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Student satisfaction with online learning effectiveness at a Connecticut community college

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ABSTRACT

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Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
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In recent years, institutions of higher education have dramatically increased the number of online courses and degree programs offered to students, and yet it remains unclear what factors determine student satisfaction with online course and instructor effectiveness. Accordingly, the purpose of this exploratory correlation study was to examine how factors related to courses and instructors contributed to student perceptions of course quality (CQ) and instructor effectiveness (IE). Six stepwise regression procedures assessed the effects of specific course and instructor characteristics on perceptions of CQ and IE across one year of course evaluation data collected in a northeastern 2-year college. Results revealed that IE, quality of readings and assignments, and quality of threaded discussions had significant effects on CQ. In turn, student ratings of CQ, instructor-inspired interest in course material, and instructor availability and helpfulness had significant effects on IE. The results of the study can allow higher education administrators to make more effective decisions regarding online instruction and course structure, thus leading to increases in student persistence and success within online courses and programs.

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DEDICATION

God is faithful, and this work is a testimony that He is able to do exceeding abundantly above all that we ask or think. I have fought a good fight, I have finished my course, I have kept the faith. I have been reminded that I can do all things through Christ who strengthens me. For it is not by might, not by power, but by His spirit that this work was completed.

Luke 2:14; 1 Corinthians 1:9; Ephesians 3:20; 2 Timothy 4:7; Philippians 4:13; Zechariah 4:6

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CHAPTER 1: INTRODUCTION TO THE STUDY

Distance education has been a part of the educational system in the United States for centuries. In the early 18th century, early changes in curricula involved Benjamin Franklin and his efforts to expand the curriculum of a Latin grammar school to include history, science, and modern languages (Verduin, 1967). Franklin began to think creatively regarding ways to incorporate such subjects into the curriculum by providing educational opportunities while the student and instructor were at a distance. Since then, a great variety of distance education methods have been utilized.

Distance education is any formal learning that occurs when the instructor and student are geographically separated (Verduin & Clark, 1991). Distance education, therefore, is a broad term that encompasses all formal learning that occurs by way of a variety of media. These media may include radio, television, telephone, recorded audio, postal mail, and computer networks.

The majority of distance education no longer occurs via postal mail, radio, or broadcast television. Instead, a large portion of distance learning is communicated via the Internet or video (Palloff & Pratt, 2001). Online

education, which involves the use of the Internet as a major medium of communication, is a subcategory of distance education. Therefore, while online education is utilized in a majority of current distance education efforts, it is not the only form of this type of educational delivery.

Online education has increased in popularity in recent years, and is expected to continue to grow based on projected figures related to the use of the Internet and advancements in technology (Lee & Nguyen, 2007). The rapid expansion of the use of this medium has necessitated a deeper understanding of challenges facing university students, faculty, and administrators.

In response to the need for a deeper understanding of online education, researchers have begun to analyze its effectiveness. Online learning is effective if it meets the needs of those it serves. Because students are increasingly exposed to this medium, it is important to understand their perceptions of effectiveness within online education.

Studies continue to debate the effectiveness of online learning (Jiang, Parent, & Easmond, 2006; Wang, 2006); these and similar studies will be presented in detail in Chapter 2. A number of these studies have analyzed online learning effectiveness, while others have analyzed student

satisfaction. However, the relationship between students' satisfaction with course effectiveness and determining factors as well as the relationship between students' satisfaction with instructor effectiveness and determining factors remains unclear. The subject of this study was a medium-sized, centrally located community college in the state of Connecticut that offers both online and face-to-face courses. This college will be referred to in this study as "Brown" Community College (BCC) to protect the identity of the college as a data source.

Statement of the Problem

In recent years, higher education institutions have increased the number of online courses offered to students. Consequently, the need exists to understand the effectiveness of online education more completely. Previous studies have analyzed the effectiveness of online education based on student examinations (Newsome Jr., 2008) and faculty perceptions (Gonzalez-Castillo, 2008). However, a number of these studies have failed to capture the perceptions of those that academic institutions seek to serve—the students. It is therefore beneficial to improve the general understanding of students' perceptions of

effectiveness. Specifically, the problem is that it has not been clear whether specific factors can determine student satisfaction with course effectiveness and instructor effectiveness at BCC.

Purpose of the Study

The purpose of this quantitative study was to identify factors that were influential in determining student satisfaction with overall course and instructor effectiveness at BCC.

Research Questions

The study attempted to respond to two central concerns with respect to the online classroom. Each concern has been translated into the form of a question, which served as a research question that guided the study. The research questions were as follows:

1. What factors determine student satisfaction with overall course effectiveness at BCC?

2. What factors determine student satisfaction with overall instructor effectiveness at BCC?

Hypotheses

The following null hypotheses were tested to identify factors that determine student satisfaction with course and instructor effectiveness. Hypotheses 1, 2, and 3 addressed the dependent variable of student satisfaction with course effectiveness, while Hypotheses 4, 5, and 6 addressed the dependent variable of student satisfaction with instructor effectiveness. If a null hypothesis was rejected, the findings supported the related alternative hypothesis.

Hypothesis 1

Student satisfaction with the degree to which readings and assignments contribute to learning (X1) is an influential factor in determining student satisfaction with overall course effectiveness (Y1).

Hypothesis 2

Student satisfaction with the degree to which threaded discussion contributes to learning (X2) is an influential factor in determining student satisfaction with overall course effectiveness (Y1).

Hypothesis 3

Student satisfaction with overall instructor effectiveness (X3) is an influential factor in determining student satisfaction with overall course effectiveness (Y1).

Hypothesis 4

Student satisfaction with the degree to which the instructor inspires interest in course material (X4) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

Hypothesis 5

Student satisfaction with the degree to which the instructor is available and helpful (X5) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

Hypothesis 6

Student satisfaction with overall course effectiveness (X6) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

Nature of the Study

The objectives of the study included gathering data from a sample of the research population. The results were then analyzed and organized to ascertain any correlation between dependent and independent variables. The significance of the findings to the purpose of the study was then identified.

Theoretical Foundation

The present study represents the intersection of several distinct schools of thought, specifically those within leadership and organizational change. Thus, it is important to identify the previous studies within each of these areas that are foundational to the current study. Within the current body of literature, ideas of Serim (2007) as related to educational change, Tu (2005) and Dawson (2007) as related to the use of technology in online education, Dupin-Bryant (2004) as related to online student satisfaction and retention, and Ed Klonoski (Distance learning, 2004) as related to the state of Connecticut are relevant to the study. They will be presented in more detail in the following chapter.

Change continues to occur within academia, and educational leaders will likely improve effectiveness if they are able to respond to the changing demands of students, technology, and state regulations. Online education, therefore, should be examined in an effort to create change and improvements in online learning. The study addresses the current gap in the literature by responding to the two research questions. The aforementioned literature grounds this study and partially describes the leadership and organizational change bodies of knowledge to which the study contributes. In Chapter 2, a more comprehensive analysis of foundational studies within each of these areas is presented.

Definitions

The following terms were defined in accordance with their use in the study.

The Connecticut Distance Learning Consortium (CTDLC): An organization that supports distance learning efforts of member academic institutions in the state of Connecticut.

Distance education: Education that occurs while the instructor and student are in separate geographic locations.

Distance learning: Learning that occurs through distance education.

Higher education: Postsecondary education, including education provided by public and private 2-year and 4-year academic institutions.

Likert survey: A survey involving the use of intervals on a scale as potential responses; used interchangeably with *Likert-type survey* and *Likert-scale survey*.

Online education: Education that occurs by way of the interaction between student and instructor via the Internet.

Online learning: Learning that occurs through online education.

On-ground classes: Classes held in a traditional setting in which instruction occurs while the instructor and student are in the same location at the same time; used interchangeably with *face-to-face*, *on-campus,* and *on-site* classes or courses.

Assumptions

1. The success of online education is affected by the perceptions of students regarding course and instructor effectiveness.

2. Learning improves when students are more satisfied with the course and instructor.

Limitations

1. Survey data from BCC may not be representative of all higher education academic institutions in Connecticut, and the results of the study may not be applicable outside of BCC.

2. Due to the return rate of voluntary surveys at BCC, survey responses may not accurately reflect the perspectives of all students at BCC.

3. The results of regression analyses involving smaller sets of data may be less reliable. Consequently, the study involved data sets with at least 100 data points.

4. The study sought to utilize numerical data to identify relationships between dependent and independent variables. Qualitative explanations for these relationships were not implied.

Scope

The scope of the study involved students who voluntarily responded to online course evaluation surveys near the conclusion of an online course at Brown Community College. The findings may be generalizable only to BCC. The study did not analyze responses to open-ended questions and, therefore, did not seek to explain any identified relationships between dependent and independent variables.

Significance

The study has professional implications, specifically within the management of online higher education. College and university administrators will be equipped with the knowledge necessary to make appropriate changes to online courses and curricula. By better understanding and responding to student needs, they will likely improve the amount of learning that occurs via the online classroom.

Learning may also be improved through decisions made concerning the appropriate allocation of resources to online education. Upon reviewing the findings, higher education administrators may elect to modify the number of online courses offered, the size of online classes, and the number of faculty members teaching online courses. In

addition, administrators may elect to make changes to the portion of the financial budget available for related training, maintenance, and technical support. Furthermore, the results allow instructors to more effectively manage online courses, and allow students to make more appropriate decisions that may lead to personal success in the online learning environment. The cooperation and commitment of administrators, faculty, and students as a result of the study will likely lead to an increase in the quality of online education.

The study has societal implications in addition to professional implications. Because the findings allow college and university administrators the opportunity to increase the quality of learning in the online classroom, the study ultimately has the potential to improve education as a cornerstone of society. Improvements in the quality of education may lead to a higher quality of life within society. In other words, the investment in individual human capital may benefit the state of Connecticut and society as a whole. In this way, the study may cause positive social change through education.

Summary

Chapter 1 provided a general introduction to the study. The problem statement, definitions, and theoretical base provided foundational information. The presentation of the assumptions, limitations, and scope of the study provided additional clarification.

The purpose of this quantitative study was to identify whether there were factors that could determine student satisfaction with overall course and instructor effectiveness. The sample of students included those who have completed an online course at a community college in Connecticut. The study is significant because it provides information that allows higher education students, faculty, and administrators to make more appropriate decisions regarding online education. The study has the potential to cause positive social change by way of an increase in the quality of education.

Chapter 2 presents a review of current literature that is relevant to the study, while Chapter 3 provides an in-depth analysis of the research design and methodology. The sample, variables, data collection instrument, and data collection processes are described in detail in Chapter 3.

The results are provided in Chapter 4, and conclusions are presented in Chapter 5.

CHAPTER 2: LITERATURE REVIEW

A review of relevant leadership and organizational change literature is presented in this chapter. In particular, literature related to recent changes in Connecticut distance education is analyzed. The study lies at the intersection of specific fields of study and, therefore, benefits from an analysis of individual schools of thought. The theoretical framework and analysis of contemporary concerns within online education contribute to a comprehensive understanding of the research variables. In addition, studies associated with technological change, change within education, research methodology, and education in the state of Connecticut are foundational to the study. The most recent literary contributions within each of these areas are analyzed in the following sections.

Educational Change

The status of online education continues to change, and a number of recent changes within education involve online learning. The number of online course offerings has increased, and nearly two thirds of academic institutions that offer face-to-face courses also offer online courses (Online education, 2006). The number of online courses

offered will likely continue to increase in the foreseeable future. In fact, online education is a long-term strategy for most educational institutions (Brown & Corkill, 2007). Online learning is not a short-term implementation of a temporary educational approach. The United States spends more than 500 billion dollars on K-12 education alone (Electronic Education Report, 2005), and some of these funds have been redirected to support online educational efforts.

Despite the decrease in the U.S. educational technology budget by more than half from 2004 to 2006, the number of online courses and the use of the Internet in education will continue to rise (L.B., 2006). The smaller amount of federal funds set aside for educational technology does not imply that technology in education will subside. Instead, schools are faced with the challenge of effectively managing the demands of larger online programs and smaller budgets. Schools elect to face this challenge in anticipation of reaping the benefits of online learning programs, and both policymakers and teachers acknowledge these benefits (Serim, 2007).

Students also recognize the benefits of online education. In particular, this type of education eliminates

many of the time-related and location-related barriers that exist in the face-to-face classroom (Serim, 2007). For example, restrictions within an on-ground course include a required meeting time. A student with employment, family, or other commitments may be unable to complete such a course if the meeting time conflicts with his or her availability.

Similarly, the required commute to the location of an on-ground course may constitute a restriction for students. They may be unable or unwilling to secure transportation and incur transportation costs related to attending face-to-face class meetings. These restrictions, which may prevent a number of students from enrolling in on-ground courses, may be motivating factors for students to consider online learning. However, students as well as instructors and administrators will likely benefit from the knowledge of changes within online education.

Technological Change

The increase in the number of online course offerings continues to inspire change in online learning. Specifically, there are several technological advancements. Technological media are available for educational use, and

they provide an effective method of communication between students and instructors (Tu, 2005). In order to improve online learning, it is important to understand the diverse types of technology available for use in the online classroom. Recent technological advancements that can be used in online education include RSS, podcasts, blogs, and wikis. Their potential use within education is described in more detail below, and provides a foundation for the comprehensive understanding of educational change and its application to the current study.

RSS

One of the recent technological advances is referred to as RSS, which has been has been used as an abbreviation for Rich Site Summary, RDF Site Summary, and Really Simple Syndication (Zhu, 2006). While writers do not agree as to the precise terminology, the function and the abbreviation are the same. The majority of recent literature, however, refers to RSS as an abbreviation for Real Simple Syndication.

RSS is a technology that allows users to constantly receive updated information. In the past, Internet users would need to first search for information, perhaps using a

search engine such as those provided by Google or Yahoo. Using RSS, however, users no longer need to constantly search for updated information. Instead, users select topics about which they would like to receive updates, then add the topics to a list in a program that is designed to collect such topics. The program is called an aggregator and the topics of information are called feeds (Richardson, 2006). RSS allows users to select feeds, add them to an aggregator, and wait to receive nearly instantaneous updates.

RSS uses XML format, which is commonly used for web page development (Zhu, 2006), so the format itself is not new. However, the manner in which the format is used is creative and innovative. RSS has the ability to access several news Web sites, for example, and notify a user when information regarding world and local events is updated. It is no longer necessary for the user to search for updated information, nor is it necessary for him or her to access the original news Web site. Instead, the information comes to the user, which saves both effort and valuable time.

While there are several advantages to the use of RSS feeds, it is also important to understand related drawbacks. One of the drawbacks involves the overwhelming

amount of information sent to the user. At first, it may seem as though receiving constant updates is a welcome change. However, it is possible to receive more information than one could expect to review in a single day. To avoid this negative effect, users may slowly add RSS feeds to determine the most appropriate number of feeds. For most beginners, the number of feeds should be restricted to 20 (Richardson, 2006). This restriction is likely to decrease stress associated with too much information.

Decreasing stress is important to both students and instructors, who are increasingly using RSS feeds. This technology allows instructors to have more control over information that students receive (Richardson, 2006). For example, students in an online business law course may be studying accounting practices at Enron. Rather than constantly check news sites for updated information, the instructor may choose to download an aggregator, search for Enron once, and add the feed to the aggregator. At that point, it is no longer necessary for the instructor to check for updated information. Instead, he or she can dedicate the additional time to students.

The initial setup of the RSS feed could be accomplished in a variety of ways. A person could choose to

use a computer programming language, an RSS editor, or pure HTML code. An additional option allows a user to forgo any of these options and add the feed manually. The most appropriate choice is dependent upon the manner in which information is stored on Web sites (Zhu, 2006). To maximize benefits, and minimize time and effort involved, one should verify the way information is stored on a site prior to initializing a feed.

Podcasts

RSS feeds are used in conjunction with other technologies, including podcasts. The use of podcasts has increased since 2004, and is a way for individuals to share information (Eash, 2006). They utilize RSS feeds to collect audio clips (Flanagan & Clanadra, 2005). In the past, it was necessary to periodically locate audio files on the Internet. Podcasts are an automated version of this process. For example, users can identify the type of music they would like to automatically receive, saving the time and effort of locating the individual audio files.

Because podcasts use RSS feeds, the process of obtaining audio files is similar to the process of obtaining text files, such as updated news articles. A user

joins a podcast series, and each time a new audio file is added to the series, the file is automatically downloaded via the Internet (Eash, 2006). Because files are downloaded over the Internet, users must be connected to the Internet to receive files. If the user disconnects from the Internet, new audio files will automatically begin to download once he or she reconnects.

Due to podcasts, it is no longer necessary for a student to constantly search the Internet for a new song for a research project. Instead, the files are automatically transferred during the day, as long as there is an Internet connection (Flanagan & Calandra, 2005). Audio clips gathered using podcasts can be as short as a few seconds and as long as a few hours (Each, 2006), which means that they can record an entire lecture. In fact, the majority of educational podcasting involves the recording of lectures. However, newspaper articles and audio versions of textbooks may also be distributed to students (Flanagan & Calandra, 2006).

Duke University has identified unique ways to utilize podcasting for educational purposes. In 2004, the incoming class of nearly 2,000 students received Apple iPods, which store prerecorded audio files. The freshman class was able

to listen to information, which included introductions from administrators, advice from current students, sports schedules, the university song, the academic calendar, and the orientation schedule (Flanagan & Calandra, 2005). Duke University took the opportunity to use podcasts in creative ways, which may increase the likelihood of the success of incoming freshmen.

There are several benefits to the use of podcasts, both within and outside of the classroom. Podcasts allow users to share information and to access information that others are willing to share (Eash, 2006). Within education, sharing allows students to connect with others in innovative ways, thereby increasing the size of learning communities. Accessing audio clips of information nearly instantaneously allows students to stay abreast of current information. Both uses of podcasts—sharing and accessing of information—are beneficial to students.

These two uses, however, are not the only benefits of podcasts. Podcasting is also a way to involve students who need or desire additional support in the online classroom (Eash, 2006). This supportive role of podcasting is beneficial, and allows instructors to teach to students with average ability in a class, and to provide additional

opportunities for remedial and advanced students. Remedial students may appreciate the opportunity to pause and replay audio clips, while advanced students may appreciate the opportunity to learn the many ways in which course material may be applied outside of the classroom.

Increasingly, podcasts are utilizing more than audio clips of music, voice, and sounds. Many include photographs or video clips (Eash, 2006). This form of video podcasting, or vodcasting, utilizes RSS feeds to deliver video clips rather than—or in addition to—audio clips. Research related to vodcasting is in its early stages, yet it already shows that there is no significant difference between audio instruction and face-to-face instruction (Flanagan & Calandra, 2005). In addition, podcasting may be less expensive than face-to-face instruction in the long run (Flanagan & Calandra). Therefore, podcasting may be a welcome change and addition to both face-to-face and online instruction.

Blogs

Blogs represent another technological advance that may be used for educational purposes. They are an avenue for users to express themselves in written form, and they have

the ability to notify readers of updates to the blog. In addition, they provide the opportunity for one to communicate with several individuals without sending numerous e-mails (Colgan, 2005).

In essence, blogs are a technological advance in the area of communication. They allow users to post information that others may access at any time after learning of an update. Thus, blogs are more convenient than previous methods of communication. Writers no longer need to send several notifications, and readers no longer need to check for updates. Instead, updates are automated.

Teenagers, who are the largest group of blog users and represent half of all users, utilize blogs to stay abreast of changes in topics of interest (Colgan, 2005). Because blogs may be written by nearly anyone, they are also an avenue for interacting with others and building online communities. As instructors become more familiar with blogs, teenagers are also using blogs in the classroom—both in K-12 and higher education classrooms.

In a number of classrooms, instructors create a blog and students are required to post responses. In others, students create their own blogs and are required to read other blogs using RSS feeds (Dawson, 2007). Once again, RSS

feeds can be instrumental in decreasing the amount of time and effort necessary to accomplish a task. In this case, RSS feeds allow students to automatically receive notifications when selected blogs are updated.

There are a number of additional advantages to the use of blogs in the classroom. First, they allow instructors and students the opportunity to become better acquainted, which could lead to stronger communities and more effective teaching and learning. Second, teachers and administrators who receive several e-mails each day are able to respond to many concerns by posting one blog update (Colgan, 2005). All subscribers are then able to read the update. Instructors may also save other students the time and effort of asking the same question more than once, since updates may be viewed by all students.

A third advantage of blog use in the classroom involves the instructor’s ability to review current academic and professional information (Dawson, 2007). Previously, instructors would need to individually check sources for updated information. Blogs, coupled with the use of RSS feeds, allow instructors to automatically receive updates based on their interests. While blogs do not necessarily provide peer-reviewed information, they

exhibit the potential for instructors to remain actively involved with professional organizations.

There are also disadvantages to the use of blogs. While there is the potential to use blogs as a course requirement, they should only be used as an additional option for students. Otherwise, students may become overwhelmed with information. When a person receives too much information via blogs, they experience blog overload (Dawson, 2007). The automated nature of receiving information could be at the heart of concerns related to blog overload.

Another disadvantage of blogs relates to the flow of conversations. Holding a conversation within a blog can be challenging because one writer is at the center of all interactions (Dawson, 2007). Interactions can be dependent upon the amount of effort put forth by the originator of the blog. In an educational setting, the instructor may play the role of the blog originator. This allows the instructor to have more control over the flow of the conversation within the blog.

In order to minimize the consequences of these disadvantages and maximize the effectiveness of blogs in a learning environment, instructors can take steps toward

resolving any issues. First, instructors can create a personal blog to understand firsthand how blogs operate. Second, they can change the ways that blogs are used in the classroom (Dawson, 2007). Though instructors may have used blogs in a specific manner in the past, they can be modified and used differently. As instructors learn more about blogs and their effect on learning, they can make changes to increase the likelihood of their effectiveness in the classroom.

Wikis

Another technological advancement that can be used in the classroom is a wiki, which provides a simplified method for users to edit Web pages. The term *wiki* is derived from the Hawaiian word for quick, and allows users to quickly modify the content of Web pages using linked wiki pages (Chang, 2004). In other words, wikis represent a simplified method for managing online content (Chase, 2007). Appropriate content management in the classroom can lead to an increase in the sharing of information, which can in turn lead to an increase in learning.

There are a number of advantages related to the use of wikis. For example, they permit the sharing of a variety of

file types, including audio, video, and text files. In addition, files can be edited by users (Chang, 2004). This saves a Web page administrator the time and effort of responding to requests for content updates. Furthermore, the ease with which pages can be modified is likely to encourage users who are less familiar with Web page programming to become involved in the process of updating Web information.

Because wikis automatically store information regarding updates (Chang, 2004), Web administrators are also relieved of the task of responding to e-mails concerning recent changes. Instead, users can view a list of changes as well as the corresponding time and editor's name. Many of these features are included in wikis, and nearly all wikis are free (Chase, 2007). The low cost of wikis is attractive to many users, including educators.

Wikis have limitations as well as advantages. For instance, new wiki users may find editing to be a difficult learning process. This is due, in part, to formatting restrictions (Chang, 2004). However, once a person becomes more familiar with the editing process, he or she is more likely to benefit from the speed with which pages may be revised. In other words, there is a wiki learning curve.

After learning the editing process, users are likely to appreciate the advantages of the use of wikis.

A number of organizations are learning to exploit the advantages of wikis. Wikipedia is one of the most well-known wikis. It is an encyclopedia of information that permits users to contribute information. The collection of online information is available in several languages. However, the English version is believed to be the world's largest wiki (Chang, 2004). Wikipedia pages can produce very current information because all users are able to update pages. One of the drawbacks is that not all posted information is guaranteed to be factual.

There are ways to minimize negative consequences and maximize the benefits of wikis. One of the ways to accomplish these goals involves training. Effective training illustrates realistic examples of how wikis can and should be used (Chase, 2007). Realistic examples may involve navigating existing wikis, highlighting the need for wikis within the specific organization, and demonstrating ways to troubleshoot common problems. Wikis, like RSS, podcasts, and blogs, represent an avenue for change within education.

Contemporary Concerns

Technology is a powerful tool that can connect instructors and students who are not in the same place at the same time (Tu, 2005). While technological concerns are noteworthy, they do not represent the only concerns in online higher education. Other issues include those related to faculty, instructional design, evaluation methods, and student satisfaction. An analysis of each of these adds to the understanding of the research variables of the current study.

Faculty

Some of the concerns in online higher education relate to faculty members and, therefore, to the study of student satisfaction with overall instructor effectiveness and related independent variables. Instructors have personal opinions about technology in the classroom, and their opinions may affect teaching and learning in the online environment (Ferguson, 2004). Consequently, it is important to understand the concerns that instructors have regarding online teaching. A better understanding of these concerns is more likely to lead to a solution that is beneficial to online faculty, staff, and students.

Instructors may resist online learning because they believe that online instruction is very different from face-to-face instruction, requires more time and effort, and does not permit feedback through students' body language (Lee & Busch, 2005). Some of these concerns may not be resolved until instructors experience online teaching. Teaching an online course would allow faculty members the opportunity to note some of the similarities between the two methods of teaching, estimate the amount of time and effort necessary to teach an online course, and begin to interpret instructional feedback from students in written form.

The goals of faculty in online learning are the same as those in the face-to-face classroom. The primary goal is for students to learn, which involves changing the behavior of students (Ferguson, 2004). Only the medium has changed. In order to teach effectively, instructors must be knowledgeable in the use of the medium. In other words, they are expected to be both subject-matter and technology experts (Lee & Busch, 2005). When online teachers are more effective in both of these areas, students are more likely to benefit from the learning experience.

College and university administrators can take steps to increase the instructional effectiveness of online faculty. Administrators should ensure that faculty are provided with technological training opportunities, rewards and promotions encourage faculty involvement in online education, and faculty are involved in the process of making decisions regarding online learning (Lee & Busch, 2005). These steps may be executed in a variety of ways within educational institutions.

First, training opportunities can include instruction that is online or on-site, synchronous or asynchronous, and emphasize course design or instruction. Providing many different types of training sessions allows for convenience, and may increase the likelihood that faculty members elect to begin the training process. Second, instructors' involvement in online learning initiatives can be rewarded by increasing the likelihood of career advancement. Such promotional opportunities can be communicated to faculty using several methods of communication, including e-mail messages, bulletin board posts, and word-of-mouth.

Third, and perhaps most notably, there are a number of ways to involve faculty in the online learning decision-

making process. They may be invited to participate in related board meetings, offered an opportunity to vote on related matters, and kept informed of changes within online education. Such measures demonstrate that the educational institution values the input of its faculty. Valued, motivated, and involved instructors are likely to support online learning initiatives. The review of literature involving faculty members is foundational to the study of the student satisfaction with instructor effectiveness, which is the dependent variable Y2 in the current study.

Instructional Design

A number of recent issues in online learning relate to instructional design, and they address the dependent variable of student satisfaction with course effectiveness and related independent variables. Online courses can be designed in a variety of ways using one of many course management systems developed by private companies. On the other hand, an educational institution may choose to develop its own method of managing online courses. Colleges and universities face many decisions related to instructional design, and the design of online courses is one of the most vital aspects of online education (Wang &

Yang, 2005). It is important to make such decisions effectively, as they will likely affect teaching and learning in the online environment.

One of the ways to make effective decisions is to hire experts with knowledge of instructional design. Based on previous experience, these designers can make recommendations to increase the likelihood of developing a successful online learning program. In addition, they must work jointly with instructors to meet impending deadlines (Li & Shearer, 2004). Though administrators are likely to set deadlines, designers and faculty can work together and accomplish institutional goals within the predetermined timeframe.

Meeting deadlines is not the only purpose of collaboration between designers and instructional faculty. These two groups of individuals should also work jointly to determine specific project goals (Wang & Yang, 2005). Designers can make recommendations upon considering the instructional design of a course, and teachers can make recommendations after considering the impact of decisions on teaching and learning. Both parties can then make informed decisions that are more likely to meet the needs of students.

Effective instruction also depends upon communication between teaching faculty and designers. Schools should develop and implement plans that provide for regular communication between the two groups (Li & Shearer, 2004). In order to jointly determine goals, designers and instructors can convey desires and concerns using several communication channels, including the telephone, e-mail, and regularly scheduled face-to-face meetings.

Another method of improving the instructional design of online courses is comprised of training for faculty and students. A conventional training method involves the use of samples and templates (Li & Shearer, 2004). For example, a sample syllabus can be made available to new online instructors as a model for producing their individual syllabi. This effort can save designers the time and energy necessary to reply to several general questions. Instead, designers can focus on responding to more specific concerns.

Additional measures can be taken to improve the instructional design of online courses. Courses can be designed to allow students to verify their progress, thereby relieving instructors of responding to related student questions. They may also be designed with

highlighted important information, visual aids such as graphics and movies, and embedded evaluation processes (Wang & Yang, 2005). An embedded evaluation process is particularly valuable because it allows instructors and designers to receive constant feedback, thereby providing several opportunities to advance the goals of online course design. A comprehensive understanding of instructional design serves as a basis for the study of student satisfaction with course effectiveness, which is dependent variable Y1 in the present study.

Evaluation Methods

Methods of evaluation are a topic of interest in online higher education and, similar to instructional design, they are important to an understanding of student satisfaction with course effectiveness and related independent variables. Institutions have not yet agreed upon the most appropriate method of evaluating online courses. In general, the assumption is made that faculty should conduct their own evaluations of programs, courses, and students. Regardless of the selected method of evaluation, schools should assess online education at the

macro level, micro level, and meso level (Hosie, Schibeci, & Backhaus, 2005).

In online education, a macro-level evaluation involves a review of the entire educational program (Hew, Liu, Martinez, Bonk, & Lee, 2004). This type of review might include an analysis of the manner in which an online course fits into an entire degree program. Additionally, the analysis might involve a discussion of whether a degree program should be completed entirely online. Context-bound evaluations, which involve the anticipated consumer of online learning, can be used to analyze the quality of the entire online program (Hosie et al., 2005).

Evaluation that occurs at the meso level is comprised of a review of a single online course (Hew et al., 2004). This review may raise issues related to the effectiveness of course guidelines, assessment of student learning, and level of interaction between students and instructor. The appropriate instructional design of a course should also be taken into account when conducting a course evaluation (Hosie et al., 2005), as the design of a course may affect student learning.

A micro-level evaluation is the third and final method of evaluating online education. It involves an analysis of

the online student (Hew et al., 2004). Issues of concern may include student perceptions, attitudes, and feelings regarding technological and instructional design aspects of online education. These issues have the potential to affect student learning, and their identification allows an institution the opportunity to improve online learning. The literature review of diverse evaluation methods is central to the understanding of student satisfaction with course effectiveness, which is dependent variable Y1 in the current study. The data used in the study were gathered using an end-of-semester course survey, which represents a meso-level evaluation.

Student Satisfaction

One of the issues of concern in online higher education is student satisfaction. The review of literature related to student satisfaction is essential to an understanding of all variables presented in the study. In particular, the knowledge of issues related to student satisfaction is vital to the study of student satisfaction with course effectiveness and related independent variables as well as the study of student satisfaction with instructor effectiveness and related independent variables.

The demands of students parallel the demands of society. Similar to the general population, students expect—and are more satisfied with—increases in the number of flexible and accommodating services developed as a result of technological progress. In response, educational personnel have identified the need to provide instruction in creative ways (Drennan, Kennedy, & Pisarki, 2005). Online education allows for such creative methods of instruction, and has been developed in response to the changing needs of students.

Though solutions have been implemented to address students' need for flexibility, additional needs have become apparent. School administrators are concerned with the retention of online students (Dupin-Bryant, 2004). A number of students enrolled in online courses may not have otherwise taken a course due to time and travel constraints. It is likely that students do not remain enrolled in courses because they have not gained a sense of community which results from increased interaction with other students. An increase in student satisfaction may increase learning by improving retention rates. It is therefore important to clarify some of the determinants of student satisfaction by way of the current study.

Student satisfaction is affected by students' willingness to be accountable for learning the required technology, perceptions of the effort required to use computer and Internet technology, and ability to quickly recover from technological errors (Drennan et al., 2005). Identifying causes for the lack of student satisfaction can aid in generating appropriate solutions. Because a number of these causes relate to technology, instructors and other educational employees may improve student satisfaction by addressing the technology-related concerns of students.

Another way to determine the level of student satisfaction in online learning is through determinants of completion and noncompletion. The majority of students who do not complete courses are first-year and second-year undergraduates with lower grade point averages and little to no computer training, and these determinants allow instructors and administrators to identify students who are at risk (Dupin-Bryant, 2004). Educational institutions then have the opportunity to identify and meet the needs of these students before they decide to exit the course.

There are steps that may be taken to meet the needs of at-risk students. In particular, they should be offered additional support and training opportunities (Dupin-

Bryant, 2004). Training may be technical, nontechnical, or a combination of both. Technical training would allow students to become more comfortable with computers and the Internet, while nontechnical training would allow students to become more familiar with course and institutional policies. Increased knowledge of both technical and nontechnical aspects of online learning is likely to increase student satisfaction. In addition, the review of literature concerning student satisfaction is fundamental to an understanding of the study of student satisfaction with course effectiveness, which is dependent variable Y1, as well as student satisfaction with instructor effectiveness, which is dependent variable Y2. The BCC study adds to the aforementioned body of literature.

Change in Connecticut Education

Contemporary concerns also exist within the state of Connecticut. In order to shed light on educational change, Connecticut leadership, and the research variables of the current study related to student satisfaction, it is important to analyze the current status of Connecticut education. One of the recent concerns relates to the unexpected change in Connecticut state leadership. In July

2004, Connecticut's Governor John Rowland relinquished his position to Lieutenant Governor M. Jodi Rell following the threat of impeachment. Governor Rowland was under investigation due to several ethical concerns including the alleged acceptance of funds for personal use (Connecticut, 2004).

During the transition between governors, education and other issues did not receive as much attention as they had in previous months. This redirection of the focus of state leadership affected several individuals and institutions. In 2004, there were 46 public and private higher education institutions in Connecticut, including 12 public 2-year institutions (Connecticut, 2006). Brown Community College, the data source for the current study, is 1 of the 12 public 2-year colleges in the state. In addition, the population of Connecticut in 2004 was just over 3.5 million, nearly 45,000 students were enrolled in public 2-year colleges in 2002, and nearly 5000 associates degrees were conferred in 2003 (Connecticut). The 2004 state leadership decisions affected many students and colleges, including Brown Community College.

Connecticut students, however, continued to enroll in distance learning courses. One of the advantages of

distance education is the ability of students to enroll at more than one college at the same time. In Connecticut, approximately 25% of distance education college students are concurrently enrolled in courses at more than one college (Distance learning, 2004). Distance education eliminates the geographic restrictions placed on students in face-to-face classes. While schools may be geographically separated, students can take advantage of the opportunity to be enrolled at more than one of these schools in any given academic term.

While there are advantages to distance education, students have also expressed needs. Distance learning students, including students in the online classroom, want to build academic and professional relationships with instructors and students (Distance learning, 2004). They do not desire a lonely educational experience that is void of human interaction. Instead, they continue to demand access to education that they might not have had otherwise, but are more satisfied with distance learning courses that allow for higher levels of interaction.

Issues related to student satisfaction extend beyond students' need for interaction in the distance education classroom. Connecticut students may not be satisfied with

recent increases in college tuition. After Connecticut recovered from the 2004 transition in state leadership, leaders began to increase the focus on education. In fact, the state's higher education budget was increased by more than 14 million dollars to nearly 600 million dollars (Connecticut, 2004). In spite of the budget increase, several colleges and universities raised tuition rates.

Effective at the start of the 2004-2005 academic year, the University of Connecticut raised tuition by approximately 10% (Connecticut, 2004). The Connecticut State University system planned to increase tuition by nearly 14%, which is higher than the University of Connecticut increase. However, the system of four universities later modified the increase to about eight percent (Tuition Rises, 2004).

Connecticut's 2-year public colleges also chose to raise tuition rates. Although these community colleges increased rates by about 4% to $2,406 per year for state residents (Connecticut, 2004), the increase is less than that of other public institutions of higher education in the state. The percent increase in community college tuition represents about half of that of the Connecticut

State University system and less than half of that of the University of Connecticut.

The state-wide increase in tuition rates is only one of the issues facing Connecticut's potential and current college students. One of the ways to meet the needs of distance learning college students is to create an organization whose goal is to understand and address the needs of this population. The Connecticut Distance Learning Consortium (CTDLC), which supports the distance learning efforts of approximately 50 public and private colleges in the state, was developed in 1998 (Distance learning, 2004). At that time, the use of technology to delivery wholly online courses was not the norm. Today, technology is not only used in distance learning classrooms, but has been adopted for use in many face-to-face courses. The use of technology in education has become more widely accepted.

CTDLC, which supports the use of technology in education (Distance learning, 2004), may identify a need within Connecticut distance learning. Employees then locate resources, including grant funds and subject matter experts, in order to find and implement solutions to previously identified needs (Distance learning). While CTDLC also supports the needs and distance learning efforts

of faculty members and administrators, it has gathered a notable sum of information with respect to the student population.

First, CTDLC has learned about the demographics of Connecticut distance learning students. Women account for nearly three quarters of the population, and the majority of these students are at least 40 years of age (Distance learning, 2004). Because the demographical make up of the population may differ from that of a population involving only face-to-face courses, student needs may differ. In particular, the manner in which student satisfaction is achieved may differ.

Second, CTDLC researched student attrition. When the organization was first developed, it discovered that students were withdrawing from distance learning courses and programs (Distance learning, 2004). There were numerous ways in which the Consortium could address this concern. Eventually, it began to offer a course that introduced potential distance learners to technological and other demands of the independent learning experience (Distance learning). This effort has the potential to ensure that student expectations are more closely aligned with the actual experience, thereby increasing student satisfaction.

Third, CTDLC discovered that student satisfaction may be defined differently with respect to distance learning students. Students are less satisfied with the traditional interpretation of student services, which generally involves the use of updated campus facilities (Distance learning, 2004). Distance education students are not necessarily concerned with campus improvements to swimming pools, parking lots, sports facilities, or counseling centers. Instead, students likely desire access to advising, tutoring, and registration services by way of distance learning media. The review of literature involving recent changes in Connecticut education serves as a basis for the study, and is foundational to the understanding of leadership, change, and student satisfaction within the state of Connecticut.

Theoretical Framework

The study benefits from an explanation of the theoretical framework and its relationship to the variables and hypotheses, as each of the six hypotheses are grounded in the literature. Three hypotheses involve student satisfaction with overall course effectiveness as the dependent variable. Assignments are one of the three most

important areas to consider within a course (Lester, 2007). Therefore, student satisfaction with the degree to which readings and assignments contribute to student learning is tested as Hypothesis 1.

The second of three independent variables to be tested against the first dependent variable is tested as Hypothesis 2, and is student satisfaction with the degree to which threaded discussion contributes to student learning. Groth (2008) advocated the use of discussion boards in the online classroom, and students continue to support the use of threaded discussion (El Mansour & Mupinga, 2007). However, the relationship between the use of discussion boards and student satisfaction with overall course effectiveness in Connecticut higher education has been uncertain.

Student satisfaction with overall instructor effectiveness is tested as Hypothesis 3, and is the third and final independent variable to be tested with respect to the first dependent variable of student satisfaction with overall course effectiveness. The instructional design of an online course may affect student learning (Brinkerhoff & Koroghlanian, 2007). Because instructors are generally responsible for a portion of the instructional design, it

is beneficial to understand whether a student's perception of the instructor affects his or her perception of the course. A better understanding of this relationship may improve student learning.

The three remaining hypotheses are related to the dependent variable of student satisfaction with overall instructor effectiveness. Hypothesis 4 involves student satisfaction with the degree to which the instructor inspires interest in course material as the independent variable. Creative teaching techniques, including the use of gaming simulations in the classroom, can be used to motivate students to learn (Ask Naj, 2005). In addition, to ensure the quality of online instruction, teachers should vary teaching methods (Gaytan & McEwen, 2007). These teaching techniques may inspire students to learn. Student satisfaction with the degree to which the instructor inspires interest in course material may affect student satisfaction with the effectiveness of the instructor, and this relationship is tested as Hypothesis 4.

Hypothesis 5 also involves the dependent variable of student satisfaction with overall instructor effectiveness. However, the independent variable is student satisfaction with the degree to which the instructor is available and

helpful. Students have indicated that they would like online instructors to be more available and accessible, including by way of instant messaging (Brinkerhoff & Koroghlanian, 2007). Students feel that instructor availability can be one of the positive aspects of online education (El Mansour & Mupinga, 2007). However, the effect of the availability of the instructor on students' overall perceptions of the instructor in the state of Connecticut has been unclear.

Finally, Hypothesis 6 also tests the relationship between student satisfaction with overall instructor effectiveness and an independent variable. Online courses are as effective as face-to-face courses (Singh, 2007). Modality of instruction should not affect a student's perception of course effectiveness. However, his or her perception of the course may affect satisfaction with the overall effectiveness of the instructor. This relationship is tested as Hypothesis 6.

The studies presented in this section have provided a theoretical frame for the BCC study. They address and support each of the research variables. In addition, justifications for the selection of the six independent variables were presented and grounded in the literature.

Methodology

While an understanding of the theoretical framework is necessary, a review of literature related to the research method also adds value to the study. A variety of methods can be used to study opinions, attitudes, and perceptions—including the satisfaction of students. However, surveys are commonly used in such studies (Bailey-Chen, 2007; Brown, 2007; Vieira, 2006). Pre-existing surveys as well as surveys developed by the researcher may be used to collect these data.

Surveys have also been used as an instrument for gathering data related to student satisfaction with distance education courses and programs (Abdel-Maksoud, 2007; Gallogly, 2005; Snoddy, 2007). More specifically, student satisfaction with distance learning effectiveness may be studied. For example, in an Iowa State University study, researcher Chang (2006) developed the Students' Perceived Interaction Survey to gather data for the study. The researcher then analyzed the data to understand if there were determinants of student satisfaction with course effectiveness. The findings supported interactions and perceptions of the course management system as determinants of satisfaction.

Distance education, however, is a broad term, and is defined as any formal learning that occurs when the instructor and student are geographically separated (Verduin & Clark, 1991). Notably, the majority of distance education no longer occurs via postal mail, radio, or broadcast television. Instead, a large portion of distance learning is communicated via the Internet—also referred to as online learning—or video (Palloff & Pratt, 2001).

Within the more narrowly defined field of online learning, surveys are commonly as a tool for gathering student satisfaction data. In a Texas Women's University study, Gallien (2005) collected data using an online survey. The researcher evaluated the effects of instructor feedback on student satisfaction in four online health courses. On the other hand, surveys may be used to analyze student satisfaction with a single course. In a Fielding Graduate University study, Bowen (2006) used nearly 2,000 faculty assessment surveys to analyze student perceptions of one online mathematics course.

Not all surveys are the same, however. In the present study, a specific type of survey—the Likert scale survey—is utilized. This type of instrument was selected because it is likely to be effective in revealing a person's feelings

(Waddington, 2000). Data gathered through a Likert-type survey is likely to effectively respond to the research question of the current study, which involves the feelings of students regarding satisfaction with online course and instructor effectiveness.

Likert surveys generally ask respondents to rate their feelings on a scale from *strongly agree* to *strongly disagree*. The scale commonly provides five options. However, more options will likely lead to greater reliability (Simon & Francis, 2001). Because a number can be associated with each of the options on the scale, the survey allows feelings to be quantified. For example, on a scale of 1 to 5, the number 1 can be assigned to *strongly disagree* and the number 5 can be assigned to *strongly agree*. Similarly, the numbers 2, 3, and 4 can correspond to varying degrees of agreement or disagreement. The number associated with the feelings of respondents can then be quantitatively analyzed.

Likert scale surveys can be used to quantitatively measure attitudes and perceptions, both within and outside of education. Ko (2007), Walker (2007), and Hicks (2007) used surveys with Likert scales to measure the perceptions of respondents within the subject areas of medicine,

education, and national defense, respectively. Greene (2007) and Taylor (2007) also used Likert surveys to research perceptions within the field of education. Conversely, Al-Kamali (2007), Hofmeister (2007), and Veneri (2007) used Likert-type surveys to measure attitudes. Al-Kamali utilized the instrument within education, while Hofmeister and Veneri used to tool to measure attitudes within health and medicine.

The manner in which the Likert survey has been utilized in prior studies resembles the manner in which it is used in the current study. There exists a diverse set of data collection instruments, including the survey. Similarly, there exist a diverse set of survey types. The Likert scale survey has been used within education and, more specifically, within online education. This type of survey has been commonly used to measure attitudes and perceptions, including student satisfaction.

Summary

Chapter 2 provided a review of literature relevant to the present study. The analyses of the status of online education and technological changes shed light on the study and its relationship to organizational change. Contemporary

technologies available for educational use include RSS, podcasts, blogs, and wikis. Similarly, the theoretical framework and analysis of contemporary concerns addressed the relationship between the study and the research variables. There exist concerns related to faculty, instructional design, evaluation methods, and student satisfaction. In addition, the analysis of change within Connecticut education speaks to the relationship between the BCC study and the research variables, educational change, and organizational and state leadership.

The methodological discussion provided an analysis of literature related to the research method used in the study. It included a discussion of the manner in which similar methods were used in previous studies. The BCC study lies at the intersection of several bodies of knowledge. Thus, the review of diverse literature presented in Chapter 2 served as a foundation for the study. A more thorough discussion of the methodology is presented in Chapter 3.

CHAPTER 3: RESEARCH METHOD

While the need exists to understand many aspects of online education more fully, the goal of this study was to respond to one problem. A focused study can increase the benefit to the field by allowing the researcher to explore a single topic in more detail. The results of the present study will likely equip Brown Community College, and possibly other schools, to meet the changing needs of students. The research method may affect the applicability of the results.

This chapter outlines the research methodology selected for the study. The quantitative study utilized a survey research design to gather data that were later analyzed. In addition, justifications for decisions related to the selected research method are provided. Information regarding the research design, sample, data collection instrument, data collection process, analysis of data, and the protection of participants is presented in the chapter.

Research Design

Research design encompasses all phases of research, including identifying a problem and reporting results (Creswell, 1998). In other words, the research design is a

comprehensive outline of the planned study (Singleton & Straits, 2005). Portions of the outline with respect to the current study, including the identification of a problem, have been presented throughout Chapters 1, 2, and 3. It is, however, necessary to specifically delineate the details of key components of the design of the study.

One of the fundamental aspects of research design is the research approach. A researcher may choose to use a quantitative, qualitative, or mixed method approach. Quantitative research usually involves the use of numbers and statistical methods, while qualitative research generally involves interviews and in-depth observations (Singleton & Straits, 2005). Because the data for the present study are reported in numbers and analyzed using statistical methods, the study represents a quantitative research study.

A mixed method approach incorporates the use of both quantitative and qualitative research design to address the research question or questions. The advantages of student interviews that utilize open-ended questions may add value to the general body of knowledge within online education. However, the use of this qualitative research method represents a separate and distinct study.

The isolated use of quantitative methods provides focus and definition to the study, and allows responses to be categorized based on student-selected numerical classifications rather than researcher-identified groups. Survey respondents have self-selected the most appropriate classifications using previously defined categories. While the use of qualitative methods to address the research question may be appropriate in a subsequent study, the present study employs quantitative methods.

Sample

An important aspect of research design is related to the sample of the research study. Because the sample is a subset of the population, it is necessary to define and introduce the population. The subsequent section, therefore, presents information regarding the population, the selection of the sample, and the characteristics of the sample. Characteristics of the sample include the sample size and demographic information.

Population

A population is a group of people or events about which a researcher may desire information and the

guidelines for choosing the members of the population should be appropriate (Singleton & Straits, 2005). It may not be feasible for the study to involve all online learners in the world. First, it may not be possible to identify all online learners. Second, funds may not permit a researcher or team of researchers to expend the effort necessary to attempt such a feat. Third, the limited amount of time set aside to complete the study may require researchers to identify a smaller subset of the entire group of online learners. In general, however, the BCC study provides information related to online learners.

The population to which a researcher would like to generalize can be distinguished from the population to which the researcher has access. The accessible population, which may be referred to as the study population, is the group to which the researcher has access and from which study participants are drawn (Trochim, 2001).

The study population in the current study is all online students at BCC, as each individual in the group has the opportunity to respond to survey questions. Thus, all online students at BCC are accessible and eligible to participate in the study. In addition, the results can be generalized to the subgroup of online learners at BCC.

The population of online learners can be defined using parameters of geographic location as well as type of educational institution. For example, the results of the study may be generalized to learners in the state of Connecticut, learners attending 2-year colleges throughout the United States, online learners of higher education, or any combination of these classifications. The present study, however, involves online learners in the state of Connecticut only. The reduction of participants from all online learners in the world to online learners within a single state of a single nation is advantageous. The study is more likely to adhere to time and budget constraints, and the results of the study are likely to be more homogeneous. In other words, results of the same study in another state may produce slightly different results, and the differences may be attributed to differing state policies or norms.

Conversely, if the population of a study is limited to a single state within the United States, it may be more reasonable to attribute changes in dependent variables to changes in independent variables. Changes in dependent variables are less likely to be caused by changes in variables other than the independent variables of the

study. For instance, changes in dependent variables could not be attributed to differences in state norms or policies in the current study involving students in the state of Connecticut only.

The population of the study could be further restricted to individuals who are taking online courses at one of the 2-year colleges in Connecticut, as is the case of the population in the current study. The more tightly defined population allows changes in the dependent variable to be even more closely associated with changes in independent variables. Though not all members of the population volunteer to participate, the present study is likely to produce results that are representative of the entire population because changes in dependent variables are less likely to be attributed to changes in extraneous variables.

Sample Selection

The process of tightly defining a population may lead to the identification of a sample. A sample is a group of individuals who are chosen by a researcher to be participants in a study (Trochim, 2001). The identification of a sample can be complex, as a population can be

subdivided in many ways. However, the smaller sample should be representative of the larger population. In other words, the results of a study based on a smaller sample of a population should have the capability of being generalized to the larger population (Trochim, 2001).

A sample is a subset of the accessible population, which is a subset of the entire population. However, in the present study, the sample is the same as the accessible population. All online learners at BCC are members of the accessible population. Each of these individuals also receives a request to complete a survey that is utilized in the present study, which indicates that he or she has been selected to participate in the study and is therefore a member of the sample group. The study benefits from the researcher’s ability to sample all students to which she has access. Both the sample and the accessible population are subsets of the population as a whole.

The selected sample group is appropriate for the current study because the sample is as large as possible given the constraint of the accessible population. Although it is not commonly possible, it is desirable for the sample group of a study and the population to which the results will be generalized to be identical (Singleton & Straits,

2005). If the number of members of a sample is similar to the number of members in the population, the results of the study will likely mirror that of the entire population. In the current study, the potential existed to collect data from all members of the accessible population, as all members received the survey.

The sampling frame lists the circumstances under which the sample is drawn (Singleton & Straits, 2005) and assists in defining the sample. The sampling frame of the present study is composed of the list of students enrolled in online courses at BCC during the Spring 2007 and Fall 2007 academic terms. In this instance, the sampling frame defines the accessible population as well as the sample.

The sample group is not necessarily equivalent to the group of individuals who participate in the study. Some of the individuals who have been selected as members of a sample group may opt not to participate or the researcher may be unable to contact all of the members of the sample group (Trochim, 2001). In the present study, all members of the sample group were contacted, which means that all individuals in the sample had the opportunity to participate in the study. However, not all BCC students who

received the opportunity to evaluate courses and instructors elected to do so.

Characteristics of the Sample

Sample selection is a significant phase in the research process, as the results from the sample group are more likely to be generalizable to the entire population if sample group members are selected appropriately. More specifically, the responses of individuals who ultimately participate in the study should be generalizable to the population. To ensure generalizability, the size of the sample should be appropriate (Singleton & Straits, 2005), as size is one of the characteristics of the sample.

Several factors should be taken into consideration in determining the most appropriate sample size with respect to a research study (Singleton & Straits, 2005). However, because all online students at BCC received the survey and were therefore members of the sample group, some of these factors are not applicable. One of the factors that should be taken into account in the current study is the number of breakdowns, or the number of ways in which the data can be categorized (Singleton & Straits).

As an example, results may be categorized according to age, race, and gender. In the present study, it is likely that the group of 20-year-old Hispanic males is smaller in number and less generalizable to the entire population. While the BCC data are subcategorized for analysis, the results of the responses as a whole are more generalizable than the results of smaller breakdown groups. To improve generalizability, data from all submitted survey responses—a minimum of 100 surveys for each of the three academic terms—were analyzed. The use of data from more than one semester also allows for triangulation, which is the use of unique approaches to verify findings and increase confidence (Singleton & Straits, 2005).

In addition to sample size, student demographics represent a characteristic of the sample of the current study. In the interest of confidentiality, the name and precise location of BCC cannot be disclosed. However, the college is centrally located in the state of Connecticut, and its student body is diverse with respect to age, gender, ethnic background, ability, and socioeconomic status. In addition, the college offers a number of face-to-face and online courses, typically offering online courses that are diverse in academic subject area.

Respondents of the BCC end-of-semester online course evaluation survey are students whose demographic composition reflects the diverse student body.

Survey Modifications

In certain instances, independent variables of a research study may be modified in order to compare results to the results of a group with unmodified independent variables. The modification, or treatment, can aid in determining the effects of the modification on individuals or situations (Singleton & Straits, 2005). The results of both groups can be compared, and if there are significant differences, the results may be attributed to the treatment.

The variables of the present study are obtained from BCC online course evaluation surveys and are not treated. However, it is important to note the manner in which the surveys were modified by the college to protect the identity of the college, faculty members, and students. Prior to releasing the data, the college removed the name of the institution, the names of the academic departments within the college, and the names of faculty members. In

addition, all comments written by students were removed, as they may have contained confidential information.

The name of each BCC department was replaced with a unique and generic identifier such as Department 1, Department 2, and Department 3. Similarly, the name of each faculty member was replaced with an identifier such as Instructor 1, Instructor 2, and Instructor 3. These identifiers allow for confidentiality of data without eliminating the ability of the researcher to categorize results according to department or faculty member name for analysis purposes.

Instrument

In gathering information related to the perceptions of students regarding online courses and instructors, it is important to ask students to communicate their perceptions. Survey research involves asking questions, typically in the form of a questionnaire or interview (Singleton & Straits, 2005; Trochim, 2001). Surveys are generally administered to large groups of individuals in order to measure the frequency of a specific response (Singleton & Straits).

A survey is therefore an appropriate instrument to be utilized as a data gathering tool for the present study.

Notably, the instrument allows for the measurement of the frequency of student responses. The measurement of the frequency of student responses in turn addresses the research questions, which involve the identification of influential factors affecting overall course effectiveness and overall instructor effectiveness at BCC. A response that appears more frequently may have a unique effect on the dependent variables of course and instructor effectiveness.

Surveys include questionnaires and interviews, each with distinct advantages and disadvantages. The questionnaire is the type of survey that has been selected for use in the present study. Although a relatively small fraction of recipients return questionnaires that are sent via postal mail, they are less expensive than alternative data collection methods, can be distributed to many individuals, and permit the respondent to complete the questionnaire at his or her leisure (Trochim, 2001).

Questionnaires can also be distributed electronically, which may allow the researcher to capitalize on the advantages of mailed questionnaires while minimizing disadvantages. For instance, a questionnaire that is sent to respondents electronically is not likely to be lost in

the postal mail system, misplaced by the respondent, or require as much time to complete. It is likely that the use of electronic questionnaires will increase the rate of response, thereby minimizing this disadvantage of mailed questionnaires.

Self-administered electronic questionnaires include those distributed using the Internet. E-mail surveys are sent in the body of an electronic message or as an attachment, while Web surveys are located on specific Internet pages (Singleton & Straits, 2005). The Brown Community College questionnaire is available on the Internet rather than sent via e-mail, and is categorized as a Web survey.

Validity and Reliability

There are various types of questionnaires that may be distributed via e-mail, an Internet page, and postal mail. A Likert-type questionnaire is used in the current study, as these types of surveys are likely to be effective in revealing a person’s feelings (Waddington, 2000). Data gathered through a Likert-type survey are more likely to effectively respond to the research questions of the

current study, which involve the feelings of students regarding course and instructor effectiveness.

The Likert-scale survey instrument used in the BCC study is both valid and reliable. An instrument is valid if it measures what it is designed to measure (Simon & Francis, 2001). Therefore, the Likert survey instrument used in the present study is valid for the purposes of gathering data related to students' feelings of satisfaction. Within the survey, more than one question addresses a specific concern. In other words, the survey is valid because a response to a certain question confirms the response to another question. In addition, validity is addressed during the regression procedure. If results indicate a high *t* value, then the corresponding coefficient is significant and valid. Furthermore, an analysis is performed to ensure that independent variables are not interdependent. The individual *t* values, which address the validity of the instrument, are presented in chapter 4.

Likert-type surveys generally ask respondents to rate their feelings on a scale from *strongly agree* to *strongly disagree*. The Likert scale commonly provides five interval options, while less options decrease reliability (Simon & Francis, 2001). In the interest of reliability, five

options are used in the BCC Likert-scale questionnaire. In addition, the reliability of the questionnaire is verified by way of its distribution each semester. Furthermore, the results of regression analyses involving smaller sets of data may be less reliable. Thus, the study involves data sets with at least 100 data points. The precise numbers of data points in each data set, which addresses reliability of the instrument, are provided in chapter 4.

List of Variables

The first set of variables used in the study includes:

Y1: Student satisfaction with overall course effectiveness

X1: Student satisfaction with the degree to which readings and assignments contribute to learning

X2: Student satisfaction with the degree to which threaded discussion contributes to learning

X3: Student satisfaction with instructor effectiveness

The relationship of $Y1 = a0 + a1X1 + a2X2 + a3X3$ is tested. In other words, this regression equation is measured and the results are presented.

The second set of variables used in the study includes:

Y2: Student satisfaction with overall instructor effectiveness

X4: Student satisfaction with the degree to which the instructor inspires interest in course material

X5: Student satisfaction with the degree to which the instructor is available and helpful

X6: Student satisfaction with course effectiveness

The relationship of $Y2 = b0 + b4X4 + b5X5 + b6X6$ is tested. In other words, this regression equation is measured and the results are presented.

Definition of Variables

The dependent variable is what the researcher would like to explain, and the independent variables are those that influence or explain the dependent variable (Singleton & Straits, 2005). In other words, independent variables are manipulated and changes are noted in dependent variables (Trochim, 2001). Therefore, independent variables may cause changes in dependent variables.

In the present study, there are two dependent variables: student satisfaction with overall course effectiveness and student satisfaction with overall instructor effectiveness. The independent variables of the

study include student satisfaction with the degree to which readings and assignments contribute to learning, student satisfaction with degree to which threaded discussion contributes to learning, student satisfaction with instructor effectiveness, student satisfaction with the degree to which the instructor inspires interest in course material, student satisfaction with the degree to which the instructor is available and helpful, and student satisfaction with course effectiveness. The list of variables used in the study was also presented in the previous section. Responses to survey questions that define both dependent and independent variables are provided in the form of a 5-point Likert scale. The effects of changes in independent variables on dependent variables are analyzed.

Data Collection

The online course evaluation form is distributed to BCC students by the college at the end of each academic term. The evaluation form appears as an icon on the home page of each online course approximately 5 weeks prior to the conclusion of the term. During the final 5 weeks of the semester, between one and three reminders are sent to

students in the form of an automatic popup that appears on a student's screen when he or she accesses the course Web site. These reminders also contain a direct link to the Web page containing the evaluation form.

Students who access the form are provided with the opportunity to respond to survey questions related to the effectiveness of the course and instructor. For each Likert-scale question, a corresponding drop down menu is provided. Each drop down menu contains five options, generally ranging from *strongly agree* to *strongly disagree*. The options corresponding to questions regarding overall course and instructor effectiveness range from *very high* to *extremely low*. The questionnaire contains 26 questions, 3 of which are open-ended. The online course evaluation form is the standard form that is available for use in nearly all online higher education courses offered in the state of Connecticut (see Appendix A).

Upon completing the survey, the student clicks the link to submit the form. The form is submitted confidentially and securely, and may only be submitted once. A student enrolled in more than one online course receives one opportunity to complete the survey for each course in which he or she is enrolled.

The data are then sent to the Office of the Academic Dean at BCC and, after filing the responses, the Office sends the aggregate and individual student results to the appropriate instructor. The original electronic survey responses are stored in the Office of the Academic Dean at BCC. The questionnaires that have been modified to ensure confidentiality during the research process are available upon request from the researcher.

In the present study, the pre-existing data stored by BCC are analyzed to identify relationships between dependent and independent variables. That is, the researcher performs secondary analysis (Trochim, 2001). According to Presner (as cited in Singleton & Straits, 2005), researchers are more likely to collect secondary data than primary data. Although the data are collected by the College, the researcher is responsible for the appropriate analysis and interpretation of the data.

Analysis

Statistics are commonly used and widely accepted in the social and behavioral sciences, and can add insight to virtually all social concerns (Schacht & Aspelmeier, 2005). Social sciences involve the study of societal groups,

including students, faculty, and administrators within education. The use of statistics in the quantitative BCC study is likely to provide insightful information regarding the societal group of online learners. Identifying the variables that have the largest effect on students' perceptions of overall course and instructor effectiveness represents an avenue for providing insight with respect to a social science issue.

While general statistics can be used to analyze social science issues, a specific type of statistical analysis may be more effective. Regression analysis seeks to identify an equation that would allow a person to predict the value of a dependent variable, and generally provides a great deal of information regarding a research problem (Cohen, Cohen, West, & Aiken, 2003). In the BCC study, a regression analysis is appropriate, as the relationships between dependent and independent variables can assist in determining a model for forecasting student satisfaction with overall course and instructor effectiveness. Forecasting student satisfaction can, in turn, allow college administrators to proactively address student needs.

Multiple regression analysis is appropriate for the current study. Multiple regression utilizes more than one independent variable to predict the value of a dependent variable (Kinnear & Gray, 1999). In the BCC study, student satisfaction with overall course effectiveness is determined by multiple independent variables. Similarly, student satisfaction with overall instructor effectiveness is determined by more than one independent variable.

One of the ways to conduct a multiple regression analysis is to use a stepwise approach, which involves identifying the appropriate regression equation by adding or removing variables from the equation (Howell, 1999). The independent variables are entered all at once in simultaneous multiple regression, while entered or removed one at a time in stepwise multiple regression (Kinnear & Gray, 1999). The stepwise approach in the present study allows the researcher to isolate the effects of each independent variable on the dependent variables of student satisfaction with overall course and instructor effectiveness.

In the forward selection approach, each independent variable is added to the equation and cannot later be removed. After each variable is added, the effects of the

independent variable on the dependent variable are noted. In backward selection, the equation initially contains all independent variables, and they are each removed if they do not meet certain conditions. The stepwise approach is best because it is a combination of the forward and backward methods (Kinnear & Gray, 1999), and therefore benefits from the advantages of each.

Stepwise multiple regression has been employed in several studies. More specifically, the method has been used in a number of educational studies seeking information related to students (Huurre, Aro, Rahkonen, & Komulainen, 2006; McCall, MacLaughlin, Fike, & Ruiz, 2007; Yenilmez, Sungur, & Tekkaya, 2006). The method is used in the present study, which mirrors its use in similar studies and allows for the benefits of the forward and backward methods to be realized.

The stepwise approach, however, is not without drawbacks. Because the approach can identify coincidental relationships between variables (Howell, 1999), the procedure is conducted three times in the BCC study—using the data collected from three distinct academic terms. The results that hold for both sets of data are accepted, while others are rejected.

An additional caution is related to the use of results of stepwise analyses. Stepwise procedures should be used to forecast values of the dependent variable rather than explain relationships between variables (Cohen et al., 2003). Consequently, the current study seeks to identify an equation that predicts student satisfaction with course and instructor effectiveness without attempting to determine the underlying cause for such relationships.

The analysis software that has been selected to support the researcher's stepwise analysis efforts in the current study is SPSS version 14.0, which was released in 2005. Although it is now used outside of the social sciences, it was initially created for social science numerical analyses (Wass, 2006). SPSS, which is a commonly used statistical analysis application (Goldman & McKenzie Jr., 2002), is therefore appropriate for the current study.

Perhaps most notably, SPSS is capable of performing a plethora of functions, including stepwise multiple regression analyses (Review, 2006). This type of analysis, and the SPSS computer application, are used in the current study to measure the regression equations, which are: $Y1 = a0 + a1X1 + a2X2 + a3X3$ and $Y2 = b0 + b4X4 + b5X5 + b6X6$. The application also allows the researcher to graphically

display relationships between dependent and independent variables, using bar and line graphs, which allows readers to more clearly visualize such relationships. The following section addresses the protection of participants in the study.

Protection of Participants

One of the ways to encourage the participation of volunteers in the current study is to ensure the privacy of participants. Students may divulge information related to grades, learning difficulties, and feelings toward instructors or administrators. Students should be reassured that they will remain anonymous, as they may be concerned that their response will affect grades, instructors will not treat them fairly, or administrators will request that they withdraw from the school or program. Anonymity is the property by which the student's identity remains unknown to all, including the researcher (Trochim, 2001). Each student at BCC submits the online course evaluation anonymously, and no identifying factors are stored.

Confidentiality, on the other hand, is a lesser standard. In this case, identifying information is withheld from all parties who are not directly involved with the

research study. For example, the names of the college, academic departments, and faculty members involved in the study remain confidential. Some of this information, however, is known to the researcher. To encourage participation, and at the request of the college, this information will remain confidential.

In addition to measures taken by BCC and the researcher to ensure the rights of participants, Walden University has taken additional measures. To protect human subjects, nearly all institutions have created an Institutional Review Board (IRB), and researchers must adhere to the ethical guidelines of the IRB (Simon & Francis, 2001). The Walden University IRB ensures that students and faculty adhere to federal guidelines as well as ethical guidelines put forth by the University. The current study was approved by the Walden IRB, and the approval number is 07-29-08-0141210.

Summary

The research methodology for the Brown Community College study was presented in Chapter 3. Detailed information and justifications were provided for related decisions. Specifically, the chapter has included an

outline of the research design, population, sample, instrument, data collection process, and process for the analysis of data. Chapter 4 includes the results of the study, while Chapter 5 presents conclusions.

CHAPTER 4: RESEARCH FINDINGS

Although there were only two dependent variables in the study, six sets of data were analyzed. Three sets of data were used with respect to each dependent variable. Data from the Fall 2006, Spring 2007, and Fall 2007 academic terms at Brown Community College were analyzed in relation to Y1 (student satisfaction with overall course effectiveness) as well as Y2 (student satisfaction with overall instructor effectiveness). In each regression test, alpha was 0.05, allowing for a 95% level of confidence. The numbers of responses collected and analyzed for each of the two dependent variables were: 140 responses in the Fall 2006 term, 150 responses in the Spring 2007 term, and 171 responses in the Fall 2007 term; these figures represent a return rate of 26%, 23%, and 24%, respectively. Each respondent elected to respond to all relevant questions. Therefore, the number of responses in the study of Y1 is equal to the number of responses in the study of Y2. The results and analyses of statistical figures are presented below.

Results – Course Effectiveness

Hypotheses 1, 2, and 3 involve the dependent variable Y1—student satisfaction with overall course effectiveness—and address the first research question, which is: What factors determine student satisfaction with overall course effectiveness at a community College in Connecticut?

Hypothesis 1

Student satisfaction with the degree to which readings and assignments contribute to learning (X1) was not an influential factor in determining student satisfaction with overall course effectiveness (Y1), as measured by a Likert-scale survey of students enrolled in online courses at a community college in Connecticut. The results showed that a significant positive relationship exists between X1 and Y1 using the Fall 2006, Spring 2007, and Fall 2007 data. Thus, the findings failed to support the null hypothesis, and supported the alternative hypothesis that student satisfaction with the degree to which readings and assignments contribute to learning (X1) is an influential factor in determining student satisfaction with overall course effectiveness (Y1).

Hypothesis 2

Student satisfaction with the degree to which threaded discussion contributes to learning (X2) was not an influential factor in determining student satisfaction with overall course effectiveness (Y1), as measured by a Likert-scale survey of students enrolled in online courses at a community college in Connecticut. The results showed that a significant positive relationship exists between X2 and Y1 using the Spring 2007 and Fall 2007 data. Consequently, the findings using the data for these two academic terms failed to support the null hypothesis, and supported the alternative hypothesis that satisfaction with the degree to which threaded discussion contributes to learning (X2) is an influential factor in determining student satisfaction with overall course effectiveness (Y1). However, the results showed that there is no significant relationship between X2 and Y1 using the Fall 2006 data.

Hypothesis 3

Student satisfaction with overall instructor effectiveness (X3) was not an influential factor in determining student satisfaction with overall course effectiveness (Y1), as measured by a Likert-scale survey of

students enrolled in online courses at a community college in Connecticut. The results showed that a significant positive relationship exists between X3 and Y1 using the Fall 2006, Spring 2007, and Fall 2007 data. For this reason, the findings failed to support the null hypothesis, and supported the alternative hypothesis that student satisfaction with overall instructor effectiveness (X3) is an influential factor in determining student satisfaction with overall course effectiveness (Y1).

The regression analysis results related to the study of student satisfaction with course effectiveness are presented in Tables 1, 2, and 3. The first group of variables in the study consists of:

Y1: Student satisfaction with overall course effectiveness

X1: Student satisfaction with the degree to which readings and assignments contribute to learning

X2: Student satisfaction with the degree to which threaded discussion contributes to learning

X3: Student satisfaction with instructor effectiveness

Table 1

Course Effectiveness, Fall 2006

	Coef.	*t*	Sig.	VIF
Constant	-0.073	-0.855	0.394	
X3	0.597	12.741	0.000	1.371
X1	0.581	9.937	0.000	1.371

Note. F = 269.292, Sig. = 0.000, R Squared = 0.797, N = 140

Discussion – Table 1

Table 1 presents the regression analysis results for Y1 (student satisfaction with overall course effectiveness) at BCC using the Fall 2006 data set. The independent variables that have significant relationships with Y1 include X1 (student satisfaction with the degree to which readings and assignments contribute to learning) and X3 (student satisfaction with instructor effectiveness). A one unit increase in Y1 is related to a 0.581 increase in X1 and a 0.597 increase in X3, holding all else constant. Both coefficients are significant, as evidenced by the high *t* values associated with each independent variable (Table 1). The related levels of significance (alpha values) are nearly zero. They are 0.000, when rounded to the nearest

thousandths place. Thus, the levels of confidence are high, and they support the findings.

The relationship between Y1 and the two significant independent variables can be described using the following regression equation: Y1 = -0.073 + 0.581 X1 + 0.597 X3. The corresponding *F* value is sufficiently large. In other words, the line represented by the regression equation is a good fit for the data. The value of *R* squared is also sufficiently large. The corresponding VIF values (Table 1) are sufficiently small to rule out interdependence between the independent variables.

The Fall 2006 data confirmed that X1 and X3 are correlated with the dependent variable. Student satisfaction with the degree to which readings and assignments contribute to learning has a significant effect on student satisfaction with overall course effectiveness. Similarly, student satisfaction with instructor effectiveness has a significant effect on student satisfaction with overall course effectiveness. Both X1 and X3 are positively related to the dependent variable. An increase in student satisfaction related to instructor effectiveness, or readings and assignments, will likely

lead to an increase in student satisfaction with the effectiveness of the course.

Using the Fall 2006 data, X2 was excluded from the list of independent variables with a significant effect on Y1 (Table 1). Thus, student satisfaction with the degree to which threaded discussion contributes to learning does not have a significant effect on student satisfaction with overall course effectiveness. The variable X2 does not have a strong relationship with Y1, as compared to the other independent variables in the regression test. However, the Pearson correlation value for X2 is 0.70, which is slightly less than the values for X1 (0.75) and X3 (0.81). Therefore, although X2 does not have a strong relationship with Y1, there exists a moderate relationship between X2 and Y1. In other words, student satisfaction with the degree to which threaded discussion contributes to learning has a moderate effect on student satisfaction with overall course effectiveness using the Fall 2006 data.

Table 2

Course Effectiveness, Spring 2007

	Coef.	*t*	Sig.	VIF
Constant	0.389	3.552	0.001	
X3	0.510	9.639	0.000	1.952
X2	0.131	2.447	0.016	1.545
X1	0.176	2.204	0.029	1.624

Note. *F* = 99.925, Sig. = 0.000, *R* Squared = 0.672, *N* = 150

Discussion – Table 2

Table 2 presents the regression analysis results for Y1 (student satisfaction with overall course effectiveness) at BCC using the Spring 2007 data set. All three independent variables have significant relationships with Y1, and the relationships can be described using the coefficients. With all else constant, a one unit increase in Y1 results in increases in X1, X2, and X3 of 0.176, 0.131, and 0.510, respectively. The *t* values are sufficiently large to indicate that the coefficients are significant (Table 2). In addition, the alpha values are nearly zero. Thus, the corresponding confidence levels are high.

The relationship between Y1 and the three significant independent variables can be described using a regression equation: Y1 = 0.389 + 0.176 X1 + 0.131 X2 + 0.510 X3. The related *F* value of 99.925 is large. Therefore, the regression equation is a good fit for the data. *R* squared is sufficiently large, and the VIF values are sufficiently small to reject the likelihood of a multicollinearity problem.

The Fall 2006 regression test (Table 1) revealed more confident results than the Spring 2007 test (Table 2). As compared to the Spring 2007 results, the Fall 2006 results showed higher *t* values, slightly lower alpha values, and lower VIF values. This means that in the case of the Fall 2006 results, the coefficients are more significant, the confidence levels are higher, and the likelihood of multicollinearity is lower. In addition, the Fall 2006 results demonstrate a larger change in independent variables for each one unit change in Y1.

The regression analysis of the Spring 2007 data revealed significant relationships between Y1 and each of the three independent variables. Student satisfaction with the degree to which readings and assignments contribute to learning, student satisfaction with the degree to which

threaded discussion contributes to learning, and student satisfaction with instructor effectiveness are each influential factors in determining student satisfaction with overall course effectiveness. Each independent variable shares a positive relationship with the dependent variable. Thus, an increase in student satisfaction with respect to readings and assignments, threaded discussion, or instructor effectiveness is expected to lead to an increase in student satisfaction with the effectiveness of the course.

Table 3

Course Effectiveness, Fall 2007

	Coef.	*t*	Sig.	VIF
Constant	0.114	1.249	0.213	
X3	0.451	9.084	0.000	2.236
X2	0.248	5.397	0.000	1.922
X1	0.296	4.602	0.000	1.771

Note. *F* = 190.541, Sig. = 0.000, *R* Squared = 0.774, *N* = 171

Discussion – Table 3

The above table lists the regression analysis results for Y1 (student satisfaction with overall course

effectiveness) at BCC using the Fall 2007 data set. The independent variables that have significant relationships with Y1 are X1, X2, and X3. A one unit increase in Y1 is related to a 0.296 increase in X1, a 0.248 increase in X2, and a 0.451 increase in X3, ceteris paribus. The large *t* values signify that the aforementioned coefficients are sufficiently significant. The associated alpha values are 0.000 when rounded to the nearest thousandths place. Hence, the confidence levels are high.

The relationship between Y1 and the three significant independent variables can be described using a specific regression equation: Y1 = 0.114 + 0.296 X1 + 0.248 X2 + 0.451 X3. The line represented by the equation is a good fit for the data based on the high *F* value (Table 3), and the *R* squared value is sufficiently large. The VIF value associated with X3, of 2.236, is larger than every other VIF value presented in Tables 1, 2, and 3. Nevertheless, all VIF values in Table 3 are small enough to assert that interdependence amongst the independent variables is unlikely.

The results of the Fall 2007 regression test confirm the results of the Spring 2007 test. With respect to the Fall 2007 data, there are significant relationships between

Y1 and each independent variable. Student satisfaction with overall course effectiveness is determined, in part, by student satisfaction with the degree to which readings and assignments contribute to learning, student satisfaction with the degree to which threaded discussion contributes to learning, and student satisfaction with instructor effectiveness. Because there is a positive relationship between the dependent variable and each independent variable, a positive change in student satisfaction concerning readings and assignments, threaded discussion, or instructor effectiveness is projected to lead to an increase in student satisfaction with the overall effectiveness of the course.

For all three semesters, the coefficients for X3 are larger than the coefficients for X1 and X2. An increase in Y1 will lead to an increase in X3 that is proportionately larger than any increase in the remaining two variables. In other words, a change in Y1 will lead to a relatively large change in X3. Alternatively, the coefficients for X2 are smaller than those of the other independent variables for the two terms in which X2 was included in the regression equation. In summation, given an increase in student satisfaction with overall course effectiveness, student

satisfaction with instructor effectiveness is likely to increase the most while student satisfaction with the degree to which threaded discussion contributes to learning is likely to increase the least.

Results – Instructor Effectiveness

Hypotheses 4, 5, and 6 involve the dependent variable Y2—student satisfaction with overall instructor effectiveness—and address the second research question, which is: What factors determine student satisfaction with overall instructor effectiveness at a community College in Connecticut?

Hypothesis 4

Student satisfaction with the degree to which the instructor inspires interest in course material (X4) is not an influential factor in determining student satisfaction with overall instructor effectiveness (Y2), as measured by a Likert-scale survey of students enrolled in online courses at a community college in Connecticut. The results show that a significant positive relationship exists between X4 and Y2 using the Fall 2006, Spring 2007, and Fall 2007 data. Therefore, the findings fail to support the

null hypothesis, and support the alternative hypothesis that student satisfaction with the degree to which the instructor inspires interest in course material (X4) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

Hypothesis 5

Student satisfaction with the degree to which the instructor is available and helpful (X5) is not an influential factor in determining student satisfaction with overall instructor effectiveness (Y2), as measured by a Likert-scale survey of students enrolled in online courses at a community college in Connecticut. The results show that a significant positive relationship exists between X5 and Y2 using the Fall 2006, Spring 2007, and Fall 2007 data. Consequently, the findings fail to support the null hypothesis, and support the alternative hypothesis that student satisfaction with the degree to which the instructor is available and helpful (X5) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

Hypothesis 6

Student satisfaction with overall course effectiveness (X6) is not an influential factor in determining student satisfaction with overall instructor effectiveness (Y2), as measured by a Likert-scale survey of students enrolled in online courses at a community college in Connecticut. The results show that a significant positive relationship exists between X6 and Y2 using the Fall 2006, Spring 2007, and Fall 2007 data. Therefore, the findings fail to support the null hypothesis, and support the alternative hypothesis that student satisfaction with overall course effectiveness (X6) is an influential factor in determining student satisfaction with overall instructor effectiveness (Y2).

The regression analysis results related to the study of student satisfaction with instructor effectiveness are presented in Tables 4, 5, and 6. The second set of variables in the study comprised the following:

Y2: Student satisfaction with overall instructor effectiveness

X4: Student satisfaction with the degree to which the instructor inspires interest in course material

X5: Student satisfaction with the degree to which the instructor is available and helpful

X6: Student satisfaction with course effectiveness

Table 4

Instructor Effectiveness, Fall 2006

	Coef.	*t*	Sig.	VIF
Constant	0.062	0.852	0.396	
X4	0.358	5.664	0.000	3.593
X5	0.352	5.615	0.000	2.630
X6	0.231	3.682	0.000	3.085

Note. *F* = 195.659, Sig. = 0.000, *R* Squared = 0.812, *N* = 140

Discussion – Table 4

Table 4 presents the regression analysis results for Y2 (student satisfaction with overall instructor effectiveness) at BCC using the Fall 2006 data set. All three independent variables have significant relationships with Y2, and the relationships can be described using the coefficients. With all else constant, a one unit increase in Y2 results in increases in X4, X5, and X6 of 0.358, 0.352, and 0.231, respectively. The *t* values are sufficiently large to indicate that the coefficients are

significant (Table 4). In addition, the alpha values are 0.000. Thus, the corresponding confidence levels are high.

The relationship between Y2 and the three significant independent variables can be described using the following regression equation: Y2 = 0.062 + 0.358 X4 + 0.352 X5 + 0.231 X6. The related *F* value of 195.659 is large. Therefore, the regression equation is a good fit for the data. In addition, *R* squared is sufficiently large, and the VIF values are high. In fact, the VIF value for X4, of 3.593, is the largest of all VIF values presented in the study. This could denote a multicollinearity concern with respect to X4, which is student satisfaction with the degree to which the instructor inspires interest in course material, as well as the two additional independent variables.

Overall, the regression test of the Fall 2006 data revealed significant relationships between Y2 and each of the independent variables. Student satisfaction with the degree to which the instructor inspires interest in course material, student satisfaction with the degree to which the instructor is available and helpful, and student satisfaction with course effectiveness are influential factors in ascertaining student satisfaction with overall

course effectiveness. Each independent variable maintains a positive relationship with the dependent variable. As a result, an increase in student satisfaction related to instructor inspiration, instructor availability and helpfulness, or course effectiveness is expected to lead to an increase in student satisfaction with the effectiveness of the instructor.

Table 5

Instructor Effectiveness, Spring 2007

	Coef.	*t*	Sig.	VIF
Constant	-0.238	-3.077	0.002	
X4	0.391	8.193	0.000	2.700
X6	0.440	8.534	0.000	1.910
X5	0.302	6.562	0.000	2.315

Note. F = 324.816, Sig. = 0.000, R Squared = 0.870, N = 150

Discussion – Table 5

The above table lists the regression analysis results for Y2 (student satisfaction with overall instructor effectiveness) at BCC using the Spring 2007 data set. The independent variables that have significant relationships with Y2 include X4, X5, and X6. A one unit increase in Y2

is related to a 0.391 increase in X4, a 0.302 increase in X5, and a 0.440 increase in X6, holding all else constant. All coefficients are significant, as evidenced by the high *t* values associated with each independent variable (Table 5). The related levels of significance (alpha values) are nearly zero. They are 0.000, when rounded to the nearest thousandths place. Therefore, the levels of confidence are high, and they support the findings.

The relationship between Y2 and the three significant independent variables can be described using the following regression equation: Y2 = -0.238 + 0.391 X4 + 0.302 X5 + 0.440 X6. The corresponding *F* value is sufficiently large. The line represented by the regression equation is a good fit for the data. The value of *R* squared is also sufficiently large. The corresponding VIF values (Table 5) reveal mixed results. The VIF values for X5 and X6 are likely small enough to exclude interdependence between the independent variables as a concern. However, the VIF value for X4, of 2.700, could be an indication of multicollinearity.

The Spring 2007 regression test (Table 5) revealed more confident results than the Fall 2006 test (Table 4). As compared to the Fall 2006 results, the Spring 2007

results showed similar alpha values, higher *t* values, and lower VIF values. For this reason, with respect to the Spring 2007 results, the coefficients are more significant and independent variables are less likely to be interdependent. Also, the Spring 2007 results demonstrate a larger change in X4, X5, and X6 for every one unit change in Y2.

The Spring 2007 data confirmed that X4, X5, and X6 are correlated with the dependent variable. Student satisfaction with the degree to which the instructor is available and helpful has a significant effect on student satisfaction with instructor effectiveness. In the same manner, student satisfaction with the degree to which the instructor inspires interest in course material and student satisfaction with course effectiveness have a significant effect on student satisfaction with overall instructor effectiveness. The independent variables X4, X5, and X6 are positively related to Y2. An increase in student satisfaction concerning instructor availability and helpfulness, instructor inspiration, or course effectiveness is likely to lead to an increase in student satisfaction with instructor effectiveness.
the effectiveness of the course.

Table 6

Instructor Effectiveness, Fall 2007

	Coef.	*t*	Sig.	VIF
Constant	-0.152	-2.118	0.036	
X4	0.440	8.894	0.000	2.941
X6	0.425	9.612	0.000	2.118
X5	0.239	4.740	0.000	3.214

Note. F = 386.872, Sig. = 0.000, R Squared = 0.874, N = 171

Discussion – Table 6

Table 6 presents the regression analysis results for Y2 (student satisfaction with overall instructor effectiveness) at BCC using the Fall 2007 data set. The independent variables that have significant relationships with Y2 are X4, X5, and X6. A one unit increase in Y2 is related to a 0.440 increase in X4, a 0.239 increase in X5, and a 0.425 increase in X6, ceteris paribus. The large t values signify that the coefficients are sufficiently significant. The associated alpha values are 0.000 when rounded to the nearest thousandths place, which indicate that the confidence levels are high.

The relationship between Y2 and the three significant independent variables can be described using a regression

equation: Y2 = -0.152 + .440 X4 + 0.239 X5 + 0.425 X6. The *F* value of 386.872 is the highest of all six *F* values included in the study. Therefore, the line represented by the equation is a considerably good fit for the data, and the *F* value supports the model. The model also has a value for *R* squared that is larger than each of the five *R* squared values presented in the study. The VIF value for X6 is sufficiently small enough to assert that interdependence with other independent variables is unlikely. However, the higher VIF values for X4 and X5 could indicate a multicollinearity problem. Although the VIF values in Tables 4 and 6 could indicate multicollinearity amongst independent variables, the results presented in Table 5 show less of a concern in this area. Consequently, the relationship between dependent and independent variables holds, and is based primarily on the results presented in Table 5.

The regression results of the Fall 2007 analysis confirm the results of the Fall 2006 and Spring 2007 analyses. Considering the results using the Fall 2007 data set, there are significant relationships between Y2 and each independent variable. Student satisfaction with overall instructor effectiveness is partially determined by

student satisfaction with the degree to which the instructor inspires interest in course material, student satisfaction with the degree to which the instructor is available and helpful, and student satisfaction with course effectiveness. Because there is a positive relationship between the dependent variable and each independent variable, a positive change in student satisfaction with respect to instructor inspiration, instructor availability and helpfulness, or course effectiveness is expected to lead to an increase in student satisfaction with overall instructor effectiveness.

As a whole, the regression findings in the study of student satisfaction with instructor effectiveness present mixed results with respect to the highest and lowest coefficients for all three data sets. For two of the three semesters, X5 has the lowest coefficients, while X6 has the lowest coefficient for one semester. Similarly, X4 has the highest coefficients for two semesters, and X6 has the highest coefficient for the remaining semester. The findings show varied results for each semester, considering the amount of change in independent variables given a one unit change in the dependent variable. However, the results were conclusive that all three independent variables

positively affected student satisfaction with overall instructor effectiveness.

Summary

Chapter 4 presented the findings for each hypothesis, the regression results in table form, and analyses of the results. In general, the findings did not support the null hypotheses, and supported the six alternative hypotheses. Although the findings showed no significant relationship between student satisfaction with the degree to which threaded discussion contributed to learning and student satisfaction with overall course effectiveness during the Fall 2006 semester, there was a moderate relationship between the two variables in the Fall 2006 term, and a significant relationship between the two variables in the two more recent academic terms tested.

In response to the first research question, the findings supported that student satisfaction with instructor effectiveness, the degree to which readings and assignments contribute to learning, and the degree to which threaded discussion contributes to learning determine student satisfaction with overall course effectiveness at BCC. Similarly, in response to the second research

question, the findings supported that student satisfaction with course effectiveness, the degree to which the instructor inspires interest in course material, and the degree to which the instructor is available and helpful determine student satisfaction with overall instructor effectiveness at BCC.

The findings presented in Chapter 4 are central to the discussion in the subsequent chapter. Chapter 5 contains an interpretation of the findings, including a discussion of the relationship between the study and the current body of knowledge. In addition, a discussion of social implications, recommendations for action, and recommendations for further study are provided in Chapter 5.

CHAPTER 5: CONCLUSIONS

The purpose of this study was to identify factors that are influential in determining student satisfaction with overall course effectiveness and overall instructor effectiveness at Brown Community College in Connecticut. Course evaluation data were used to analyze relationships between three independent variables and student satisfaction with course effectiveness. The data set was also used to analyze relationships between a unique set of three independent variables and student satisfaction with instructor effectiveness. These relationships were measured using a stepwise regression analysis.

The following variables were found to have a significant effect on student satisfaction with instructor effectiveness: student satisfaction with the degree to which the instructor inspires interest in course material, the degree to which the instructor is available and helpful, and course effectiveness. Similarly, the following factors were determined to have a significant effect on student satisfaction with course effectiveness: student satisfaction with the degree to which readings and assignments contribute to learning, the degree to which threaded discussion contributes to learning, and instructor

effectiveness. Five of the six relationships were found to be significant for all three academic terms. However, the relationship between student satisfaction with course effectiveness and student satisfaction with the degree to which threaded discussion contributes to learning was found to be significant only for the two more recent academic terms. The relationship was found to be moderate, or less than significant, during the Fall 2006 semester. The subsequent section relates the findings to a larger body of literature, including the theoretical framework presented in Chapter 1.

Interpretation of Findings

The study addressed the first research question, which has to do with the identification of factors that influence student satisfaction with overall course effectiveness. Although the field of online education is relatively new, the study addressed assertions and developing theories put forth by contributors to the field. For example, Lester (2007) asserted that assignments are one of the three most important aspects of a course. The BCC study supported the assertion, as student satisfaction with the degree to which readings and assignments contribute to learning was found

to have a significant effect on student satisfaction with overall course effectiveness. The alternative hypothesis H_1 for Hypothesis 1 was accepted. The precise effect of readings, as distinguished from assignments, was not determined in the study.

Hypothesis 2 also addressed the first research question. The related alternative hypothesis H_1 was accepted based on the results of two of the three data sets. Student satisfaction with the degree to which threaded discussion contributes to learning was determined to have a significant effect on student satisfaction with overall course effectiveness for two of the three semesters tested. Groth (2008) supported the use of discussion boards in online education, while El Mansour and Mupinga (2007) claimed that students supported their use in the online classroom. The study confirmed that threaded discussion is an important component of online learning.

Brinkerhoff and Koroghlanian (2007) maintained that student learning may be affected by the instructional design of an online course. Because instructors may have some or all of the responsibility related to instructional design of an online course, the effect of student satisfaction with overall instructor effectiveness on

student satisfaction with overall course effectiveness was tested. The study supported this relationship, and added clarification regarding the first research question.

While Hypotheses 1, 2, and 3 addressed the first research question, Hypotheses 4, 5, and 6 responded to the second research question related to student satisfaction with instructor effectiveness. Because gaming simulations (Ask Naj, 2005) and diverse teaching methods (Gaytan & McEwen, 2007) may motivate or inspire students to learn, the relationship between student satisfaction with the degree to which the instructor inspires interest in course material and student satisfaction with overall instructor effectiveness was examined. The former was found to have a positive effect on the latter, and the alternative hypothesis H_1 for Hypothesis 4 was accepted. The study supported the use of teaching methods that inspire student interest.

The study also supported the value of instructors who are available and helpful. Brinkerhoff and Koroghlanian (2007) claimed that online students would like instructors who are more available and helpful, including via instant messaging. El Mansour and Mupinga (2007) claimed that students perceive the availability of the instructor to be

one of the benefits of online learning. The study addressed both claims, as the findings supported that student satisfaction with overall instructor effectiveness increases when student satisfaction with the degree to which the instructor is available and helpful increases. The study did not test the relationship between student satisfaction with instructor availability and student satisfaction with the overall course.

Hypothesis 6 was tested, and was the third and final test related to the second research question. According to Singh (2007), face-to-face and online courses were equally effective. The mode of course instruction should not affect student perception of course effectiveness. However, the body of knowledge concerning the effect of student perception of course effectiveness on student satisfaction with instructor effectiveness was lacking prior to the BCC study. The findings supported the positive effect of student satisfaction with overall course effectiveness on student satisfaction with overall instructor effectiveness. Based on the findings, recommendations to academic leaders are offered in the next section.

Management Recommendations

Leadership involves inspiring others to reach goals, while management is more encompassing and generally involves both leadership and administrative roles (Pinto, 2007). Higher education administrators are academic leaders and managers. The decisions they make concerning the management of online education can have a positive or negative effect on faculty, staff, students, and the community at large. Based on the experience of the researcher, perhaps the results of this study will allow college and university administrators to make more informed decisions regarding the type of online courses offered, the number of online course offerings, online course structure and design, online class size, the number of faculty members teaching online courses, online instruction employment offers to new faculty members, the reassignment of current faculty members to teach online courses, or the portion of the financial budget set aside for online educational efforts. Although the study did not fully explore and address each of these relationships, the researcher may be able to propose that management take the following steps to action:

1. Evaluate the current types of online courses

offered and make improvements to courses in which students are not satisfied with readings and assignments, discussion, or instructor effectiveness.

2. Increase the number of online courses in which students are satisfied with readings and assignments, discussion, and instructor effectiveness.

3. Design online courses that emphasize improvements to readings, assignments, and threaded discussion based on feedback from students.

4. Ensure smaller online class sizes which, based on the researcher’s experience, may increase student satisfaction with the degree to which the instructor is available and helpful, and may improve the instructor’s ability to manage the discussion forum.

5. Increase the number of online courses taught by specific faculty members if students are satisfied with the availability and helpfulness of the instructor, the degree to which the instructor inspires interest in course material, and the overall effectiveness of the instructor.

6. Reserve a portion of the financial budget for faculty training that emphasizes the importance of the availability and helpfulness of instructors and the value of inspiring student interest in course material.

7. Reserve a portion of the financial budget for student training related to ways in which students can maximize the benefits of readings, assignments, and threaded discussion.

8. Reserve a portion of the financial budget for technical support involving readings, assignments, discussion, and communication. Instructors are more likely to be available and helpful if technical support and faculty training supports the use of communication tools, including e-mail and instant chat.

Based on the findings, it is also recommended that instructors seek ways to improve readings, assignments, and discussion in the online classroom. In addition, instructors should identify ways to become more available to students, and seek to inspire students to become more interested in the material. Similarly, students should make enrollment decisions that would increase the likelihood of student satisfaction, and select instructors who are more likely to communicate regularly and inspire interest in the course material.

The implementation of recommendations can be prioritized in a variety of ways. Because the results with respect to course effectiveness showed lower VIF values and

therefore more dependable results, it is recommended that management begin to make improvements by focusing efforts and resources on the implementation of changes related to student satisfaction with the degree to which readings and assignments contribute to learning as well as student satisfaction with the degree to which threaded discussion contributes to learning. These changes can be followed by changes based on additional recommendations.

In an effort to support the above steps to action, a copy of the study will be sent to BCC. Additional copies may be sent to other colleges and universities in the state of Connecticut, the Connecticut Distance Learning Consortium, and the chancellor of the Connecticut Community Colleges. Because there is a positive relationship between student satisfaction and learning in the online classroom (Sahin, 2007), it is important to address the factors that influence students' satisfaction with online courses and instructors. The social implications of the findings are presented in the next section.

Social Implications

Based on the results of this study, an increase in… student satisfaction with readings and assignments,

threaded discussion, and instructor effectiveness… will lead to an increase in student satisfaction with course effectiveness. In addition, an increase in… student satisfaction with the degree to which the instructor inspires interest in course material, the degree to which the instructor is available and helpful, and course effectiveness… will lead to an increase in student satisfaction with instructor effectiveness. If academic leaders respond by taking the aforementioned recommended actions, the results will likely include improvements in college monetary spending, student satisfaction, student learning, and course and instructor effectiveness.

At the individual level, students and instructors will be able to make more informed decisions as a result of the findings. At the organizational level, the findings will allow college administrators to improve the online educational system. These improvements are likely to positively affect college communities as well as society as a whole. The increase in the quality of online education will likely produce graduates who are well equipped to make significant positive contributions to society. In other words, the results of the study will inspire positive social change.

Recommendations for Further Study

The results of the study, which addressed two research questions, generated additional questions and need for clarification. For instance, the results of the Fall 2006 data indicated that the relationship between student satisfaction with the degree to which threaded discussion contributes to learning and student satisfaction with course effectiveness is less than significant, or moderate. The analysis of data from the two subsequent semesters revealed a significant relationship between the two factors. This could indicate that student satisfaction with the degree to which threaded discussion contributes to learning is becoming increasingly important in the determination of student satisfaction with course effectiveness. Further study is recommended.

The surveys used to gather data for the current study were administered by BCC, and provided students with the opportunity to respond to Likert-type questions as well as open-ended questions. The researcher did not analyze responses to open-ended questions, as this was outside of the scope of the study. However, a follow-up study involving an analysis of these data is recommended. This type of study may help to explain why students experience

varying levels of satisfaction or dissatisfaction with online courses and instructors.

In the current study, two of the independent variables involved a combination of factors, which were jointly tested. For example, X1 involves the degree to which both readings and assignments contribute to learning. The effect of the degree to which readings contribute to learning on student satisfaction with course effectiveness is uncertain. Similarly, the relationship between the degree to which assignments contribute to learning and student satisfaction with course effectiveness is unclear.

In addition, X5 includes the degree to which the instructor is both available and helpful. The relationship between student satisfaction with the degree to which the instructor is available and student satisfaction with instructor effectiveness is uncertain. Likewise, the relationship between student satisfaction with the degree to which the instructor is helpful and student satisfaction with instructor effectiveness is unclear. Additional research concerning X1 and X5 is recommended.

Alternative analyses using similar data sets are also recommended. First, regression tests can be performed using variables involving the remaining Likert-type questions in

the BCC course evaluation. Second, in order to improve generalizability, the analysis can be performed using data from other colleges and universities within Connecticut, including academic institutions similar to BCC. Finally, course evaluation data from outside of the state of Connecticut can be analyzed. The results can then be compared to the results of the current study.

Concluding Remarks

Chapter 1 provided an overview of the study, and Chapter 2 set the foundation of the study by way of a literary review. The details of the research method were provided in Chapter 3, while Chapter 4 presented the findings. Chapter 5 provided conclusions, including the interpretation of findings and recommendations to management. The study has expanded the body of knowledge related to online learning and the management of online education. Improvements based on this study will likely cause positive change in society by way of an increase in the quality of education and, therefore, the quality of contributors to society. For these reasons, this study was successful.

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APPENDIX: ONLINE COURSE EVALUATION

Online Course Evaluation

We are dedicated to creating excellent distance learning courses. Your responses to the following questions will help us improve our course design, our instruction, and the type of services we are able to offer our online students.

We appreciate your filling out this short survey (26 questions) and sending it by clicking on the **Submit** button at the end of the form. Most of the questions only require you to click on an answer, but there is room for your comments at the end.

Your survey is anonymous and confidential. We do not use any technical or non-technical means of tracking who responds to this survey.

Proof of Completion: After you click submit, you will have the opportunity of receiving a receipt indicating that you completed the survey. **You must enter YOUR e-mail address - the receipt will indicate that a survey was completed by the person whose e-mail is submitted, but it will not have your name (since the survey is anonymous). You can then**

forward your receipt to anyone who is asking for "proof" of your completing the survey.

TO START: *Please select the current semester. Then select the institution where you took the course. Use the drop down menu to select the name of the course (only courses taught during the semester at the institution you indicated will show up). Your instructor should fill in automatically. If it does not do so, please add the correct name. Please make sure the course and instructor are the correct ones.* ***If you do not complete this section, when you click on "submit you will get a message that the information is incomplete and you will need to re-enter all the data on the form.***

Semester: -First Select The Semester-

Institution: -Next Select Your Institution-

Name of Course -Then Select Your Course-

Name of Instructor

Please use the Tab key or your mouse to move from question to question. Do NOT use the Enter key.

Please respond to the following statements by selecting the choice that corresponds to your experience in the online course. *Please indicate your level of agreement with each of these statements:*

1. The objectives/learning outcomes for each part of the course were clear. -Please Select-

2. The required tests, quizzes, projects, papers, and reports accurately measured my attainment of these learning outcomes. -Please Select-

3. The course was well organized. -Please Select-

4. The required reading and assignments contributed to my learning. -Please Select-

5. The threaded discussion/course conference contributed to my learning. -Please Select-

6. The instructor inspired interest in the course material. -Please Select-

7. The instructor provided timely feedback. -Please Select-

8. The instructor's feedback was clear and useful. -Please Select-

9. The instructor treated students with respect. -Please Select-

10. The instructor provided opportunities for students to learn from each other. -Please Select-

11. The instructor was available and helpful. -Please Select-

12. Overall I would rate the effectiveness of the instructor as? -Please Select-

13. Overall I would rate the effectiveness of the course as? -Please Select-

Please think about your participation in the class and your online experience:

14. I invested enough time and energy in the course to meet/exceed course requirements -Please Select-

15. I participated actively and contributed thoughtfully to the class conference/threaded discussion -Please Select-

16. On average how many hours a week did you spend on the course? 0

17. On average how many times a week did you log onto your course? 0

18. How many total courses (online and in a classroom) did you take this semester? 0

19. How many total online courses have you taken including this semester (term)? 0

20. Are you taking this course at the same institution where you are -Please Select-

enrolled in a degree program?

21. Are you enrolled in a degree program offered totally online? -Please Select-

22. How did you learn about this course? -Please Select-

23. Were you satisfied with

a) availability of technical assistance? -Please Select-

b) quality of academic advising? -Please Select-

c) availability of the library and other course material? -Please Select-

d) ease of registration? -Please Select-

e) availability of tutoring? -Please Select-

f) quality of tutoring? -Please Select-

g) availability of information about the course (requirements, pre-requisites, technical skills, etc)? -Please Select-

h) financial aid services? -Please Select-

i) bookstore services? -Please Select-

24. What could be done to improve this

course?

25. What could be done to improve online services?

26. Comments

Thank you for your help in completing this survey.

CURRICULUM VITAE

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Objective:

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Webster University, 2002
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Experience:

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Quinnipiac University
Academic Discipline: Business Management

Adjunct Instructor, 2006 - present
Middlesex Community College
Academic Discipline: Economics

Adjunct Instructor, Fellow, Lecturer, 2004-2005
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Clute Institute Conference, 2008

Skills:

Knowledge and experience with Blackboard, eCollege, and WebCT; experience as a full-time instructor (including additional responsibilities, serving on committees, advising, course and program development); experience with HTML; ability to effectively engage students in online discussion and respond promptly to student concerns

References:

Excellent references available upon request.