An Experiment in Learning: A Case Study

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OBJECTIVES

1. To find pedagogical approaches to enhance learning in a required course for first-year undergraduates majoring in business

2. To provide a support system as well as learning environment for these students in order to make the subject matter more interesting, meaningful and motivating

3. To assess the role of technology in teaching a large class

BACKGROUND OF THE COURSE

1. As mentioned, this is a required three-unit course (FINA 111) in managerial finance for all business majors. This is also the first course for those students who choose Finance as their specializations.

2. The course serves both a general purpose for all business students, and also a special purpose for finance majors. Almost all undergraduate programs in business, both in Hong Kong as well as abroad, have similar requirements.

3. The course has prerequisites in basic accounting, statistics and economics. The students complete these prerequisites in the fall semester before taking Fina 111 during the spring semester.

4. In prior years the course was offered in several sections (usually 8), basically as a lecture course. The students’ reactions to this format can at best be characterized as mixed. Usually no separate tutorials were required. Several teaching assistants were assigned to the course, primarily engaged in marking examinations and quizzes with occasional availability to answer questions for students outside the class.
ELEMENTS OF EXPERIMENT

1. The entire first-year class (about 730 students) was divided into three sections of roughly 245 students each. These sections met twice a week for 75 minutes each, primarily in a lecture format.

2. Each student was required to enroll in a tutorial section consisting of 30 students. The attendance in tutorials was mandatory and each session lasted 50 minutes per week. The entire class of 730 students was divided into 24 tutorial sections. We encouraged attendance by assigning 10% of the grades to attendance and homework problems, which could only be submitted during tutorial sessions.

3. Three demonstrators primarily hired for this purpose conducted the tutorial sessions. These sessions were mostly devoted to discussing assigned homework problems, answering questions on lectures, providing as much individual help as possible and dealing with other administrative aspects of the course.

4. Each tutor was also required to attend one lecture section to ensure familiarity with what was happening in class.

5. Our goal was to ensure that each student was aware that he/she could obtain any necessary and appropriate course-related help by using any one of the following:
   
   a. Raise questions in lectures or tutorials or meet afterwards
   b. Send an e-mail either to the instructor or to tutors
   c. Contact either instructor or tutors during their office hours (more than 15 hours per week) either in person or by telephone or fax
   d. Post their questions and our answers on the course web page
   e. Make appointments either with instructor or tutors to get help if any of the foregoing were inconvenient.

6. We believed that while we were primarily responsible for creating a friendly and professional environment for learning and access, the students were equally responsible for taking advantage of available opportunities for meeting, talking and getting their questions answered. We strongly believed in the principle that “where there is a will, there is a way.” We did not want to spoon-feed the students, but we also wanted to make sure that students knew that we were interested, cared, committed and concerned about their learning at an individual level. In working towards this goal, our aim was to answer every question within 24 hours.

7. During tutorials the tutors were encouraged and were successful in getting to know most of the students on an individual basis.

8. Even though the student was supposed to attend the tutorial and the lecture in his/her assigned section, we allowed switching if necessary. It was more important that they attend the session rather than miss it due to time conflict or other personal reasons. The classes were held Mondays and Wednesdays, whereas the
tutorials met on Tuesdays and Thursdays. Each tutor had sessions on both days making it convenient for students to make the switch with the same tutor.

9. I met regularly with the tutors each Friday, usually for more than an hour, to assess our experience of the previous week as well as to plan for the following week. The tutors provided me with very valuable feedback on my lectures and on items that needed more elaboration, as well as on other administrative and content matters. We also decided the plan for the following week’s tutorials. It was always a very friendly, open, and collaborative meeting. Thus we made sure that what we did in tutorials was influenced by and incorporated students’ concerns and questions.

ASSESSMENT AND GRADING

1. The grade in class was derived based on four inputs—Web based quizzes (10%), assigned homework and attendance at tutorials and homework (10%), mid-term examination (40%), and final examination (40%).

2. We had some technical problems with web-based quizzes, which made the outcome of the quizzes less reliable. We, therefore, used the quizzes only as practice quizzes but still continued with the assigned weight.

3. Both mid-term and final examinations consisted of multiple choice (to test concepts, ideas and definitions, etc.- 40% of examination) as well as numerical problems (to test analytical techniques- 60% of examination).

4. We all participated in preparing the examinations to make them fair, clear, relevant and to ensure that students were able to finish them in the assigned time.

5. While it would have been more efficient to have the entire examination in a multiple-choice format, we wanted to retain the numerical problems both due to pedagogical as well as practical reasons.

6. Each numerical problem was marked twice by two different persons to ensure consistency and fairness as well as to minimize complaints after the exams were returned.

STUDENTS’ REACTION

It goes without saying that the success of this experiment depended on how the students felt. Did they benefit? Did they find a better environment for learning? In spite of the large class size, did they find that tutorials were not only helpful in making learning possible, but also that they were treated like individuals with the respect, dignity, concern and professionalism that they deserve?
While I am unable to answer all these questions, I will make the following points to provide some insights.

1. We circulated a very simple one-page questionnaire towards the end of semester in each tutorial section. More than 80% of students responded.

2. On a scale of 1 through 5 (5 being the best), we asked students to provide an overall performance rating for their tutors. Each tutor received a score of more than 4.

3. We also asked them about the benefits of this format (lectures combined with tutorials). Again, their responses were very positive. We posed other questions on frequency of contact, responsiveness of tutors and similar other topics. On each of these points, the students reacted very satisfactorily.

4. The University course evaluation, which was conducted separately showed a similar pattern. Overall evaluations for the course and instructor were higher by almost 10 points compared to the previous three years.

THE FUTURE

1. Based on our experiences this year, the department has agreed to offer the course in a similar format next year in the spring semester.

2. We intend to make greater use of Web-based technology in providing instruction and answering students’ questions, as well as in assessment etc.

3. We are also contemplating other changes, primarily in the area of assessment, provided we have the technical support available. For example, I have been discussing with CELT the possibility of computer-based testing—similar to SAT, GMAT, and other standardized tests.

4. We also intend to use several (between 15-20) third year finance majors to help the students as mentors. Our objective is to for another layer of help to enhance learning by empowering students and making them responsible for their own success in the course.

5. However, in the final analysis, while the most critical ingredient continues to be student reaction, I also believe that quality of tutors is equally crucial. It is very important that tutors remain committed to the goal of providing an enhanced and (as much as possible) individualized learning experience for students.