

# Chapter 7

## Promoting Active Learning through a Flipped Course Design

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### ABSTRACT

*There are numerous ways in which faculty can deliver information in a blended course; however, the question remains as to which information is best suited to online delivery versus face-to-face. The focus of this chapter is on the flipped classroom, including a study in which a psychology statistics class was flipped and students' statistical knowledge, attitudes toward statistics, and intercultural sensitivity were assessed. In order to understand the theoretical underpinnings of the classroom, the authors examine the flipped structure through Blended Learning Theory, Problem-or-Project-Based Learning Theory, and Cognitive Taxonomy Theory. Advantages and disadvantages to transitioning to such a format as well as applications to other courses and some of the best practices in a flipped course are discussed.*

### INTRODUCTION

Colleges and universities across the country are utilizing distance learning, including online and blended course formats. This trend is not recent, in 2000-2001, 90% of 2-year and 89% of 4-year public institutions offered distance education options (Jackson & Helms, 2008). In 2005, 3.2

million students were enrolled in online courses (Callaway, 2012). Allen and Seaman (2011) conducted a large-scale survey of 4,523 active, degree-granting institutions of higher education in the USA. In conjunction with the Babson Research Group and the College Board, their analysis represents 80% of higher education enrollments. Results of the survey indicate that online enrol-

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ment, as a percent of total enrolment has increased from 9.6 in the fall of 2002 to 31.3 in the fall of 2012. This equates to 1.6 million students taking an online course increasing to 6.1 million. The growth rate of 18.3% is larger than that of higher education overall, which has only grown at an annual rate of just over 2% during the same time period (Allen & Seaman, 2011).

After massive growth in online enrollment over the past 8 years, 2010 marked the first sign of slowing. Projections suggest this rate will stay steady over the coming years for all institutions including public, private, non-profit, and private for profit (Allen & Seaman, 2011). Distance learning courses allow institutions to expand current student markets, increase brand recognition and the alumni base, while saving campus energy and operational cost. These courses have allowed institutions to battle cuts in state funding while recruiting students beyond their local or regional markets, thus enabling them to extend their brand nationally and even globally (Allen & Seaman, 2011; Betts, Hartman, & Oxholm, 2009). In addition, faculty training for online education can be an indicator for institutional support. Only 6% of institutions report no training for online teaching, a number that has significantly decreased over the past decade. The most common training reported includes institutionally run courses (72%) and informal mentoring (58%). Such training is provided at a higher rate than courses intended for face-to-face teaching (34%) (Allen & Seaman, 2011).

Distance learning courses not only benefit schools but they also match the majority of students' life-long experiences with the Internet. Current traditional age college students are described as "digital natives" who have always had laptop computers, cell phones, and text messages (Davis, Deil-Amen, Rios-Aguilar, & Canche, 2012). Distance learning courses allow students to maintain some autonomy over how and when they complete course requirements. Such flexibility has been found to be important for student satisfaction (Allen & Seaman, 2011; Callaway, 2012; Muirhead, 2002; Ocak, 2012).

Faculty perceptions of distance learning are also important. When polled, 44% of Chief Academic Officers of institutions that offer online education say their faculty accepts the value and legitimacy of online education. This number has not changed much in the past 8 years (although it varies widely by school) (Allen & Seaman, 2011). In a recent study, 73 faculty members of various levels were surveyed on their perceptions of blended teaching (on-line and face-to-face), their satisfaction with such courses, roles, and perceptions of student learning (Ocak, 2012). The majority of faculty (88%) reported being generally satisfied with teaching blended learning classes. In addition, 92.1% reported their students learn a lot in the blended course. Ninety-six percent felt that blended courses were appropriate learning environments for college courses and that they were eager to teach another blended course (69.6%). However, it should be noted that 95% of respondents believed that blended learning requires more time and effort than face-to-face and full online course formats. They acknowledge that it requires creativity in teaching and requires educators to reflect in meaningful ways on their pedagogy. Few disadvantages were reported, such as problems with students' ability to use of technology and lack of institutional support. Overall advantages of blended learning outweighed these issues (Ocak, 2012).

The high numbers of online and blended course enrollment indicate that distance learning is a viable and desired option for students. Furthermore, the majority of institutions and faculty are in support of such course formats, especially in regard to blended learning. It is important to better understand the learning environments and student outcomes of courses utilizing Internet technology. To begin, a clear understating of what distance education courses are is of focus, with an emphasis on blended learning.

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