Chapter 1

Introduction

In the California Community Colleges (CCC)—the largest community college

system in the nation, with 72 districts, 109 colleges and over 2.5 million students—the

number of students taking courses via distance education has been increasing

significantly over the past decade. Distance education, "instruction in which the

instructor and student are separated by distance and interact through the assistance of

communication technology" (Mora, 2004), is increasingly becoming a viable mode of

instruction for significant numbers of students and faculty. From 1995-96 to 2005-06,

the percentage of students enrolled in one or more distance education classes rose

from 2.52% to 11.81% of the total number of students attending California Community

Colleges (Nather, 2007). Over this same time period, the number of distance education

course sessions increased by 808%, and the predominant delivery mode changed from

81.1% televised courses (e.g., instructional television, video cassettes, etc.) to 78.1%

Internet-based (Nather, 2007). Over the past decade, California Community Colleges

have experienced a significant increase in the number of courses that are provided via

distance education, impacting hundreds of thousands of students each year.

A similar trend in distance education has been occurring on a national scale. The

number of higher education students taking online courses[1] has increased dramatically

in the United States over the past decade. According to the Sloan Consortium Report

(Allen & Seaman, 2006), approximately 3.2 million higher education students

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[1] By Allen and Seaman's definition, an online course is one in which "at least 80% of the course content is delivered online" (p. 4).

nationwide took at least one online course during fall term 2005, nearly doubling the number of online students since fall 2002. Almost half of these online students (1,498,246) attended 2-year colleges (Allen & Seaman, 2006)—comprising almost one quarter of the total number of students (6,488,055) who attended 2-year colleges during the fall 2005 term ("Almanac Issue 2007-08," 2007). By comparison, in the California Community Colleges, 301,073 out of 2,549,421 students took at least one online course during the 2005-06 school year (Nather, 2007). As summarized Table 1, a significant number of undergraduate students are enrolled in online courses—this is a national phenomenon that is mirrored in the California Community Colleges.

Table 1

Percentage of Students Enrolled in One or More Online Courses

Online Enrollment	One or more online course (headcount)	Total student enrollment (headcount)	Percent of students in one or more online course
Nationwide Higher Education (Fall 2005)	3,180,050	17,000,000	18.7%
Nationwide 2-Year Colleges (Fall 2005)	1,498,246	6,488,055	23.1%
California Community College System (2005-06)	301,073	2,549,421	11.8%

A similar growth pattern in distance education course enrollments has been occurring at my workplace, Diablo Valley College (DVC)—a suburban community college located about 20 miles east of Berkeley in Pleasant Hill, California. It is the largest of three colleges in the Contra Costa Community College District. Over 20,000 students attend DVC each fall and spring semester and an increasing number of these students

are taking distance education courses via the Internet. From spring 2002 to spring 2007, the number of students enrolled in one or more online courses rose from 4.2% to 16.4% of the total number of college enrollments. From 2002 to 2007, the number of online course sections offered per year rose from 86 to 393, a 357% increase over 5 years. These courses are all Internet-based and asynchronous—students can interact online with the course at anytime. The significant increase in the number of students and faculty that are taking and teaching online courses has occurred relatively quickly over the past five years on a national, state and local level.

DVC is a traditional community college, founded in 1950, with a strong reputation for preparing students to transfer to four-year colleges and universities. For most of DVC's history, distance education enrollments have been very low in comparison to traditional courses and thus have received relatively low amounts of institutional resources. Furthermore, given the virtual nature of online courses, distance education has been somewhat invisible to the larger body of students, faculty and administrators. In contrast, the college allocates many more resources to supporting students and faculty at the physical campus: Admissions, registration, financial-aid, academic assessment, counseling, advisement, classrooms, labs, library, tutoring, disability services, book-center, information-center, career services, employment services, staff development, etc. With the rising popularity of the Internet in the late 90's, some of these services have become progressively available online, in addition to on-campus. However, with the exception of online admissions and registration, which receives significant ongoing funding and support by the district office, the bulk of

ongoing institutional resources are still allocated to the traditional walk-up services on campus.

It is only in the past several years that DVC has become more substantially aware and concerned about online courses and support. This awareness and concern has manifested itself in various ways. In 2005, the college submitted a substantive change proposal to the Accrediting Commission in anticipation of offering 50% or more of a program via distance education in the future. This was done per the requirements of the commission for community colleges. In 2006, the DVC Office of Planning, Research and Student Outcomes published a report entitled, "Predictors of Success in Distance Education Courses 2000-01 to 2004-05" (Eisa, 2006). This report included a history of statistics of online enrollment trends, demographic profiles, faculty productivity and academic performance. While it raised administrative and faculty awareness of online courses and student demographics, it also raised concerns about online student success and retention. Two statistics were of particular concern: (a) the overall difference in course *retention* rates (withdrawal versus non-withdrawal – see definition section) across all disciplines and averaged from fall 2002 to spring 2005 was 10.2% less for online courses than traditional courses (80.7% versus 70.5%), and, (b) the overall difference in course *success* rates (grade C or better – see definition section) across all disciplines and averaged over the same time period was 15.5% less than traditional courses (70.0% versus 55.5%). Another recent manifestation of awareness and concern was the district chancellor's convening of a district-wide group to review the status of distance education courses at each college. It came as a surprise to some to discover

that DVC nearly offered enough different online courses for a student to get an

associates degree—entirely online. It was also illuminating to see the number of

students that crossed college boundaries to take online classes throughout the district.

Awareness was also raised through the recent development and institutional adoption

of the "Diablo Valley College Online Course Guidelines" (Seaberry, Seefer, & Skapura,

2007). The purpose of these guidelines was to "summarize and document the current,

applicable state and local policies, procedures, practices, regulations and resources

related to distance education at Diablo Valley College" (p. 4).

In late-2006, the district amended the collective bargaining agreement with the

faculty union to include specific procedures for evaluating faculty of online courses. This

amendment was necessary to standardize the ad hoc processes for evaluating part-time

faculty who taught online. The new procedures for online faculty were mostly a

duplication of the existing evaluation procedures and did not account for differences in

pedagogy between online and traditional instruction. Nor did they require that the

evaluator have any prior experience with teaching online. Furthermore, the new

procedures do not require that full-time faculty include online courses in their

evaluation process if they also teach traditional courses. If they teach a combination of

online and traditional courses, they may choose to include only traditional courses as

part of their evaluation.

Some academic divisions have passed bylaws to limit the ratio of online courses

that may be taught by full-time instructors to a maximum of 60% load. This was done in

order to help ensure that full-time instructors are on campus on a regular basis,

attending meetings, and fulfilling their professional duties. Thus, for an instructor that would normally teach five three-unit courses for their full load, no more than three could be taught online. Not all of the academic divisions have passed such bylaws and such bylaws do not apply to part-time faculty. In general, part-timers are not expected, or compensated, to perform additional duties outside of the classroom. Under normal circumstances, part-time instructors may not teach over a 60% load at DVC and this generally translates to a maximum of three courses. These courses may all be taught online or on-campus or any combination thereof with no such restrictions in the division bylaws or faculty contract.

The increase in the number and variety of online courses at DVC has been largely driven by faculty interest. This is not unlike how many other community colleges have developed their online programs. According to the "Annual Distance Education Institutional Survey" of the California Community Colleges Distance Education Report (Nather, 2007), most California Community College faculty members learn to teach online through their own initiative (p. 52) and the most important issue for "developing, teaching and delivering distance education courses" is "student learning" (p. 54). At DVC, it is the responsibility of the faculty to revise course outlines accordingly before a course can be offered via distance education for the first time. It is the responsibility of the faculty to learn how to (a) teach and interact with online students, (b) use the online course management system (WebCT), (c) obtain or develop online course content, (d) structure the online course, (e) assess online students, and (f) learn about all of the vagaries of teaching online, etc. It is a time consuming and potentially onerous process

that requires a significant commitment. To help jump start this process, for a brief period many years ago, DVC provided stipends to faculty for the development of online courses. To help facilitate this process, DVC hired a full-time instructional technology coordinator to plan ongoing workshops, summer institutes and provide one-one-one support throughout the year to assist faculty in making the transition to teaching online courses.

In recent years, the Accrediting Commission has become more aware and concerned about distance education. In 2007, The Accrediting Commission for Community and Junior Colleges (ACCJC) of the Western Association of Schools and Colleges (WASC) published a revised "Distance Learning Manual" to provide guidelines for colleges and visiting teams to use for evaluating the quality of distance education programs (ACCJC/WASC, 2007). The areas of concern of the commission are identifiable by the document subheadings: Motivation, mission, educational programs, curriculum, faculty, students, library, learning resources, institutional effectiveness, organization, planning, human resources, facilities, equipment, catalogs, publications and intellectual property rights. The commission anticipates that the number of online courses and programs will increase even more in the future due to the 2006 federal legislation (Higher Education Act) which removed the restriction of financial aid to colleges offering more than half of their degree programs via distance education. This law enables colleges to increase the number and types of online programs beyond half of their curriculum without limiting student enrollments that depend upon federal financial aid.

There have been a multitude of past studies which demonstrate that there are no significant differences in student achievement, via distance education versus the traditional classroom (Russell, 1999). Now the tables have turned somewhat, and many scholarly practitioners would argue that online education is even more effective than traditional education and should serve as an "exemplar of how faculty should teach and how students should learn" (Beaudoin, 2006, p. 17). Some researchers argue that online education has great potential as a constructivist learning environment—exceeding the limitations of the traditional classroom—and future comparative studies should focus on constructivist outcomes over traditional outcomes (McDonald, 2002; Swan, 2005). Other researchers have suggested that principles of good practice in undergraduate education apply as well to online learning as they do to the traditional classroom (Chickering & Ehrmann, 1996; Chickering & Gamson, 1987). In one-on-one discussions with DVC instructors about teaching online, many have said that teaching online has changed how they teach in the classroom—for the better.

The Sloan Consortium, which consists of "institutions and organizations committed to quality online education" (Sloan-C, 2007), has published research-based effective practices for quality online education. This research is organized around "five pillars" of quality: (a) Student satisfaction, (b) faculty satisfaction, (c) access, (d) learning effectiveness and (e) institutional cost effectiveness. Researchers have found that these pillars are interdependent and that online students and faculty will not be well satisfied if one or more pillars are greatly lacking in efficacy (Benke, Bishop, Thompson, Scarafiotti, & SchWeber, 2004).

For this study, I focused primarily on exploring the two pillars of *student satisfaction* and *faculty satisfaction* with online courses at Diablo Valley College. I chose these because they are important in the distance education and general education literature and they are positively associated with student retention and success—important issues for DVC. According to Astin, "there is a consistent positive association between student satisfaction, undergraduate GPA [success], and retention" (1993, p. 311). According to Chickering and Ehrmann, technology is a useful tool for implementing the seven principles of good practice in undergraduate education (1996). According to Benke, et al. (2004), there is a positive association between faculty satisfaction and student satisfaction. The literature also discusses various aspects of online students and online courses that predict success. These student aspects include age, prior online experience, comfort with technology, etc., and the course aspects include student orientations, interactive technology and effective feedback, etc. These are all positively associated with student retention in online courses. This case study explored all of these aspects of online courses as well as additional issues that were raised in the course of the study through student and faculty focus group discussions and surveys. A complete description all of the data resources and variables of interest are provided in Appendices A and B.

Statement of the Problem

A significant number of students are taking online courses at DVC and, based on past growth, this number is expected to increase in the foreseeable future. At the current growth rate, about one-third of all DVC students will enroll in one or more

online courses by 2012. Given this anticipated growth in distance learning, it is critical

that the college recognizes and values this instructional delivery mode to ensure that it

is providing quality education and support services for online students and faculty. In

2006, the DVC Office of Planning, Research and Student Outcomes produced a report

that found that DVC online courses have much lower success and retention rates than

traditional courses. Since this report was published, these gaps have narrowed

somewhat, but they continue to persist. If these gaps are not effectively addressed, they

may negatively impact a growing contingent of future online students. The college

needs to better understand this growing phenomenon to ensure that all students—

online and traditional—are successful, and to fulfill its educational mission.

As of fall 2007, the college does not know how well satisfied or dissatisfied

students and faculty are with online courses and support services. DVC does not provide

student evaluations at the conclusion of online (or traditional) courses unless the

instructor is being evaluated—then such evaluations are only available to the instructor

and his/her evaluation committee. DVC has not conducted institutional satisfaction

surveys specifically for online students and online faculty. Given that researchers have

demonstrated the importance of online student and faculty satisfaction, and a positive

correlation between student satisfaction and success, it is important to know how well

satisfied online students and faculty are with online courses. Without such knowledge,

we cannot well focus our efforts on serving this growing population. As the number of

online course enrollments continues its steady growth, we need to ensure that online

students and faculty are not only well satisfied, but they are provided with exemplary instructional and support services for success.

Statement of Purpose

The purpose of this study is to explore the experiences of online students and faculty and determine whether there are identifiable needs, trends or issues to address to ensure that online students and faculty are satisfied and successful. A secondary purpose is to contribute to the field of research and scholarly practice related to student and faculty satisfaction and success in online courses. The results of this study will provide a better understanding of online students and faculty and inform data-driven decision making for future planning, policy development, implementation and evaluation of online courses and support services.

Research Questions

The following research questions were addressed using an exploratory case study approach with mixed methods of quantitative and qualitative analyses. The two embedded units of analysis were (a) adult students enrolled in 3-4 unit, full-term online courses, and (b) faculty of online courses:

1. How satisfied and successful are students and instructors with online courses?

2. What are the student characteristics, activities or perceptions that are associated with overall course satisfaction and success? Are there any significant differences between the characteristics, activities or perceptions of successful versus non-successful students?

3. What are the faculty characteristics, activities or perceptions that are associated with overall course satisfaction?

4. What areas should be addressed by the college in order to foster student and faculty satisfaction and success with online courses?

Definition of Terms

The following terms are used in this study and are defined here according to their intended meanings.

Asynchronous: "Communication in which interaction between parties does not take place simultaneously" (Mora, 2004, p. 27).

Blended (Hybrid) course: A course where students meet with the instructor in a traditional manner (on campus) for part of the time and via distance education (typically online) for the other part of the time.

Community college: An open-access college that offers the first two years of postsecondary education with a focus on preparing students for transfer to a four-year college, an associate's degree, workforce preparation or basic skills.

Course: "A course is a unique offering by a college, which has a unique course outline that has been approved by a local college's curriculum committee (e.g., Bio. 1: Principles of Biology)" (Nather, 2007, p. 1).

Course Management System (CMS): A course management system is an online environment for conducting courses. Two popular CMS systems among community colleges are Blackboard and WebCT.

Course section: "A course section is an individual course offering at the local

college" (Nather, 2007, p. 1).

Course session: "A unique instructional occurrence within a course section"

(Nather, 2007, p. 1). For the purpose of this study, a course session is equivalent to a

course section.

Distance Education (DE): "Instruction in which the instructor and student are

separated by distance and interact through the assistance of communication

technology" (Mora, 2004, p. 31).

Face-to-face: Instruction that occurs in the same place and time whereby the

students and instructor have physical eye contact in a classroom setting.

Online course: "A course where most [80%] or all of the content is delivered

online. Typically have no face-to-face meetings" (Allen & Seaman, 2006, p. 4).

Online course components: These are components of the online course such as

the discussion among students, discussion between instructor and students, instructor

feedback, textbook publisher plug-ins, streaming video, streaming audio, course

management system, etc.

Retention rate: The ratio of the number of enrollments with a grade of A, B, C, D,

F, CR, NR, I (numerator) compared to the number of enrollments with a grade of A, B, C,

D, F, CR, NR, I, W (denominator), ("California Community Colleges Chancellor's Office

Data Mart," 2007).

Seat count: The number of student enrollments in a class.

Success rate: The ratio of the number of enrollments with a grade of A, B, C, CR (numerator) compared to the number of enrollments with a grade of A, B, C, D, F, CR, NR, I, W (denominator), ("California Community Colleges Chancellor's Office Data Mart," 2007).

Support services (faculty): A variety of college services offered to assist faculty with teaching online. Such services include workshops, one-on-one support, technical support, institutional support.

Support services (students): A variety of college services offered outside of the classroom to help students get into the class and succeed. Such services include registration, orientation, assessment, counseling, financial aid, tutoring, library resources, technical support, testing, etc.

Synchronous: "Communication in which interaction between participants is simultaneous" (Mora, 2004, p. 38).

Telecourse: "A video-based course which uses a fully integrated package of video instruction combined with instructional support materials (for example, a textbook, a student study guide, and a faculty resource guide). Telecourses are delivered in a variety of ways, including television broadcast" (Mora, 2004, p. 39).

Traditional course: A course where the instructor and students are together in a physical classroom or lab on campus.

WebCT: A web-based course management system for hosting online courses. WebCT includes web course tools such as email, discussion area, chat, gradebook, syllabus, web links, textbook plug-ins, instructor resources, etc.

Withdrawal (W): The grade given when a student drops a course within a given time period—after 25% and before 75% of instruction has elapsed for the course.

Limitations of the Study

This study is limited to DVC online students (adult-age) who were taking at least one 3-4 unit online course that met full-term during fall semester, 2007. This consisted of 45 online courses and 78 online sections. These courses were in the subjects of Administration of Justice, Anthropology, Art History, Astronomy, Business Accounting, Computer Science, Economics, Engineering, English, Film, Geography, History, Health Science, Journalism, Mathematics, Music Literature, Psychology and Speech. This study is limited to DVC online faculty who taught online courses of any unit load or duration during fall semester, 2007. This study also includes students and faculty whose primarily association is with the San Ramon Campus—a satellite center of Diablo Valley College. This study is not designed to demonstrate results that generalize beyond DVC, however, the results may very well apply beyond DVC and may be of interest and pertinence to scholarly practitioners at other community colleges and the educational research community.

Significance of the Study

Distance education is a rapidly growing phenomenon at Diablo Valley College. To be successful in the future, we must better understand how well we are currently meeting the instructional and support needs of online students and faculty in light of the larger body of research and practice in the field. This study will provide DVC students and faculty—for the first time—with the opportunity to make their

satisfaction/dissatisfaction levels with online courses and support services known to the college. The results of this study will help the college to make data-driven decisions for planning, implementation, evaluation, policy development and resource allocation for distance education. Also, this study provides a baseline for longitudinal studies that may be conducted in the future for self-evaluation or research purposes.

This study may be of significance to distance education researchers and scholarly practitioners at other community colleges. It will provide a rich and current dataset of student and faculty experiences with online courses at a suburban community college in light of distance education and general educational theory. The student satisfaction data will be correlated with key survey questions, background information, course activities and course grades in an effort to identify important factors for student and faculty satisfaction and success in online courses. This study provides a contemporary online context in which to explore distance education theories and the general education theory that student satisfaction is positively associated with student success. The results of this study may be used to refute or support similar studies in student and faculty satisfaction with online courses.

Summary

In summary, the number of student enrollments in online courses has been increasing significantly in the United States, California, and Diablo Valley College, and this trend is expected to continue in the future. As promulgated by the accrediting commission, it is important for online students to receive the same level of instruction and support as traditional students. At DVC, students are somewhat less successful in

online courses than traditional courses. Could this lower success rate be related to a lack of satisfaction with online courses? In what ways are students and faculty satisfied or dissatisfied with online courses? We need to better understand the environment of online education in order to ensure that online students and faculty are satisfied and successful. This case study will explore the experiences, characteristics and perceptions of online students and faculty and search for patterns of satisfaction and success with online courses. The next chapter is a review of the literature with respect to distance education and best practices for online student and faculty satisfaction and success.