Chapter VI

Improving Teaching Effectiveness Using Distance Education Tools

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Abstract

Distance education is now an integral part of offering courses in many institutions. With increasing access to the Internet, the importance of distance education will only grow. But, to date, the specific benefits that distance education brings to student learning objectives remain unclear. We first propose a framework that links student performance and satisfaction to the learning environment and course delivery. Next, we empirically evaluate our framework using data from a business statistics course that we offer in the traditional classroom setting and as a distance education course. Our results show that while a well-designed distance education course can lead to a high level of student satisfaction, classroom-based students achieve even higher satisfaction if they are also given access to online learning material. This indicates that material for an effective distance education course can also be used to supplement in-class teaching to increase satisfaction with student learning objectives.
Distance education has created a substantial impact on students, faculty, and institutions. Distance education classes are now routinely available to many students. In a survey conducted by the National Center for Education Statistics, the percentage of two- and four-year degree-granting institutions offering distance education classes increased by 11% from 1995 to 1997. The number of courses being offered nearly doubled in the same time period (Sikora & Carrol, 2002). The effect of distance education has also been significant on faculty. In a study conducted by Lewis, Snow, Farris, Levin, and Greene (1999), nearly 6% of all faculty in Title IV degree-granting institutions were involved in distance education classes, and about 9% offered courses using non-face-to-face mediums (Lewis et al., 1999). Studies also indicate that distance education faculty bears a higher burden of teaching. Bradburn and Zimbler (2002) found that on average, faculty teaching distance education classes had more sections and more course preparations than faculty who only taught face-to-face.

Institutions are also at crossroads. While the trend to offer more distance education classes is clear, with increasing competition for limited resources, many institutions face questions concerning lack of fit with mission, program development costs, and technological infrastructure, among others (Bradburn & Zimbler, 2002). These questions need to be answered if distance education is to fulfill its potential.

Cost aside, it is clear that students, faculty, and institutions benefit from distance education. But, currently, the benefits of distance education are neither clearly defined, nor can be easily measured. A brief tally from 1992 to 2002 indicates that there were 22 papers finding significant positive effects and 26 not finding significant benefits in using distance education (Russel, 2001; NSD, n.d.). While these studies varied in subject and in the choice of performance metrics, it is still too early to conclude what specific benefits students and institutions can reap from distance education. Importantly, the role distance education plays in the overall attainment of student learning objectives remains unanswered.

Research efforts have continuously been extended to explain the effectiveness of distance education, and typically these comparisons are made with traditional classroom education. But, to clearly evaluate the effects of distance education, factors like student learning styles, delivery of content, course characteristics, and technology also need to be considered. Then, with increasing research, a clearer picture will emerge on factors that lead to a successful implementation of distance education. This study hopes to add to this body of research. We first propose a framework that links student performance and satisfaction with the learning environment and course delivery. Then, we empirically examine our framework and provide more evidence to the growing body of research on distance education effectiveness. We also examine the effect of using distance learning tools as part of traditional
An Exploratory Study of Blended Learning Activities in Two Classes
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