Chapter 8.5
How Distance Programs Will Affect Students, Courses, Faculty, and Institutional Futures[1]

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ABSTRACT

Designed properly, distance education classes can be at least as effective and, in some ways, even more effective than face-to-face courses. The tools and technologies used for distance education courses facilitate learning opportunities not possible in the face-to-face classroom. Distance programs are accelerating changes that are challenging students, faculty, and the university, itself. Currently, most faculty are rewarded for the quality of instruction, as well as their external funding and their research. Often, university administrators focus more attention on the efficiency of teaching than on its effectiveness. In the future, as the quality of distance learning increases, the primary factor for success will be the faculty's commitment to excellence in teaching. Many institutions will be forced to reevaluate the quality of teaching as the institution becomes more visible to the public, to legislators who support higher education, and to prospective students.

INTRODUCTION

People usually assume that students in distance education programs are at a disadvantage. On the contrary, it is probably not the distance student who is disadvantaged, but rather many face-to-face students. Learning is enhanced by the physical and social technologies typically used in distance education. Students in distance programs have access to tools that allow them to repeat lectures and interact with their fellow students and faculty. Contrast these students with a student sitting in a 500 student lecture. Which student is most at a distance?

In the early 1980s, a research group introduced a computer-mediated system to a regular face-to-face class. The group felt that there was enormous potential for this technology to enhance learning. The system was introduced to students in a number of Computer Science and Information System courses. Due to the amount of material covered in lectures, there was not much time for dialogue and only a few students participated when there was a class discussion. The instructors introduced asynchronous group communication technologies to communicate discussion questions and assigned grade point credits for student participation. One hundred percent of the students participated in these discussions outside of regular classroom hours. The extent and depth of the discussions changed the nature of the classes. Most importantly, student contributions were comprehensive, with more well-thought-out comments, because students had the time to reflect on the ongoing discussion before participating. Also very significant was that students, for whom English was a second language, became equal participants. They could reread the online discussion as many times as needed before replying. The computer-based activity monitoring and transcripts, electronic recordings of the discussions, showed that foreign students spent two to three times more in a reading mode and reread many discussions, far more than the American students.

This ability to monitor activities and review the electronic transcripts gives the instructor insights into how students are learning. By reviewing the transcripts of the online discussions, it becomes obvious what and how students are learning. For courses with high pragmatic content, such as upper level and graduate courses in topics like the design and management of computer applications, students are required to utilize problem-solving approaches to evaluate the trade-offs between conflicting objectives. In a traditional classroom environment, especially in large classes, it is very difficult to detect whether students are accurately incorporating the problem-solving mental models that the instructor is attempting to convey. Reviewing the transcripts of class discussions can provide insight into the approaches students are taking to master the material.

Unfortunately, in the early 1980s no one wanted to hear about a revolution in normal classroom teaching or was willing to expend the effort to dramatically improve classroom education. It was only those interested in distance education who were interested in learning about the educational potential of the technology. As a result, in the mid 1980s the researchers at New Jersey's Institute of Technology (NJIT) obtained research funding to investigate distance education applications of Computer Mediated Communications (CMC). Since NJIT, at the time, had no distance program they created distance sections of regular courses that were used with regular on-campus students taking most other courses face-to-face.

This effort (Hiltz, 1994) utilized quasi-experimental studies that compared a population of students (only familiar with face-to-face classroom education) to a population of students taking the same courses in pure face-to-face sections with pure distance sections using only CMC technology. The students in the matched sections had the same material, the same assignments, the same exams and the same instructor. They found no significant difference in the amount of learning or the rate of student satisfaction. This finding

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