem, allowing professors to work around each others’ schedules for their and the students’ benefit. At first blush, this may only seem to be a case of the student participants “whining” about the inevitable. Upon closer inspection, an argument can be made that the purpose of exams, tests, or quizzes should be either to assess learning or to further it. Neither of which are really achieved when a student has multiple projects or exams scheduled at the same time. On the other hand, one could argue that this is one instance where the “real world” appears on campus. Very few professions or careers allow for an individual to re-schedule a project or presentation entirely and very nearly all require the ability to “multitask.”

Along with the previously stated complaint regarding the conflicting of test times across courses comes the gripe concerning “crunch times”. Whether unaware or uncaring, teachers have a tendency to follow patterns in the assigning of class work. As a result, students find themselves immersed in an overwhelming amount of work around predictable points in the semester (before holidays, especially). Teachers might consider varying the timelines on major projects, allowing for more even spacing of overall workload.

Instructor-Student Communication

The student participants indicated that teachers would normally go out of their way to make themselves available to a student for assistance outside the classroom. However, given the nature of our courses more effort could be focused on making student-teacher communication more flexible by using the technology that we teach. Students felt that communication between students and faculty could be vastly improved by an increased use of email, instant messaging, and the phone.

Class Size

Studies and common sense suggest that reducing the number of students per section will increase the

quality of the instruction received. By allowing the teacher more time to focus on individual progress and achievement, better learning can be achieved. Of course this is also related to the resource problem and the availability of courses.

Funding

While it is obvious that the number of students and other uncontrolled variables influence the budgetary allowances of departments, when weighed proportionately to others the amount of funds should be fair and consistent. The benevolence of a highly successful alumnus should not be limited to a specific department, for example. Scholarships to attract highly qualified applicants that may go elsewhere or major in other disciplines.

Student Advising

While it is hard to reach a consensus among even a small number of persons, the vast majority of the student body will concur on the poor state of student advising. In most cases, advisors know little more or sometimes even less than the student they are meant to guide. Certainly this has a significant impact on the ability of students to schedule wisely and thus complete their studies within the time allotted by their patience, and more importantly, their budgets.

Internships and Co-ops

While the world may be full of internship possibilities for students, the Faculty does little to inform their classes of these opportunities. With the career planning and placement services being one of the most confusing and frustrating methods of procuring meaningful summer work for future grads, the assistance of a teacher with knowledge of and connections in a particular field may prove the catalyst needed to boost the number of students who gain real-world work experience so greatly valued by potential employers.

Lack of Available Courses

The participants indicated that a leading cause of frustration and recurring complaints among the student body concerns the unavailability of required courses. Some required MIS courses were offered in limited numbers despite great demand, resulting in students being thrown off their academic track. This frequently resulted in situations requiring summer classes and/or extra semesters for a student majoring in MIS. Again, this factor may be entirely a localized phenomenon; however, it is directly related to the lack of adequate resources and the increasing demand for MIS and IT courses and programs. And while this is primarily an administrative issue, the student participants in the study indicated that this significantly affects the overall academic environment.

3. CONCLUSION

Many institutions of higher education are initiating efforts to enrich and improve the intellectual experience of undergraduates. MIS departments have many of the same challenges as other disciplines and may have several unique issues to address related to these efforts. Knowing what issues the students perceive as critical to these efforts may allow administrators and faculty the ability to improve the intellectual climate and increase the level of service quality provided to the students. This paper details an initial effort at identifying and discussing some of the critical success factors for raising the intellectual climate in MIS courses. The 12 factors identified were:

1. Qualified faculty.
2. Relevancy of course content.
3. Infusing the class with real-world experiences.
4. Currency of the course material and equipment.
5. Inter-course coordination.
6. Inter-disciplinary communication.
7. Instructor-student communication.
8. Class size.
9. Funding.
10. Student Advising.
11. Internship and Co-ops.
12. Lack of available courses.

This set of factors could be used as part of an MIS department's self-assessment plan and could be the basis of benchmarking criteria for continuous improvement efforts.

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