ONLINE FACULTY SATISFACTION WITH
FORMAL AND INFORMAL FACULTY MENTORING
AT COMMUNITY COLLEGES
by
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Abstract

The purpose of this study was to determine whether formal or informal mentoring was more satisfying to online faculty who taught at community colleges. Study research questions inquired whether online faculty members were more satisfied with the formal or informal faculty mentoring they received before teaching online. A mentoring satisfaction survey was administered online to participants in order to better understand how satisfied online faculty were with the type of mentoring that they received prior to teaching online classes. Besides gathering data regarding faculty satisfaction, the survey also collected sample demographic information such as gender, years of teaching online and level of education of participants. Phone interviews were used to further collect data to answer the research questions in the study. The study was limited due to the small sample size. Study results indicated that online faculty considered mentoring beneficial but did not have polarized responses as to whether formal or informal mentoring was more satisfying. Faculty had some degree of satisfaction and dissatisfaction with both types of mentoring. Results of the study indicated that except for a slight increase of satisfaction in formal mentoring, both informal and formal mentoring were very similar in respect to the satisfaction of the online faculty study participants. Larger sample sizes may produce different results in studies of similar variables. Based on the study results, it is recommended that further research be done and that mentoring programs should also be reviewed and evaluated on a regular basis so as to improve faculty satisfaction and effectiveness of the mentoring provided.
Dedication

There is an old African proverb which says that it takes a village to raise a child. I would take this a step further in saying that it takes a many people to help a researcher complete a dissertation. With this said, I would like to first of all dedicate this dissertation to my wife, Chandra, and my daughters, Tara and Adrienne. They have provided me with the encouragement and support I needed to get through this long journey. Without their love it would have been very hard to finish.

Second, I would like to dedicate this dissertation to my parents. They have always encouraged me to have a good work ethic and to do well in my studies. They instilled in me the courage and stamina I have needed throughout my life to endure my trials and tribulations.

Third, I dedicate this to my students and encourage them to always improve themselves and understand that they have great potential. They can accomplish their goals if they commit themselves and stay focused. It was Aristotle who said, “We are what we repeatedly do. Excellence, then, is not an act, but a habit.”

Last but not least, I thank my Heavenly Father for sustaining me and answering my prayers. I have a testimony that with God nothing is impossible. I thank my Church and its members for helping me through this phase in my life and for being there when I needed their support.
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CHAPTER 1. INTRODUCTION TO THE STUDY

Introduction

Community colleges incur great expense to hire new faculty and train them in an effort to ensure their success. After faculty members are hired, factors soon arise regarding how satisfied they are with the training that they have received. Dissatisfaction can result in low morale and eventually, dissatisfied faculty may leave the institution. Some turnover can be good for the institution, but too much can be costly (Ambrose, Huston, & Norman, 2005). Faculty mentoring programs have increased since the early 1980s in an effort to support and retain faculty (Huling, 2001). Faculty mentoring has proven to provide positive professional growth for faculty (Hawk, 1986). Mentoring offers an efficient way for faculty to receive training that they will need to teach classes. As faculty receive the guidance and training that they need through mentoring, quality, satisfaction, and retention increase (Yosha, 1991).

An area of concern for faculty mentoring focuses on the preparation of faculty who teach online courses at community colleges. With the increase of online instruction at community colleges, more attention needs to be given to faculty preparedness (Bradley, 2008). Community college instructors must receive the necessary training in order to be prepared to teach in an online environment. Being prepared to teach in an online learning environment requires instructors to adapt to a setting that includes technology and instructional strategies that can be unfamiliar to instructors and the students alike. One of the areas that online instructors fail to learn properly is technology
(O’Quinn & Corry, 2002). Yet, it is known that students are more prone to use technology effectively when their instructors understand how to use the technology and are able to answer their questions and concerns about technology use (Clay, 1999).

When instructors master the technologies, they are able to increase the effectiveness and quality of their courses. Instructors often become frustrated when they do not know how to use technology in an online environment (Muirhead, 2000). It is evident that teaching online is sometimes rejected by instructors who are more accustomed to teaching within a traditional classroom setting (Rahman, 2001). Clay (1999) suggested that there is no other area more important to distance learning administrators than training and support for online instructors.

Ambrose, et al. (2005) interviewed faculty members at a university and concluded that satisfaction emerged among the faculty who had received effective mentoring versus the faculty who had not received any formal mentoring. Van Ast and Field (2005) reported that when students were enrolled in courses in which the instructors had been mentored, the evaluations of the instructors had a higher positive impact than for those instructors who had not been mentored. Ambrose, (2005), discovered that the three main areas of concern in mentoring are intellectual activities, professional/career development, and departmental politics. The same researchers concluded that faculty are generally satisfied when they receive mentoring, but not satisfied when no mentoring occurs. A gap in the research indicates that it is not known whether faculty prefers formal or informal mentoring in being prepared to teach online courses at community colleges (Ragins & Cotton, 1999; Thompson, 2007).
Background of the Study

For over 100 years, community colleges in the United States have taken the lead in providing an egalitarian approach to teaching and learning. Community colleges also have attempted to provide economic advancement for every American, regardless of previous education (Floyd, 2003). Community colleges excel in providing distance education to nontraditional students of all kinds (Floyd). Moore and Kearsley (2005) indicated that “[b]y the end of the decade, 84.1 percent of the public universities, and 83.3 percent of the 4-year public colleges offered Web-based courses. Seventy four percent of community colleges also offered online courses” (p. 51). Online courses work well for community college students, many of whom are part time and need to enroll in online courses for convenience.

Lokken, Womer, and Mullins (2008) reported that institutional programs are focusing on such concerns as quality, consistency, assessment, and retention in an effort to improve the online learning environment. With the increase of various online learning programs, many institutions are faced with providing the most effective way to train new online instructors. Many faculty are unprepared to teach online courses because online education is a fairly new innovation. Online faculty need additional skills to teach effectively in a technical environment. Just because faculty have excelled in a discipline does not necessarily mean that they will be successful in teaching online courses (Shelton & Saltsman, 2006). Yang and Cornelious (2005) remarked that instructors can deliver quality online instruction by upgrading their technical skills, having the ability to design
interactive activities and course syllabi, knowing how to operate and manage the learning platform, and being able to resolve problems that learners may have. Receiving this training before teaching online courses is crucial.

Faculty play a key role in developing and creating online courses that provide students with as much or more learning than before. Institutions faced with tight budgets have faculty who can attempt to use these funds as efficiently as possible (Meyer, 2006). A way to be cost efficient and provide support for online instructors is through faculty mentoring. Online instructors must have the support of other instructors who have taught online learning courses. Administrative and technical support are also important factors (Yang & Cornelious, 2005). Mentoring provides the support that faculty need to survive and grow in academia (Boice, 1990). When Odysseus left to fight in the Trojan War, Mentor was assigned the responsibility of caring for Telemachus, Odysseus’s son. The Odyssey relates that Mentor provided wise counsel to the son so that he would be prepared to become king. In the 1970s, mentoring programs began to modernize, and they encompassed the areas of business, adult development, and academia. It also was during this time that mentoring became a popular technique for training managers (Russell & Adams, 1997).

A great deal of attention has been paid to mentoring in business and less attention has been given to mentoring research in the area of education (Ehrich, L. C., Hansford, B., & Tennet, L., 2004). According to some researchers, (Galbraith, M., & Cohen, N, 1995) this lack of concentration made it difficult to define mentoring, determine how and whether it was satisfying for faculty. This lack of concentration also made it difficult to
determine whether mentoring was beneficial to faculty and whether faculty mentoring programs should be used in community colleges (St. Clair, 1994). Speizer (1981) sought to find a universally acceptable definition of such concepts as mentor, role, sponsor, and guide. Even today, clarity of the term mentor is elusive and open to various interpretations (Mathews, 2003; Roberts, 2000). Kram (1983) advanced the functions of mentoring as career and psychosocial functions. Mentors attempt to provide support to mentees from both of these functions. The career function attempts to support the career advancement of the mentee while the psychosocial function provides a “sense of competence, identity, and work-role effectiveness” (Kram, p. 2).

Cohen (1995) developed the Principles of Adult Mentoring Scale as a way to evaluate 55 interpersonal behaviors that relate to maintaining and developing a mentoring relationship. According to Cohen, mentoring involves six interrelated behavioral functions, with each one providing a specific purpose. These functions include: a relationship emphasis that focuses on establishing a trust within the relationship, an information emphasis that allows advice to be shared, a facilitative focus that provides alternatives in the relationship, a confrontive focus that works to provide challenge, a mentor model that is used to motivate, and a mentee vision that is used to provide and encourage initiative. He also declared that all six functions must be present to form the complete mentor and that community college professors should be moving through the functions in order to be effective as mentors.

Faculty mentoring programs have increased since the early 1980s in an effort to support and retain faculty (Huling, 2001). Gareis and Nussbaum-Beach (2007)
determined that mentoring can improve the effectiveness of online instruction. Lund (2007) found in his study that higher levels of satisfaction in the mentor-mentee relationship were identified in the targeted sampling procedure and resulted as satisfying as well as significant to the participants. He also reported that the mentees specifically indicated that their satisfaction exceeded any other relationship that they had been in previously. St. Clair (1994) discovered a higher degree of satisfaction among mentees than mentors. Sands, Parson, and Duane (1991) conducted a study in academia that examined the nature and extent of faculty mentoring other faculty members. They concluded that “mentorship is a complex, multidimensional activity” (p. 189) that occurs informally amongst faculty members.

In 1999, Ragins and Cotton discovered that even though informal mentoring, more so than formal mentoring, has been connected with more positive career outcomes; marginalized groups have had the experience of encountering significant barriers to the development of informal mentoring relationships in the workplace. They concluded that organizations “use formal mentoring relationships as a springboard for the development of informal relationships” (p. 546).

Although research has shown that satisfaction is present in formal and informal mentoring relationships, it remains unknown whether faculty would receive more satisfaction from an informal or a formal mentoring program in preparation to teach in an online learning environment. An area that has yet to be explored is whether faculty members are satisfied with the mentoring they receive in preparation to teach online courses at community colleges (Ambrose et al., 2005; Thompson, 2007).
Statement of the Problem

It is not known how and to what extent faculty mentoring impacts the satisfaction of community college faculty who teach online courses. Moore and Thompson (1990) suggested that the success or failure of educational institutions that use technology is based on the skill and dedication of faculty. Technology is constantly changing and advancing, so faculty need to enhance their technical skills and abilities to be more effective with technology in the classroom. This is especially important for faculty who teach online courses (Betts, 1998; Rockwell, Schauer, Fritz, & Marx, 1999; Schifter, 2000). Research has indicated that if faculty members are not properly prepared to teach online courses, they will have a tendency to reject teaching in a distance education environment and will revert to teaching in the traditional classroom setting (Rahman, 2001). Strategies to better prepare faculty need to be investigated to resolve this problem. These strategies would lead to more prepared faculty and would result in higher student and faculty satisfaction (Dooley & Murphrey, 2000).

Faculty satisfaction is an important factor leading to a higher quality online course. Dahl (2005) and Jorgensen (2003) discussed five pillars of quality that online education should have to be successful; these areas include: learning effectiveness, student satisfaction, faculty satisfaction, cost effectiveness, and access. The faculty satisfaction pillar includes peer mentoring, which if achieved, leads to increased satisfaction with instructors who have been mentored. Yang and Cornelious (2007) asserted that for online instructors to be successful, they must have the support of other instructors and administration, as well as technical support. Gaide (2004) remarked that
faculty mentoring has improved the quality of courses and student retention. Mihans (2008) noted that mentoring programs for instructors not only motivate instructors but also increase teacher retention.

It is evident that faculty mentoring can increase the quality of instruction; however, it is not clear whether informal mentoring or a formal mentoring program would be more satisfying to online instructors. Ragins and Cotton (1999) concluded that mentees felt that informal mentoring was more effective than a formal mentoring program. Although it was clear in the findings from this study that informal mentoring would be more successful than formal mentoring, it was not clear whether the same would be true for faculty who are mentored in an online environment at a community college. Ragins and Cotton were primarily conducting their research in a nonacademic setting, and the participants were from different professions. A research gap that has not been resolved is whether online faculty at a community college would be more satisfied with informal or formal mentoring.

**Purpose of the Study**

The purpose of this study was to ascertain whether formal or informal mentoring was more satisfying to online faculty who taught at community colleges.

**Rationale**

Institutions in higher education are continuing to turn to technology to deliver education. It is evident that enrollment in online courses at community colleges has vastly
increased in recent years. Bradley (2008) reported that in the fall of 2006, 3.5 million college students were enrolled in at least one online course in the nation. With the increase in enrollment in online courses has come a concomitant increase in student attrition. S. Carr (2000) related that online students drop out of online courses at a rate of 15% to 50% higher than face-to-face courses. Some of the reasons for dropping out of online classes include: a lack of finances, poor student-institution fit, changing career or academic goals, and the failure of the institution to provide a good learning environment (Lau, 2003).

Maintaining the quality of online courses is important if community colleges and other institutions are to satisfy the learning needs of students. To improve the effectiveness of online courses, the instructors must possess the requisite skills and abilities (Mathews, 2003). El Mansour and Mupinga (2007) identified that online instructors lack technical training and support. A solution to this problem is faculty mentoring (Mathews). Faculty mentoring is relevant to the education system because it helps to promote student retention and academic achievement (Cohen & Galbraith, 1995). Educational institutions are faced with a lack of funding in a battered economy; mentoring helps to fill the void by providing a low-cost way to assist educational institutions.

Mathews (2003) further emphasized that successful mentoring programs can help to acclimate new employees, increase the success rate of transferring training into practice, and increase the necessary exposure that women and minorities might need for career progression. Allen, Russell, and Maetzke (1997) commented that very little
research has examined the variables regarding mentees’ satisfaction with a mentoring experience. This study adds to the body of knowledge in the area of education by exploring whether formal or informal mentoring is more satisfying to online faculty who teach at community colleges. The results of this study provided administrators with information about what type of faculty mentoring would be more appropriate to increase faculty satisfaction. Educators will have a better idea whether to use informal or formal mentoring in improving the quality of instruction in online courses.

**Theoretical Framework**

The primary theory upon which this study of mentoring was based was social learning theory. The establishment of relationships within mentoring provides the basis for social learning theory (Bandura, 1976). Originally, Gabriel Tarde (1843-1904) claimed that social learning theory occurred through four stages: close contact, imitation of superiors, understanding of concepts, and role model behavior (as cited in Rotter, 1973). Rotter modified Tarde’s approach by moving away from psychosis and behaviorism and creating a learning theory. Rotter declared that the effect of behavior on people is closely connected to motivation, that is, people desire to move away from negative consequences and move toward positive results. If there is an outcome of a positive outcome from a behavior, then people are more likely to engage in that behavior.

St. Clair (1994) asserted that this approach emphasizes that a less experienced faculty member gains competence from a more experienced faculty member who is demonstrating the skill. As the less experienced instructor observes positive behavior
from the more experienced instructor, the inexperienced instructor is more likely to imitate the behavior. Social learning theory (Bandura, 1976) also emphasizes that the environment can influence others. This study focused on the online learning environment and whether mentors can increase the satisfaction of the mentees.

St. Clair (1994) also suggested that motivation theory supports mentoring because of its emphasis on relationship seeking and competence seeking. People desire to have relationships based on their inherent need for belonging. If they establish a relationship, then they move on to competence in their work (Maslow, 1970). This motivational theory is relevant to mentoring in that new faculty, or those who are inexperienced, are motivated to seek mentoring relationships with senior faculty in an effort to increase competence in what they do.

Kram’s (1983) mentor role theory is a significant theory relating to mentoring functions. Although it was initially created for the field of business, it is very applicable to academia. The model relates that mentors can provide career development functions that can help mentees to better understand the organization and provide information for advancement. Specifically, Kram suggested that mentors can provide five career development functions: sponsoring promotions and lateral moves (sponsorship), coaching the mentee (coaching), protecting the mentee from opposing forces (protection), sharing with the mentee challenging assignments (challenging assignments), and increasing the amount of exposure and visibility that the mentee receives (exposure).

The second broad area is the psychosocial function. This function comprises behaviors relating to the interpersonal quality of the mentoring relationship and the
emotional bond within the relationship. The career development functions are concerned with the organization and the mentee’s career. The psychosocial functions extend to the personal level of the mentee and affect such areas as personal development. Kram (1983) further related that mentors can provide four psychosocial functions: assisting the mentee in developing the professional self (acceptance and confirmation), offering problem-solving and a sounding board (counseling), providing respect and support (friendship), and providing identification and role modeling (role modeling). It should be noted that the mentoring process according to Kram is not an all-or-nothing phenomenon. A mentor may provide some or all of these functions.

Research Questions and Hypotheses

Primary Question

Is formal or informal faculty mentoring more satisfying to online faculty at community colleges?

Secondary Question

Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?

Hypotheses

$H_{01}$: There is no significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.

$H_{a1}$: There is a significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.
$H_{02}$: There is no significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.

$H_{a2}$: There is a significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.

$H_{03}$: The satisfaction level of online faculty at community colleges is independent of type of mentoring received.

$H_{a3}$: The satisfaction level of online faculty at community colleges is dependent of type of mentoring received.

**Study Variables**

The study included two independent populations which involved online instructors who received formal and informal mentoring. Binomial random variables from both populations were studied at two community colleges. Specifically, the proportions of responses in agreement to the indicators for both formal and informal mentoring were calculated. Further, the degrees of satisfaction were measured through the responses which faculty provided about the mentoring in which they participated to prepare to teach online classes.

**Significance of the Study**

Because the demand for online instruction is increasing in community colleges, the quality of teaching online is needed to provide the best learning environment for students (Yang & Cornelious, 2005). Poor online instruction can lead to issues regarding
student retention (Wild & Ebbers, 2002). Mentoring has proven to be a valid approach to
improving the quality of instruction (St. Clair, 1994). It also is known that career
advancement and psychosocial support are provided to the mentee (Kram, 1985). As for
career advancement, Roche (1979) found that 75% of top executives in the United States
had been mentored and that compared to nonmentored executives, they earned 25%
more. The mentored executives also were more likely to have a college degree, be
happier with their careers, and were more likely to mentor others (Ehrich, et al., 2004).
Psychosocial results have identified such elements as encouragement, friendship, and
feedback and advice on performance (Kram).

Because mentoring is a reciprocal process, it provides benefits to mentors as well
as mentees. Levinson (1978) found that the mentoring process rejuvenates mentors’
careers because it allows the mentors to facilitate and shape the personal and professional
development of the mentees. Support has been identified to show that mentor status has a
direct relationship to the increase in internal satisfaction and fulfillment that occurs with
mentors (Ragins & Scandura, 1994). Mentors usually benefit from the results of a loyal
support base from their mentees and recognition from the organization for their abilities
as teachers and advisors (Kram, 1985).

The organization benefits through lower mentee turnover, higher mentee and
mentor commitment to the organization, and the development of leadership talent through
the mentoring experience (Baugh, Lankau, & Scandura, 1996; Eby & McManus, 2004;
Scandura & Williams, 2004). It is not known how and to what extent faculty mentoring
impacts the satisfaction of community college faculty who teach online courses. Along
with these issues are diverse mentoring programs and models that take different approaches to enhancing the quality of instruction.

Community colleges need to have cutting-edge distant education programs because of the vast number of other institutions offering similar online programs. As faculty at community colleges move into teaching online courses, it will become more apparent which type of mentoring, formal or informal, is better suited in preparing them to teach online.

**Definitions of Terms**

The following terms are defined in the context of this study:

**Distance education.**

“[D]istance education is planned learning that normally occurs in a different place from teaching, requiring special course design and instruction techniques, communication through various technologies, and special organizational and administrative arrangements” (Moore & Kearsley, 2005, p. 2).

**Faculty satisfaction.**

In this study faculty satisfaction is concerned with the extent faculty are satisfied with the mentoring (informal or formal) that they have received in preparation to teach online courses.

**Mentor.**

“[T]he role taken on by someone who is willing to help someone else learn and grow by agreeing to interact with this person to transfer experiences and skills” (Murray,
Formal mentoring.

This occurs through the guidance and assistance of the organization (Ragins & Cotton, 1999). The organization initiates the matching of mentors to mentees. Formal mentoring programs are highly structured and include contracted goals and timelines. This structure includes such items as orientation and training in an effort to help mentors and mentees understand their roles and responsibilities (Eby & Lockwood, 2004).

Informal mentoring.

This is comprised of mentoring relationships that develop spontaneously and occur naturally. These relationships form through friendships and through “personal and professional respect and admiration from each to the other” (Inzer & Crawford, 2005).

Mentoring.

“[M]entoring is when a trusted and experienced individual freely acts as a friend, advisor, coach, guide, teacher or role model to someone less experienced and in need of such a relationship” (Ferronto, 2005, p.6).

Protégé/mentee.

The person who is the recipient of the mentoring. A mentee receives direction and counsel from the mentor and is seen as a beginner (Healey & Welchart, 1990).

Assumptions and Limitations

A major assumption is that community colleges have made robust contributions toward distance education and will continue to do so in the future. With the growth of
online courses, concern for the quality of the instruction needs to be at an acceptable level in order to satisfy student learning.

This study examined the degree of satisfaction of online faculty, not faculty in traditional face-to-face classes, with mentoring. For this reason, such factors as the use of technology within a classroom, compared to technology used in an online course varied. Although some instructors used such online platforms as Blackboard or WebCT within the traditional classroom, it was presumed that these face to face instructors would not use this technology as much as online instructors do.

The sample size was small and was limiting to the study. It was also discovered that the mentors had various levels of experience with online teaching. The study sample included mentors who had a wide breadth and depth in teaching online courses.

It is hoped that the faculty members who completed the survey provided honest and complete responses regarding their satisfaction with the mentoring process in which they participated. It is further presumed that during the interview process, the respondents that participated provided honest and unbiased responses to the questions. A limitation to this study is that the focus was on community college faculty at three community colleges only, and not other faculty who teach at other educational institutions, such as large universities.
Nature of the Study

A mixed methods approach was used in this study for various reasons. First, a quantitative approach in this study was able to capture the “frequency and magnitude of trends” through the use of a survey (Creswell, 2005, p. 510). The survey used was a 4-point Likert scale that was given to 29 online faculty at three different community colleges. These online faculty had previously completed either formal or informal mentoring in preparation to teach online. The quantitative data were tallied and compared using a test for difference of proportions to see if there was a significant difference in the data results between methodologies used.

Qualitative data were collected so as to provide “many different perspectives on the study topic and provide a complex picture of the situation” (Creswell, 2005, p. 510). A series of nine semi structured questions were used during phone interviews with participants. From the results of the interviews, qualitative data were sorted for common themes and presented accordingly.

This study used a sequential explanatory design which consisted of a quantitative phase followed by a qualitative phase. Emphasis will be given primarily to the quantitative phase (Creswell, 2005). This strategy made use of quantitative and qualitative methodologies to offset the weaknesses of one method with the strengths of the other. This strategy integrated the results of both methods into the interpretation phase of the study. These methods were narrowed to randomly selected online courses.

The participants included community college faculty who had previously enrolled in formal mentoring programs or have been involved with informal mentoring at
community colleges and have also taught online courses. Faculty who had not received mentoring, but who had taught online courses at community colleges, were selected in an effort to measure satisfaction. This helped to avoid biased results through the data collection process.

This study made use of an established formal mentoring program rather than a formal faculty mentoring program that was new and unrefined. An established faculty mentor program had been chosen because this type offered a higher standard than programs that are still being developed. In addition, established programs should contain all of the standards that a formal program requires.

**Organization of the Remainder of the Study**

The remainder of the study included a literature review that presents a discussion in several general categories: introduction, theoretical framework, online education, faculty mentoring, formal and informal mentoring, and faculty satisfaction. It also included a summary. The remainder of the study included: the research methodology, data collection and analysis processes, conclusions, and recommendations for future research.
CHAPTER 2. LITERATURE REVIEW

Introduction

The literature on mentoring is abundant and rich in theory and application. Most of the research has tended to be in the areas of business and medicine and has been somewhat limited in higher education. Mentoring research has been done in traditional hierarchical mentor-mentee relationships in settings other than academia. Studies have focused on traditional dyadic relationships (Allen, Day, & Lentz, 2005; Baugh et al., 1996; Chao, 1997; Fagenson, 1989; Hunt & Michael, 1983; Kram, 1985; Ragins, 1997).

Faculty mentoring in higher education generates models to improve teaching excellence and to facilitate socialization into the community college culture. The socialization function allows mentees to become acclimated to the institution’s culture, receive the necessary social support, and develop professional relationships. The career function provides development in becoming an effective teacher, forming collaborative efforts, acquiring grants, advancing toward tenure, establishing publisher and professional networks, and maintaining service and identity (St. Clair, 1994). Conrad and Hammond (1982) suggested that faculty-to-faculty mentoring programs be provided for community colleges that focus on “teaching effectiveness as part of faculty development” (p. 50).

This review of the literature related to this study includes the theoretical framework, which consists of social learning theory, constructivism, and motivational theory. The remainder of the review presents other themes related to the study, including
mentoring, mentoring models, formal mentoring, informal mentoring, online instruction, and faculty satisfaction. Through a thorough review of the literature, research gaps will be exposed.

**Theories and Mentoring**

Upon reviewing the literature, a variety of pertinent theories relating to mentoring emerged. The theories included those related to observational learning, motivation, career stages, and constructivism. This section will provide insight into the theories of social learning, motivation, stage, and social constructivism.

**Social Learning Theory**

Social learning theory, the foundation of mentoring, was originally identified by Bandura (1976). The central characteristic of this theory is that people learn from observing others. The observational learning that takes place is further characterized by the notion of self-regulation. Bandura contended that individuals can regulate their own behavior to some degree by visualizing self-generated consequences (as cited in Ismael & Arokiasamy, 2007). St. Clair (1994) and Thompson (2006) asserted that social learning theory is the theoretical foundation for mentoring in education. Social learning theory combines the elements of behaviorist and cognitivist orientations, with the result being that people learn from observing others. This theory adds to adult learning by emphasizing the importance of social content and demonstrating the process of modeling and mentoring. A new faculty member achieves competence by observing and being involved with an experienced faculty member who demonstrates skills in teaching (St.
Motivation Theory

Motivation theory supports mentoring because those involved in the mentoring process look for a competence-seeking behavior. Also related to this theory is the idea that through mentoring, individuals seek a relationship that satisfies their need for belonging (Maslow, 1970). Maslow’s hierarchy of needs suggests that the lower needs must be met before one can attain the higher needs. Individuals who lack fulfillment of a lower need will act to remove the deficiency. The first four levels consist of physiological needs (hunger, thirst, bodily comforts); safety/security needs (out of danger); belongingness/love (affiliate with others, acceptance); and esteem (achievement, approval, recognition; Huit, 2004). Once these levels of needs are met, individuals may move to satisfy the higher needs of cognitive (know, understand, explore); aesthetic (symmetry, order, beauty); self-actualization (attain fulfillment, reach one’s potential); and self-transcendence (connect to something that is beyond our own ego or help others to be self-fulfilled). Maslow asserted that as one becomes more self-actualized and self-transcendent, one becomes wiser and is able to know what to do in a variety of situations.

Clearly, Maslow’s (1970) theory meshes with mentoring. Mentees can be deficient in the area of relationships and seek to satisfy this need by working with mentors. For example, they may need to acquire skills in teaching, so they may seek to associate with someone who is competent in these abilities. As mentees satisfy each of the lower needs, they can then strive to meet higher needs and eventually move toward self-transcendence, mentor others, and help them to become self-fulfilled (Huit, 2004; Clair).
Stage Theory

Similar to Maslow’s (1970) theory is stage theory, which examines individuals’ professional career development through various career stages. This model has four stages: In Stage 1, individuals receive direction from others; in Stage 2, individuals demonstrate the competencies received; in Stage 3, they take what they have learned and mentor others; and in Stage 4, the individuals provide direction for the institution. The characteristics of Stage 3 include influencing, guiding, directing, and developing others. Dalton, Thompson, and Price (1977) claimed that serving as a mentor is an important part of this stage of professional development. The researchers noted that it is during this stage that individuals have “broadened their interests and capabilities” (p. 29). According to Dalton et al., the three roles included in this stage are informal mentor, idea man, and manager. Informal mentors are given more work because of Stage 2 and seek help from others to accomplish this work. As they seek assistance from others, they become mentors from those helping them. Also in Stage 3, the individuals consult with others and provide suggestions. It is during this stage that the individuals become autonomous. During the role of manager, individuals actually assume what the supervisor or manager could accomplish. It is during this stage that individuals accomplish many of the goals that managers would be able to do. In respect to relationships with others, the individuals develop reciprocal relations with others that allow them to collaborate with others and receive assistance when needed. The individuals assume more confidence in being able to achieve their own responsibilities as well as assist others.
Social Constructivism

Another theory relating to online instruction is constructivism. Constructivism was presented by Bruner (1996), Dewey (1916/1980), Piaget (1973), and Vgotsky (1978) as a way for learners to actively learn and construct new knowledge based on prior knowledge. The instructor plays the role of facilitator during the process of learning (Ornstein & Hunkins, 1998). Dewey declared that a situation (e.g., online learning environment) represents the experiences a learner goes through and that the learner interacts with this environment. According to this approach, knowledge is based on active experience. Dewey stated, “Experience is always the starting point of an educational process; it is never the result” (p. 94). For Dewey, the learning process is emphasized more than the final result is. Piaget and Dewey believed that the instructor’s role involves the shaping of the learners’ experience from the environment.

Dewey (1916/1980) also contended that one of the main functions of education is to improve the reasoning process. Dewey believed in using the problem-solving approach to different issues. Therefore, according to Dewey, constructivism emphasizes the learners’ ability to solve problems. Vygotsky (1978) focused on the importance of interaction between people, including interaction and collaboration between other learners and the instructor. The theory of social constructivism promotes problem solving between other learners and the instructor. The constructivist approach to knowledge and learning can be facilitated through online instruction and various technologies (Mekhlafi, 1997). Discussion boards, e-mails, synchronous chats, online lectures, online
assessments, and other technological advances aid the instructors of online course in assimilating the processes of social constructivism (Gold, 2001). Vygotsky promoted collaborative problem solving, which also can be used in the online learning environment, as a way to reinforce the course content (Huang, 2002).

Online educators should be cautious in promoting constructivism in a course. Huang (2002) warned that learners may feel isolated because individualized learning is stressed in the online environment. Such technologies as teleconferencing and video conferencing may alleviate this problem. A second issue may result because of the quality and authenticity of the learning involved in online courses. Much of the learning takes place beyond the scope of what the instructors provide. This is especially true in discussions and in collaboration with other learners. The third issue has to do with the role of educators and the ways in which learners control their learning. The instructors should see themselves as facilitators, consultants, or guides (Huang; Markel, 1999). The fourth issue concerns the preauthentication of learning in online courses. Petraglia (1998) defines this concept as “the attempt to make learning materials and environments correspond to the real world prior to the learner’s interaction with them” (p. 53).

Online instructors should be aware that information available to learners can demonstrate various interpretations of the real world, not what the instructor may have in mind in teaching learners. Online instructors also should be aware that learning outcomes are not always easy to assess. The sixth argument deals with the fact that constructivists emphasize that instruction and the learning process are learner centered. Seventh is the fact that collaborative learning can conflict with individual differences. Often, when
collaborative learning is required, online instructors might experience problems in trying to take into “account individual learning objectives, preferences and capabilities” (Westera, 1999).

**Online Education**

Widespread access to the Internet has created many opportunities for nontraditional classes to use this medium. This form of education is very attractive to students who may be constrained by family, work, or other obligations. The need to attend a brick-and-mortar classroom is eliminated. Online education also is attractive because students can apply to the online institution of their choice (Karber, 2003).

Online education has increased dramatically over the last 10 years. Singh and Pan (2004) reported that more than 50,000 online courses, with an enrollment of more than 1.6 million students, were offered by universities in the United States in 2000. Lyons (2004) stated that the number of distance education courses grew from 750,000 in 1994-1995 to 2.9 million in 2000-2001. McLenney (2004) noted that enrollment will increase by 13% between 2000 and 2015 in community colleges in the United States. According to Singh and Pan, revenues in online education were forecast to grow from $500 million in 1998 to $11.4 billion in 2003. The Sloan Consortium reports that student enrollment has increased at a rate of over 2% per year. Enrollment increased from 16.6 million in fall 2002 to 19.6 million in fall 2010 (Allen & Seaman, 2011). Online education has become an important component of higher education. Because distance education has no boundaries, many institutions are offering courses that can be accessed by global learners.
Some institutions even offer online degree programs without any residency requirements (Lyons). Online education is a burgeoning industry that will continue to grow in the 21st century.

This shift from a physical classroom setting to an online learning environment is evident in the fact that there is an increasing demand for education and that funding for expanding the physical facilities of educational institutions is limited. Because of the revolution in communication and information technologies that occurred in the 1990s, physical classrooms are no longer the only place for learning (Deal, 2002).

**Advantages of Online Learning**

In discussing the many benefits of online learning, Singh and Pan (2004) suggested that online learning has many advantages if it is administered appropriately. One of the advantages is convenience, which allows learners to choose when and where they want to study. The only exception might be when instructors require a time for chatroom sessions. The only limitation is that learners have to find a location where access to the Internet is provided.

A second advantage to online learning is that feedback and reaction data can be retrieved quickly from students in this type of learning environment. Testing that is self-administered can be useful to the students by promoting self-evaluation and self-learning. Continuous evaluations, outcome assessments, and instructors’ regular interventions can improve students’ academic achievement. A third advantage of online learning is that the learners have increased control over what they will share and what they want to learn. A good example of this might be when instructors put entire lectures online. Students can
review the lectures repeatedly in an effort to increase understanding.

A fourth advantage of online learning is that broadband communication technology increases the amount of instructor-to-student contact and peer-to-peer contact. A frequent complaint is the perception that online courses do not have the same amount of contact between instructors and students that face-to-face courses have. The use of well-designed communication technology can lessen, if not reverse, the perception that there is less contact in online courses.

A fifth advantage of online learning is that interactivity is integrated into most of the courses so that students can have meaningful interactions with their instructors. Mechanisms are designed for online courses so that the instructors can provide regular feedback, particularly on assignments. E-mail provides another channel of communication. Students can have real-time chats with other students in the course room. Accessibility is another advantage for students who live far from educational institutions or have limited time to be on campus. Students can enhance their learning opportunities because of the accessibility that online courses offer (Singh & Pan, 2004).

To fully offer students all the foregoing benefits of online learning, effective online instructors should incorporate a vast number of skills and abilities into their teaching pedagogy. These skills cannot be obtained by faculty attending one orientation or training class. Rather, to accomplish such a goal, faculty must have ongoing professional development and continued commitment to teach successfully online.
**Challenges of Online Education**

Beyond the benefits of online learning are challenges involved with instruction, technology, and student expectations. Important factors for online instructors include the need to prepare, plan, and gather course information and other materials before the beginning of the semester (Coyner & McCann, 2004). Another challenge is for instructors to modify the course from the regular classroom setting to the online learning environment (Reeves & Brown, 2002). Modifying materials for the online classroom can be difficult if the instructors are not organized, dedicated, and committed (Reeves & Brown). Many instructors will pilot and revise courses in order to ensure good delivery.

Technological challenges can arise when electronic formats are not compatible. Some elements of technology, such as streamed video clips or slideshows, may be either too large or too complex for students to download or use with their computers. Some students may need special accommodations, as determined in the Americans with Disabilities Act (U.S. Department of Justice, 2008). Designing technology to meet those needs and comply with ADA guidelines can be challenging. For example, students who have a hearing disability may not be able to listen to an audio lecture. Providing an audio lecture with a hard copy would be a good alternative (Coyner & McCann, 2004).

Another technological issue is the digital divide. Moore and Kearsley (2005) defined this phenomenon as “the gap between those who have and those who do not have access to the digital technology that is an essential prerequisite for online learning” (p. 212). Damarin (2000) explained that there are several classes of access to these digital technologies:
Those who own state-of-the-art computers and subscribe to an Internet service; Those who have access to computers and the Internet at work, libraries, or other locations, and know how to use them; Those who have rare or minimal access to computing technologies and little facility with them and Those who experience their everyday lives untouched by computer and information technologies. (p. 19)

Such “divides” may be evident in socioeconomic factors; geographical factors; educational, attitudinal, or generational factors; or physical disabilities. The global community and lack of technology also are of great significance (Cullen, 2001; Moore & Kearsley, 2005).

Although the digital divide is a challenge for online education, initiatives are being made by the federal government to bridge the gap. Such groups as the Department of Commerce, the Department of Education, the Star Schools Program, and other organizations have been making strides to fill the void of technology (Damarin, 2000). Although solutions have been provided for developed nations, more concern needs to be given to underdeveloped countries that lack adequate technology (Cullen, 2001). This divide further adds to the challenge of online instructors who wish to use technology to enhance learning.

Taylor (2003) argued that online education is not for everyone and that lower student performance and the rate of retention are issues relevant to online courses. Students who are challenged by a lack of motivation and self-discipline may enroll in an online class and then disappear halfway through the course. Coyner and McCann (2004) stated that students who need more personal assistance from their instructors and the institution may feel inadequate and frustrated because of the isolation. Students who wish to be successful in the online environment must be competent in such skills as writing,
communication, time management, organization, and ability to work independently (Deal, 2002).

**Quality in Online Instruction**

Along with the demand for online education is the need for quality in order to keep student attrition low. To ensure that quality is maintained, faculty must develop and rethink online courses so those students excel in their learning (Meyer, 2006). Faculty play an essential role in maintaining the standards of quality of online courses. Many institutions have misconceptions about teaching online, believing that all that is needed is to “install a fancy software package and train faculty to use it” (Palloff & Pratt, 2001). Many elements need to be addressed in becoming effective online instructors. It is for this reason that for some faculty, the transition from a physical classroom to the online learning environment can be daunting and overwhelming (Gross, 2004).

Although measuring learning and quality can be elusive and controversial in higher education, there is common ground in the elements of good online instructors. Technical competence, an effective pedagogy, a good attitude, motivation, and commitment are just a few of the concerns that institutions have in mind as they strive to ensure that online instructors are properly trained (Valentine, 2002). One consideration is that online education is learner centered and that traditional education is professor centered (Yang & Cornelious, 2005). Muirhead (2000) suggested that the three areas of concern for online instructors to consider when courses are put online include: “the provision of instructional and emotional support to students; the expectations associated
with authoring online courses while maintaining a full teaching load, and the requirement to provide ongoing technological support to students and parents” (p. 322).

Online instructors also should consider taking on the role of facilitator in guiding students in the learning process (Ascough, 2002). Online instructors should provide consistent feedback to students. Consistent interactions in discussion boards, e-mails, and other forms of communication need to occur on a regular basis between instructors and students in an effort to improve the quality of the course (Fein & Logan, 2003). Alley and Jansak (2001) identified important keys to quality in online learning:

Knowledge is constructed, not transmitted; students can take full responsibility for their own learning; students are motivated to want to learn; the course provides “mental white space” for reflection; learning activities appropriately match student learning styles; experiential, active learning augments the Web site learning environment, solitary and interpersonal learning activities are interspersed; inaccurate prior learning is identified and corrected; “spiral learning” provides for revisiting and expanding prior lessons and the master teacher is able to guide the overall learning process. (p. 6)

To ensure that quality instruction takes place, the qualifications and knowledge of the online instructors must be a primary consideration (Yang & Cornelious, 2005). Because instructor preparation is paramount, the stakeholders need to invest technical and financial support to online faculty. Instructors need to understand what their roles are and make any necessary adjustments. They need to “master, design, and delivery strategies, techniques, and methods for teaching online courses” (Yang & Cornelious, Conclusion and Recommendations section, para. 1). Instructors need to learn from others to reach their full potential (Youngblood, Trede, & DeCorpo, 2001). This kind of preparation and development can occur through mentoring.
Faculty Satisfaction

It can be easy to overlook faculty satisfaction and consider it trivial because of the more urgent concerns of students’ academic achievement and financial efficacy (Hagedorn, 2000). Mentoring may provide more support for online faculty, thereby allowing them to be successful in teaching and in other areas of academia (Boice, 1992; Bowen & Shuster, 1986; Boyle & Boice, 1998; Murray, 1991; Philip & Hendry, 2000). Effective mentoring is a primary source of satisfaction, whereas the lack of mentoring results in dissatisfaction (Ambrose et al., 2005). Because faculty are vital to the success of distance education programs, faculty evaluations should be done on a regular basis to best assess program effectiveness (Lock Haven University, 2004).

Buck (2001) commented that online education can sometimes be perceived as inferior by educators. Menchaca and Bekele (2008) discovered that faculty in various programs were satisfied with teaching online courses. Hartman, Dziuban, and Moskal (2000) reported that 83.4% of distance education faculty were satisfied with teaching fully online courses and that 93.6% of those who responded were willing to continue teaching online. St. Clair (1994) found a higher degree of satisfaction among mentees than mentors. In discussing faculty satisfaction, Hagedorn (2000) asserted that triggers, described as changes in lifestyles (e.g., change in rank or transfer to a new position), and mediators (e.g., demographics, motivators, conditions in the environment) can influence variables which in turn can influence our relationships. According to Hagedorn, mediators represent the “complexity of satisfaction” (p. 7). Mediators combined with triggers represent the framework by which job satisfaction can be evaluated.
Ambrose et al. (2005) interviewed 123 current and former faculty members at a university regarding satisfaction and retention. Seven categories, including salaries, collegiality, mentoring, reappointment, promotion and the tenure process, and department heads, were examined. The results indicated that a large portion of the faculty interviewed (39% of the 62 interviewed) did not feel that they were receiving support from their colleagues and the institution. In addition, 26% of current faculty felt that the lack of or ineffective mentoring was a reason for their dissatisfaction. Another 34% of former faculty felt that the lack of or ineffective mentoring was the reason for their dissatisfaction. It was evident from this study that faculty mentoring provided a way to fill the void of satisfaction and offer professional development to faculty. Research also has indicated that faculty who have been mentored have higher promotion rates, more career satisfaction, and higher overall compensation (Allen et al., 1997). Faculty mentoring is key to promoting satisfaction among faculty.

**Faculty Mentoring**

There is no more important area to distance learning administrators than the training and support of online educators (Lokken, F., Womer, L., & Mullins, C., 2008). Educational administrators make many decisions about mentoring programs, but probably the most important decision is how each instructor will be trained. Not all personnel are qualified to become mentors (Ehrich, L. C., Hansford, B., & Tennet, L., 2004). A carefully conceived distance training and support program will result in online instructors feeling confident to teach online courses (Clay, 1999). This is an important
area that needs to be addressed as many instructors are hesitant to teach online because of the time involved to prepare the courses, the challenges of learning new technology, the refusal to teach online classes because of lack of personal interaction, the increased workload, and other elements that may create barriers to a successful teaching environment (Clay; Deal, 2002; Li & Irby, 2008). Street (2004) suggested that one of the main purposes of a mentoring relationship is to socialize new faculty to the profession.

To better prepare faculty to teach online, many institutions are investing in distance mentoring programs (Helton & Helton, 2005; Mandernach, Donnelli, Dailey, & Schulte, 2005). Besides attending an orientation program delivered by distance education staff, faculty are being provided with experienced distance education mentors. Hutto, Holden, and Haynes (1991) defined a mentor as “an experienced, successful and knowledgeable professional who willingly accepts the responsibility of facilitating professional growth and support of a colleague through a mutually beneficial relationship” (p. 3).

The mentors’ responsibilities include assessing the mentees’ teaching and learning needs, then providing them with one-to-one training to improve their knowledge and skills (McKenzie, Ozkan, & Layton, 2006). In the field of academic mentoring, mentors often are older and more experienced faculty members who provide advice, guidance, and encouragement to younger, less experienced mentees. The mentors usually provide information that the mentees need. The mentees can be newly hired and recently tenured faculty (Miller, Wadkins, & Davis, 2008).

Mentors should have good qualifications and be committed to the mentoring role.
Some of these qualifications include a supportive attitude, interpersonal and communication skills, a willingness to share, a desire to be challenging, and a belief in the potential of the mentee (Daloz, 1999; Hawkey, 1998; Stanulis & Russell, 2000). Besides having these attributes, mentors should be able to share information and assistance with their mentees, provide a good model for them, and share constructive feedback regarding the mentees’ development (Daloz; Elliott & Calderhead, 1994; Fairbanks, Freedman, & Kahn, 2000). Ramani, Gruppen, and Kachur (2006) offered 12 tips for developing effective mentors:

Mentors need clear expectations of their roles and enhanced listening and feedback skills; mentors need awareness of culture and gender issues; mentors need to support their mentees, but challenge them too; mentors need a forum to express their uncertainties and problems; mentors need to be aware of professional boundaries; mentors also need mentoring; mentors need recognition; mentors need to be rewarded; mentoring needs protected time; mentors need support; encourage peer mentoring and Continuously evaluate the effectiveness of the mentoring process. (pp. 404-407)

The most effective mentors are “practical, generous, direct, honest, having clarity of ideas, energy, passion, high expectations, and a vision for their mentee’s future” (Girves, Zepeda, & Gwathmey, 2005, p. 453). In addition, mentors attempt to present a problem-solving approach and pass on to the mentees their insight, understanding, judgment, and knowledge (Healy, 1997).

There is a plethora of benefits for mentors, mentees, and the institutions. Huling (2001) suggested that mentoring allows the mentors to: reflect upon their own beliefs about teaching; is a reenergizing experience; provides psychological benefits, such as enhancing the mentors’ self-esteem; develops the skill of collaboration; and, contributes to teacher leadership. Mentees acquire new skills and knowledge, receive insight into the
culture of the institution, duplicate, develop self-confidence, receive recognition and satisfaction, improve communication, increase their empowerment, increase in status, gain an expanded vision, and obtain a role model (Mathews, 2003).

The benefits to the institution include increased productivity, improved management and technical skills, refined leadership qualities, improved employee commitment, retention of corporate knowledge, improved retention and satisfaction, enhanced culture and image, establishment of support networks for employees, increased performance, improved delivery of services, and increased online enrollment (Budge, 2006; W. B. Johnson, 2007; Mathews, 2003; Zellers, Howard, & Barcic, 2008). W. B. Johnson noted that mentoring begets mentoring and that mentees are more prone to mentor junior faculty members. As senior faculty retire, a mentoring program can fill the void of the lost intellectual capital and assist in the recruiting process (Hargreaves & Fullan, 2000).

Although the benefits appear to outweigh the disadvantages, there are factors that must be considered to ensure the success of the mentoring process. W. B. Johnson (2007) mentioned key individual mentoring obstacles that educators should know. For example, mismatched character or personality traits can inhibit the progression of the mentoring process, and mentors or mentees may lack specific elements of a good relationship. In addition, personal pathology may lead to an emotional disturbance to the mentoring relationship. Many senior instructors are more inclined to mentor faculty who remind them of themselves. A tendency toward “cloning” junior faculty members may result, that is, the mentors want the mentees take the same career path as the mentors.
(Blackburn, Chapman, & Cameron, 1981). One problem may be that junior faculty who do not match up with senior faculty may be rejected. Because mentoring requires an equal commitment and dedication from mentors and mentees, faculty members may not be willing to make sacrifices, have the energy, or provide the necessary attention needed for mentoring.

Because of the complexities and challenges that faculty might face, given their environments, a single master-mentor might be insufficient to provide the resources and guidance that are needed. A network of multiple, diverse mentors may be more able to provide the mentees with perspectives, knowledge, and skills that a single mentor may not. In addition, multiple mentors may have more opportunities to fulfill the career and emotional needs of the mentees (Baugh & Scandura, 1999; Higgins, 2000; Higgins & Kram, 2001, 1985; Kram & Isabella, 1985; Thomas & Higgins, 1996).

**Formal and Informal Mentoring**

In recent years, educational institutions have attempted to organize faculty mentoring. Formal programs in mentoring should not be viewed as substitutes for informal mentoring; rather, they should complement it (P. L. Carr, Bickel, & Inui, 2003; Chesler & Chesler, 2002; McCauley & Van Velsor, 2004; Ragins & Cotton, 1999). Formal mentoring results from an organization’s efforts to initiate efforts to match mentors and mentees. Some key outcomes of formal mentoring include talent development; improvement of employee knowledge, skills, and abilities; "employee retention" and diversity enhancement (Eby & Lockwood, 2004).
Formal mentoring programs vary in nature, focus, and outcomes (Ehrich et al., 2004). Jacobi (1991) mentioned that some programs aim to train mentors, but others do not. In some programs, the mentors are assigned to the mentees; in other programs, the mentees select the mentors. Other programs provide the location and time of meetings; other programs let the participants decide. In some programs, strict evaluation guidelines are adhered to; other programs use loosely evaluated guidelines and provide vague and imprecise techniques. Formal mentoring programs often have a specific time line, whereas informal mentoring has no specified time line (Eby & Lockwood, 2004). Formal mentoring needs to be well planned and structured, and the mentors and the mentees must be well matched, the goals of the program must be clear, and support for the program must be evident (Ehrich, L. C., Hansford, B., & Tennet, L., 2004).

Informal mentoring occurs naturally and spontaneously between mentors and mentees without involvement from other entities in the organization (Thompson, 2006). A characteristic of informal mentoring is the willingness of mentors to help the mentees and the desire of the mentees to receive this guidance (Chao, Walz, & Gardner, 1992). Mentors and mentees must look for partners whom they feel are competent (Mullen, 1994). A benefit to informal mentoring is that those involved are able to match up with partners who have similar interests and an interpersonal liking. In formal mentoring, the mentors carry out the mentor role as a duty imposed by administration, not because of any personal interest in the career advancement of the mentees. The lack of a specific framework could cause the mentoring relationship to suffer (Singh, Bains & Vinnicombe, 2002).
The success of formal programs at community colleges is based on how well the institutions can offer strong programs that are clearly visible but at the same time provide non-intrusive support for informal mentoring. In other words, mentees are interested in formal programs that have informal structural components, possess resources without dictating how they are used, and offer voluntary meetings without strict attendance (Hopkins & Grigoriu, 2005). Formal and informal mentoring relationships provide role modeling, career development, protection from adverse institutional forces, challenging assignments, help in advancement, and exposure and visibility (Scandura & Ragins, 1993). Clutterbuck (2004) declared that successful informal and formal relationships have a positive climate with many resources that can benefit mentors and mentees. Ragins and Cotton (1999) recommended that organizations use “formal mentoring relationships as a springboard for the development of informal relationships” (p. 546).

A significant portion of the research relating to this study was done by Ragins and Cotton (1999), who compared informal and formal mentoring with the mentoring received at a specific function level. This research provided important information about the nature of the differences between informal and formal mentoring. Their results indicated that the formal mentees in their study received lower levels of mentoring than did their informal counterparts, on almost every function namely, dimensions of sponsoring, coaching, protection, challenging assignments, exposure, friendship, social support, role modeling, and acceptance (Ragins & Cotton; Wanberg, Welsh, & Hezlett, 2003).

Ragins and Cotton (1999) discovered that informal mentoring was more satisfying
to the mentees than was formal mentoring. However, Ragins, Cotton, and Miller (2000) suggested that mentees with high levels of satisfaction with their formal mentors did not show any difference from the outcomes observed by mentees with high satisfaction with their informal mentors. These results suggested that formal mentoring relationships can have the same potential as informal relationships.

A research gap that Ragins and Cotton (1999) as well as other researchers have not studied is whether informal or formal mentoring is more satisfying for instructors at community colleges who are being mentored to teach online. Thompson (2007) stated, “Additional research in the comparison of formal and informal mentoring as a component of faculty development for online teaching would allow institutions to include the most appropriate and beneficial form of mentoring into their faculty development programs” (p. 149). Past studies have either not controlled for or taken into account the other characteristics that affect mentoring or the studies have not been specific about what characteristics were used to compare formal and informal mentoring (Wanberg et al., 2003). These characteristics include career commitment, job satisfaction, organizational commitment, organizational self-esteem, promotion satisfaction, intentions to quit, and procedural justice.

Ragins and Cotton (1999) believed that to suggest that informal mentoring is not automatically more beneficial than formal mentoring relationships is simplistic. The key variable should be the satisfaction of the mentoring relationship. Wanberg et al. (2003) concluded that formal mentoring relationships can have the same benefits as informal mentoring relationships. To date, no studies have examined and compared informal
mentoring with formal mentoring to determine which is more satisfying to faculty in an online environment. No researchers have examined this phenomenon in a community college setting. This study sought to rectify this gap in the research.

Summary

With the increase in the number of online courses available, instructors need to be prepared to take on the demands of engaging in the online learning environment. Transitioning from teaching face-to-face classes can be difficult and requires a paradigm shift in thinking (Bates, 1997). For online instructors to be successful, they must have the support of their institution or organization. Such concerns as technology, design, delivery, course management, strategies, follow-up, and time management are just some of the challenges facing online instructors (Fein & Logan, 2003). The demands of online teaching can be overwhelming and complex for faculty, and it can lead to burnout (Hogan & McKnight, 2007).

Positive student outcomes are correlated with faculty satisfaction (Hartman et al., 2000). For this reason, administrators should pay careful attention to faculty satisfaction because of the interaction effect (Bolliger & Wasilik, 2009). Faculty satisfaction is one of the five pillars of quality (Sloan Consortium, 2002), so it should be assessed regularly to ensure quality online learning experiences for faculty and students (Bolliger & Wasilik). In determining whether a formal or an informal approach to mentoring should be used to train online instructors, careful consideration should be made about which type of mentoring is more likely to result in faculty satisfaction and subsequently improve the
quality of the online learning environment (Chao et al., 1992). If institutions of higher learning invest in training online faculty sufficiently, the quality of instruction will rise.

Faculty mentoring offers many benefits for mentors and mentees (Ehrich et al., 2004). Mentors can become invigorated by their mentoring experiences. Barker (2003) noted, “A faculty mentor is essential for conducting ongoing conversations following initial orientation about what works and does not work online and offering practical tips for managing time and the course” (p. 276). Mentees may acquire new teaching skills and insights. Additionally, careers and psychosocial development of both the mentor and protégé are edified (Kram, 1983).

With the expansion of online learning, community colleges need to better prepare faculty to teach in this environment. Lack of preparation will create dissatisfaction and leave faculty feeling apprehensive about teaching online. This study provides institutions an increased insight into what type of mentoring can be more efficacious in preparing faculty to teach online.
CHAPTER 3. RESEARCH METHOD

Introduction

This study sought to determine whether informal or formal mentoring is more satisfying for faculty who teach online at a community college. The chapter discusses the research questions and hypotheses, design of the study, population and sampling, instrumentation, data collection, data analysis, ethical considerations, and validity and reliability of the study.

Research Questions and Hypotheses

The primary research question asks, “Is formal or informal faculty mentoring more satisfying to online faculty at community colleges?”

Secondary Question

Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?

Hypotheses

$H_{01}$: There is no significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.

$H_{a1}$: There is a significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.

$H_{02}$: There is no significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.
$H_{a2}$: There is a significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.

$H_{03}$: The satisfaction level of online faculty at community colleges is independent of type of mentoring received.

$H_{a3}$: The satisfaction level of online faculty at community colleges is dependent of type of mentoring received.

**Design of the Study**

An explanatory design of this mixed methods study allowed the researcher to “confirm, cross-validate, or corroborate findings within a single study” (Creswell, 2003, p. 217). A sequential approach was used so as to begin with a quantitative phase followed by the collection of qualitative data. During the quantitative phase, a test for the difference of proportions was used to test the hypotheses. The data were obtained using an online survey that utilized questions to examine the research questions and test the primary hypothesis. The secondary hypotheses were tested using a chi square test of independence with type of mentoring and satisfaction level as the variables. The qualitative approach makes no prediction; instead, it relies on what the participants report. The interview questions also provided a connection with the research questions and hypotheses. The purpose of the quantitative approach is to “explain and predict; confirm and validate; and to test theory,” whereas the purpose of the qualitative approach is to “describe and explain; explore and interpret; and to build theory” (Leedy & Ormrod, 2001, p. 102).
Data from quantitative and qualitative methods were collected, and variables and themes were compared to respond to research questions. Through the use of different samples, data triangulation was used in an effort to converge findings and thus increase confidence in the findings of the study. A between-method triangulation was utilized through the use of surveying and interviewing participants (Bryman, 2004). The sequential explanatory design contributed to understanding and interpreting the data collected. This methodology also demonstrates how the data converge between quantitative and qualitative strategies through the data analysis process. More importantly, this approach provided a way to test the reliability of various forms of data collection. The design was beneficial to this study because the data came from faculty at two colleges. This approach helped in determining whether the hypotheses should be rejected or not.

Greene (2005) stated, “Mixed method educational inquiry includes multiple and diverse methods for gathering, analyzing and representing educational phenomena within a framework that intentionally engages with the different ways of knowing and valuing that the different methods embody” (p. 208). A benefit of this approach is that it allows researchers to use various data collection strategies. It also expands the understanding of educational phenomena by providing specificity and generalizations, complex and patterned behavior, an examination of parts and its whole, and knowing and valuing information (Creswell, 2003, 2005).

The explanatory design allows a researcher to build upon recurring themes in the study. Member checking was used to validate the data in the final report. This method
also was used to verify the data that was collected. The participants were interviewed to give them the opportunity to explain and account for their survey responses.

**Population and Sampling**

The target population was comprised of online instructors at two community colleges. Participants were selected through the help of each institution’s distance education program. A sample of 23 online faculty who had been previously mentored (informal or formal) to teach online classes were used for the study. This was done in an effort to use the largest sample possible in an attempt to reduce the margin of error (Creswell, 2005). With this in mind, a 5% margin of error with a 95% confidence level was maintained from the sample (de Vaus, 2002). The first college was used to examine formal faculty mentoring, and the second college was used to study informal faculty mentoring. Before all phases were begun, informed consent forms were signed and returned for approval (see Appendix A). All participants were aware of the ethical guidelines in conducting the research, and the researcher ensured that they knew that their participation was strictly voluntary.

During Phase 1, a sample of online faculty who teach at community colleges and which had been formally mentored were provided with the electronic survey (see Appendix B). In Phase 2, a sample of online faculty at community colleges who had been informally mentored were given the same survey. After these two phases were completed and all of the surveys had been received, semi-structured telephone interviews were conducted using nine questions (see Appendix C).
Table 1.

Relationship Among Research Questions, Variables, and Survey and Interview Questions

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Research questions/Hypotheses</th>
<th>Survey/Interview Qs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal mentoring, Informal mentoring, Satisfaction, Online faculty, Online instruction</td>
<td>1. Is formal or informal mentoring more satisfying for online faculty?</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td></td>
<td>2. Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td>Formal mentoring, Informal mentoring, Satisfaction, Online faculty</td>
<td>$H_{01}$: There is no significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td></td>
<td>$H_{a1}$: There is a significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td>Formal mentoring, Informal mentoring, Mentee, Satisfaction, community colleges, Online instruction</td>
<td>$H_{02}$: There is no significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td></td>
<td>$H_{a2}$: There is a significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td>Informal mentoring, Satisfaction, Online instruction, community colleges</td>
<td>$H_{03}$: The satisfaction level of online faculty at community colleges is independent of type of mentoring received.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
<tr>
<td></td>
<td>$H_{a3}$: The satisfaction level of online faculty at community colleges is dependent of type of mentoring received.</td>
<td>SQs 1-11 IQs 1-9</td>
</tr>
</tbody>
</table>
The purpose of the qualitative interview process was to understand “themes of the lived daily world from the subjects’ own perspectives” (Kvale & Brinkman, 2009, p. 24). A phone interview session was held with each participant at each college. Identical interview protocols were used at both institutions. The interviews lasted approximately ten to fifteen minutes. The telephone interviews were recorded with the participants chosen from the sample. Transcriptions of the conversations were completed so that the researcher could code the data. Table 1 provides information on how the survey and interview questions were related to the research questions and hypotheses.

**Instrumentation**

In Phase 1 of the data collection process, the Mentor Satisfaction Survey was used to gather responses. The questions were field tested by experts at one community college who had experience in constructing surveys in an effort to check the internal validity of the survey. Those involved in the field test were tested with determining whether the instructions were understandable and clearly worded, had an adequate number of answers, a sufficient amount of detail, and no irrelevant questions; the length of the survey was adequate; and, whether the survey was conducted at times convenient to the participants. Specific revisions were made based on feedback from the administrators. In order to further minimize the threat to validity of the instruments, the same individuals were used to review the explanatory design. Also a large sample of 23 participants was used for the quantitative and a smaller sample of 11 participants was utilized for the qualitative portion of the study (Creswell & Clark, 2007). Concerns of instrument
reliability were initially addressed through a test-retest procedure in order to gauge whether the results were consistent between the phases of the study.

During Phase 2, telephone interviews were conducted with 11 of the same participants using the same protocol as a way to gather qualitative data in order to uncover information relating to the research questions. The semi-structured interview included nine formalized questions. These questions were derived and formulated through a careful review of the literature. The responses were coded into themes using NVivo software as a way to track the data results. A time line for completing the study is included in Appendix D.

**Data Collection**

After permission for this study was granted by Capella University’s Institutional Review Board, the participants were sent informed consent forms at the colleges via the Internet. Upon receiving consent from the participants, the survey was posted in Survey Monkey, and the participants at both sites responded to the questions. Participants from the colleges responded to a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). During the qualitative phase, eleven of the same participants that had originally completed the survey were interviewed. The researcher asked them nine questions. Data from the surveys and the telephone interviews were collected in an effort to identify themes for the study.

The survey was distributed to faculty involved in the mentoring process. This same survey was also used to collect data from students who have been taught by the
faculty to measure the effectiveness of the mentoring that took place. Table 2 shows how
the data was collected to address the research questions and hypotheses.

Table 2.

*Sources of Data for Research Questions and Hypotheses*

<table>
<thead>
<tr>
<th>Research Questions/Hypotheses</th>
<th>Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is formal or informal mentoring more satisfying for online faculty?</td>
<td>Online survey using a 4-point Likert scale.</td>
</tr>
<tr>
<td></td>
<td>Semi structured questions used to conduct phone interviews.</td>
</tr>
<tr>
<td>2. Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring?</td>
<td>Online survey using a 4-point Likert scale.</td>
</tr>
<tr>
<td></td>
<td>Semi structured questions used to conduct phone interviews.</td>
</tr>
<tr>
<td>$H_{01}$: There is no significant difference in satisfaction rate online faculty who have received mentoring as compared with those who have received informal mentoring at community colleges.</td>
<td>A $z$ test of proportions of satisfaction rates were used to compare the formal faculty from two colleges. Results were used to determine whether to reject or not reject the null hypotheses.</td>
</tr>
<tr>
<td>$H_{a1}$: There is a significant difference in satisfaction rate with online faculty who have received formal faculty as compared with those who have received informal faculty mentoring at community colleges.</td>
<td></td>
</tr>
<tr>
<td>$H_{02}$: There is no significant in satisfaction rate with online faculty who have received informal faculty mentoring at community colleges.</td>
<td>A $z$ test of proportions of satisfaction rates were used to compare the informal faculty from two colleges. Results were used to determine whether to reject or not reject the null hypotheses.</td>
</tr>
<tr>
<td>$H_{a2}$: There is a significant difference in satisfaction rate with online faculty who have received informal faculty mentoring at community colleges.</td>
<td></td>
</tr>
<tr>
<td>$H_{03}$: The satisfaction level of online faculty at community colleges is independent of type of mentoring received.</td>
<td>A $\chi^2$ test of independence were used to test the hypotheses. Results were used to determine whether to reject or not reject the null hypotheses.</td>
</tr>
<tr>
<td>$H_{a3}$: The satisfaction level of online faculty at community colleges is dependent of type of mentoring received.</td>
<td></td>
</tr>
</tbody>
</table>
A telephone interview was conducted with faculty at the college that uses mentoring in its training program to give the researcher some understanding of their experiences with the mentoring process. Interviews were only conducted with online instructors who had taken the survey and who had completed the mentoring process at their institution. These telephone interviews were done randomly only with those instructors who had completed the mentoring process. These telephone interviews were done randomly only with those instructors who had completed the mentoring process. The researcher spent considerable time in the field to learn more about the mentoring and distance learning process used at the various institutions so that aspects of the mentoring programs could better be understood. As mentioned previously, an external auditor was given the final project to make an objective assessment of the results and to provide an outside appraisal to qualify the findings.

In this study, the level of significance is 0.05 (5%). A Normal Distribution was used to test the difference of proportions for each indicator (question) of the survey. The test statistic for the test was

\[ z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\frac{pq}{n_1} + \frac{pq}{n_2}}} \]

After the test statistic was calculated, the calculated value was compared with the Standard Normal Distribution table value. If the calculated test statistic fell in the rejection region (i.e. the calculated value is greater than the table value), the null hypothesis was rejected. To not reject the null hypothesis, there would have needed to
have been no significant difference between the population proportions. A p-value for the test was also determined and reported.

The secondary hypotheses addressing the degree of satisfaction versus the type of mentoring was tested using a $\chi^2$ (Chi-Squared) Test of Independence at the 5% level of significance for each indicator (question) of the survey. The test statistic was calculated using the formula

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

The test statistic was compared with the $\chi^2$ Distribution table value. To reject the null hypothesis, the calculated value would have had to fall in the rejection region (i.e., the calculated value was greater than the table value.) If there were no statistically significant relationship between the degree of satisfaction and type of mentoring, the null hypothesis was not rejected. A p-value for the test was also determined and reported for the chi square analysis.

**Data Analysis**

The qualitative information from the interviews, that is, the responses, were transcribed, and themes coded and tabulated for content analysis. A test of proportions compared the proportions of the results of both collection strategies to determine whether there was a significant difference in responses. The constant-comparative method (Glaser & Strauss, 1967) was used to “uncover and compare the perceptions and behavior patterns of individuals to reveal similarities and differences” (Hinson & LaPrairie, 2005, p. 487). This method uses four distinctive stages: comparing incidents applicable to each
category, integrating categories and their properties, delimiting the theory, and writing
the theory. This method “combines inductive category coding with a simultaneous
comparison of all social incidents observed” (Dye, Schatz, Rosenberg, & Coleman,
2000, p. 2).

Results from the Likert scale responses used during the survey were analyzed
using a test for difference of proportions that allowed each college sample to be
compared. NVivo® software was used to determine whether the samples differed
significantly. The null hypothesis was tested against the alternative hypotheses to
determine whether the null hypotheses could be rejected.

During the quantitative phase, frequency counts were used to analyze the survey
question responses. Anfara, Brown, and Mangione (2002) indicated that the constant-
comparative method aids in “identifying patterns, coding data, and categorizing
findings” (p. 31). Because two approaches were being used in the data collection
process, these forms of data analysis were beneficial in bringing together the findings
and the themes. In addition, because of the complexity of the interview transcripts, it was
further beneficial for the researcher to have a method that would provide code mapping,
which is a process of identifying and tagging the data. NVivo® software was further
used during the qualitative analysis to associate codes or labels with the text. This
process further allowed the data to be searched for patterns and to provide classifications
of codes during the analysis. Lastly, this form of analysis helped the researcher “achieve
the goal of generating plausible categories, properties, and characteristics of advisory
programs” (Anfara et al., p 33.).
Ethical Considerations

Ethics in research is important in all stages of research. Patton (2007) contends that “When planning research, it is imperative to consider potential harm to participants that might result from their participation.” This section will provide the steps taken to protect participants involved in the study.

Consent was obtained from the institutions in respect to gathering data at each college. Once this was done, IRB approval was processed through Capella University so that the data collection process could go forward. The study participants were contacted by e-mail and follow-up phone calls. Each participant was required to sign an informed consent form before the data collection could begin (see Appendix A). The informed consent form provided information to the participants about the purpose of the study, the expected duration of the survey and interviews, the data collection and analysis methods, possible risks and benefits associated with participation in the study, the confidentiality of records and data, and the researcher’s contact information and other pertinent information that the participants should know. The mentees were thoroughly informed about the process of the study (Creswell, 2003). All of the participants were asked to sign the informed consent form and each participant received a copy of the signed consent form. Participation in the study by online faculty was strictly voluntary, and the researcher ensured each participant understood completely that he or she was able to withdraw from the study at any time.

Anonymity was assured for those participants who took part in the survey and the interviews. Their identities were protected by the use of pseudonyms and the removal of
all identifiers during the collection of the qualitative data. The participants’ names were withheld from the responses to the questions during the telephone interviews. During the collection of the quantitative data, the participants’ names were disassociated from the survey responses during the recording and coding process. The researcher will keep the records from the study on file for up to 7 years, and the respondents will be allowed to review any data collected during the study. No participant information will be disclosed.

To ensure that the participants would suffer no harm by participating in the study, the researcher sought review and approval of the study by the IRBs of both colleges and Capella University. By following this protocol, federal regulations were followed to protect the human rights of the participants. The stakeholders of the colleges were informed of the regulations used to protect the participants. Vulnerable populations such as participants with disabilities, pregnant women, individuals who are mentally incompetent and other individuals who may be subject to harm by participating in the study were likewise protected. By virtue of the logistics of the study, such groups as minors were not be part of the study and thus were not impacted. Complete disclosure of all of the proceedings during the study to the participants avoided any misunderstandings or concerns.

**Validity and Reliability**

In determining the validity in research, Joppe (2000) stated:

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit “the bull’s eye” of your research object? Researchers generally determine validity by asking a series of questions,
and will often look for the answers in the research of others. (p. 1)

To ensure validity in this study, triangulation of data occurred through the use of multiple sources of data (Patton, 2007), namely, the survey and the telephone interviews. Member checks allowed the participants who completed the survey to go back and review the data results for accuracy (Creswell, 2003). To increase the validity with the qualitative data, the interview questions were field tested by experts who checked the questions for clarity, word choice, bias, and any other errors that they felt could affect the validity of the instrument. The researcher used rich, thick descriptions to present the findings (Creswell).

Joppe (2000) defined reliability as

The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. (p. 1)

The fact that the survey and the interview questions were administered at all institutions promoted the triangulation of the data and helped to maintain the stability of the data results (Golafshani, 2003). The themes that emanated from the qualitative data results thus remained consistent at each institution. The test-retest method was used with the survey by administering the same survey to some of the participants involved in the study. This was done to check the consistency of responses and establish the reliability of the instruments (Golafshani).
Summary

This mixed methods study was guided by a sequential explanatory design. The research sought to determine whether informal or formal mentoring is more satisfying for faculty who teach online at a community college. This study also ascertained what aspects of mentoring provide satisfaction for community college instructors preparing to teach online courses.
CHAPTER 4. DATA ANALYSIS AND RESULTS

Introduction

The purpose of this study was to ascertain whether formal or informal mentoring was more satisfying to online faculty who taught at three community colleges. In an effort to examine whether formal or informal mentoring was more satisfying to online faculty who teach at community colleges, two research questions were examined. The primary research question that guided this study was: Is formal or informal faculty mentoring more satisfying to online faculty at community colleges? The secondary question which guided this study was: Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?

As a result of these research questions, the following hypotheses were formulated:

H01: There is no significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.

Ha1: There is a significant difference in satisfaction rate with online faculty who has received formal faculty mentoring at community colleges.

H02: There is no significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.

Ha2: There is a significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.

H03: The satisfaction level of online faculty at community colleges is independent of type of mentoring received.

Ha3: The satisfaction level of online faculty at community colleges is dependent
of type of mentoring received.

This chapter reveals the results and an analysis of the quantitative and qualitative data used in the study. Furthermore, rationale is provided as to why the original proposed analysis could not be implemented on the data collected.

**Study Sample Demographics**

A sample of 23 participants, which consisted of faculty that teach online courses at three Community Colleges in Southern California, participated in the study. Confidentiality and privacy were explained and participants reviewed and signed the informed letter of consent before responding to the survey and the interview questions. In order to qualify in the study, the participant must have either been formally or informally mentored and teaching an online class at that college prior to or during the study. The study sample used from the three colleges originally included 27 participants. Four of the participants were not qualified to participate due to the fact that no mentoring was involved in their training. As a result 23 participants were included in the results as Table 3 indicates. Table 3 shows the frequencies and percentages for gender, years of teaching experience online, and educational level for participants from the three subject colleges.

More participants were involved in informal rather than formal mentoring. Table 3 indicates that there were almost an equal number of males ($n = 12$) and females ($n = 11$) participating in the study. More males participated in informal mentoring than formal mentoring. More females (43%) also participated in informal mentoring than formal
mentoring (see Figure 1).

Table 3

*Frequencies and Percentages for Education Level, Years Teaching Online, and Gender*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Formal mentoring (n = 9)</th>
<th>Informal mentoring (n = 14)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4 (44%)</td>
<td>8 (57%)</td>
</tr>
<tr>
<td>Female</td>
<td>5 (56%)</td>
<td>6 (43%)</td>
</tr>
<tr>
<td><strong>Years of Teaching Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yrs teaching online &lt;1yr</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Yrs teaching online 1-2 yrs.</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Yrs teaching online 3-4 yrs.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Yrs. teaching online 5+ yrs.</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>PhD</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
Figure 1. Gender and frequency of the study sample.

In terms of teaching experience of all participants, most online faculty involved in the study had taught for more than five years (11); 48% of all participants had taught for five or more years. Fifty percent of the informally mentored group had taught online compared to 44% of the formally mentored group. There were no participants who were informally mentored and had taught less than one year online. It should be noted that one third of participants had less than one year of formal mentoring (see Figure 2).
As seen in Table 3, 79% of participants in the study had a master’s degree ($n = 19$). In discussing the education level of participants, those who had been informally mentored and had a master’s degree were the majority ($n = 11$) in the study. The number of participants holding a Ph.D. and informally mentored ($n = 3$) was greater than those participants holding a Ph.D. and formally mentored ($n = 1$). Figure 3 illustrates the distribution of participants’ educational level by mentoring group. The demographic data provided will be considered in the implications of the study, and will further provide insight into what variables may have contributed to the results of the study.

Figure 3 demonstrates that there were more participants holding a Masters’ degree ($n = 11$) compared with those faculty holding a doctorate ($n = 3$).
The proposed statistical analysis, the test of proportions to address the research questions and test the hypotheses could not be performed due to insufficient sample size. To encourage participants to respond, various methods were used such as emailing, calling by phone, or having a supervisor contact the faculty member in order to provide him/her information about the study. Instead of the proposed analysis, descriptive data from the surveys in conjunction with qualitative data obtained from the interviews were used so as to address the primary research question of this study.

**Analysis of Survey Data**

According to Brown and Berman (2007), descriptive statistics “will allow you to describe and compare your variables numerically” (p. 53). The descriptive data from this study answered the secondary research question, *Is the degree of satisfaction with online
faculty at community colleges dependent on the type of mentoring received, formal or informal? The data from the online survey were analyzed with regard to this question. Participants were allowed to access the survey after completing the informed consent form. The questions from Appendix B were used in the survey. The descriptive data were analyzed by using Microsoft Excel ® spread sheets. This program allowed means, standard deviations, and percentages to be extracted and analyzed.

**Analysis of Interview Data**

In order to address the research questions, qualitative data were collected from the comments made by participants in the survey and the telephone interviews. Participants signed informed consent forms before responding to the survey and the interview questions. Participants were notified that the interview would be audio recorded. The questions from Appendix C were used for the interviews. A total of 11 faculty participated in the phone interviews. Three of these were male and eight were female.

During the qualitative analysis the following steps were followed. In step one the data were transcribed by using Express Scribe® Transcription Software. All questions and responses were transcribed during this process. Transcriptions were reviewed for errors that might have occurred during the interpretation of the audio. During step two separate themes were developed from the phone interviews and the text from the survey responses. Mock names were provided as pseudonyms for each participant in an effort to provide privacy. In step three the software program NVivo® was used to code the data. Line-by-line open coding was implemented using the constant comparative method (Glaser, 1965). This method is used to compare codes with text and codes with
other codes in an effort to generate themes. With this constant comparative approach a theory was developed. In step 4, the consistency of the coded data was checked by examining and checking sample text against codes that were developed. Rules of coding were also evaluated to make sure that all coding was done with the correct guidelines. After consistency was checked and the application of rules deemed consistent, the remainder of the text was coded as per the guidelines in step 5.

At the end of the coding, the categories and sub-categories were checked for consistency. Codes were merged with other codes if they were relevant to one another. Per the guidelines for step 6, inconsistency can change over time (Miles & Huberman, 1994). During step 7 themes or categories were identified. Inferences and reasoning was used to identify relationships and patterns amongst the categories. The constant comparative method was used in order to report the method (step 8) used for the analysis. Findings were also discovered as themes were developed and as themes were compared with the results from the descriptive data. In addition, comments from the survey results (see Appendix B) provided by participants were analyzed in the qualitative analysis section.

**Results**

Due to insufficient sample size, the hypotheses could not be tested statistically. Instead, trends or themes from the interviews and the surveys were explored to determine if a difference in satisfaction level was suggested from the study. This section will provide an in depth review of the findings pertaining to the study.
Results of Primary Research Question

Is formal or informal faculty mentoring more satisfying to online faculty at community colleges?

Data from the survey and the interviews were analyzed to answer the research questions (see Tables 1 and 2). Both content analyses of transcripts and statistical analysis of items from the survey responses were used to identify satisfaction with mentoring received. First, results of content analyses will be discussed. Then the results of the descriptive statistical analyses of the survey items will be presented. Finally, participant responses obtained from both interviews and surveys will be compared and a summary of their responses will be presented for the primary research question.

In order to answer the primary research question, qualitative data were collected from the comments made by participants in the survey, as well as the data provided in the phone interviews. As a result of the coding of the text from the interviews and the survey; themes were developed so as to further address the following research question: Is formal or informal faculty mentoring more satisfying to online faculty at community colleges? Line-by-line open coding was implemented using the constant comparative method. Specifically text was reviewed line-by-line: codes were set up, and codes were compared to other codes in order to develop themes. Modification was provided as needed for themes, and the themes were saturated when no new codes related to existing codes could be found. Coding consistency was rechecked and conclusions were drawn from coded data (Zhang and Wildemuth, 2009). Table 5 shows the themes and sub-themes identified. The themes were developed so as to further address the following
research question: Is formal or informal faculty mentoring more satisfying to online faculty at community colleges? The major themes related to formal mentoring, satisfaction with a mentor, and informal mentoring.

Table 4.

Summary of Themes from Data

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal mentoring</td>
<td>Design classes more effectively</td>
</tr>
<tr>
<td></td>
<td>First or initial training beneficial</td>
</tr>
<tr>
<td></td>
<td>Improve technology abilities</td>
</tr>
<tr>
<td>Satisfaction with a mentor</td>
<td>Always there to help with anything</td>
</tr>
<tr>
<td></td>
<td>Feedback</td>
</tr>
<tr>
<td>Informal mentoring</td>
<td>Faculty get together to figure things out</td>
</tr>
<tr>
<td></td>
<td>Prefer informal mentoring</td>
</tr>
<tr>
<td></td>
<td>The mechanics of it</td>
</tr>
<tr>
<td></td>
<td>Running into problems</td>
</tr>
<tr>
<td></td>
<td>Some good elements</td>
</tr>
</tbody>
</table>

**Formal Mentoring**

Information was gathered about characteristics and value of formal mentoring and how the mentoring benefited the mentee. The following sub-themes emerged from the data (a) “design classes more effectively,” b) “first or initial training beneficial, “and (c) “improve technology abilities”. Formal mentoring helped faculty to design classes more effectively, was beneficial at first as initial training, and helped to improve faculty technology abilities. Discussion of these sub-themes follows.
**Design classes more effectively.**

Of concern to the mentees in the study was the aspect of designing online classes that were effective in teaching students. In speaking about designing classes in formal mentoring, Brenda mentioned:

Well, it gave me the basic framework of how to set up a class and, you know, how to enhance my class through our online services, and provided me with additional resources that I could use in my online class that I wouldn’t necessarily have access too if I were just teaching the class without the web-enhanced instruction.

From this response it is clear that structure was important to Brenda in teaching an online class. Mark also felt that having structure in mentoring was beneficial when he says:

Well, I guess both of them have advantages. Well, I guess if I had to pick between them, I would say the formal, and the reason for that is the fact that there would be more structure to the mentorship training, and that would be helpful.

Sam also felt that the mentoring experience helped him design classes and become a more effective online instructor. He stated:

Any kind of mentor situation is going to teach you something. I mean, I got exposure to different online platforms and, you know, made contact with the other online students in the class through discussions and chats, and you know, by so doing, largely gained facility with different platforms. So all of that came as part of the whole experience.

Mentoring to Sam then not only improved his ability to design classes but he also
felt that it increased his knowledge about teaching online. Finally, Mark shares his ideas on the effectiveness of the mentoring relationship. He stated:

I thought it was very, very helpful. It helped familiarize me with the type of students that attend RCC, familiarized me with the systems in place to provide the education to the students, and familiarized me with that. That was very helpful. Also, it was very helpful in just facilitating online classroom learning. It was different for me. I was new to that; it was a new format for me, and working very closely with my mentor was very beneficial.

From this response it is evident that Mark was better able to familiarize himself with teaching online and that mentoring played a key role in this effort.

**First or initial training beneficial.**

An area of importance that emerged from the data were that faculty felt that their initial mentoring was effective and helped them to progress in learning to teach online.

Mentees were left on their own to figure things out when they could have used continual coaching and guidance. Mary indicated this by stating:

I think that there was just one set of mentoring activities, and then they kind of let you go. And I think that it would be better if we had more ongoing mentoring, like someone that you could call if there were an issue you didn’t know how to handle. Most people don’t have that available, so I think the initial mentoring part was great, but you know, after it ended, because it was a formal process, then you were kind of hung out to dry to figure out how or what you needed to do next, if there was an issue that comes up. And they provided resources for that, but I think it would be nice if that relationship went on for a little bit longer.

Mary highlights that fact that “ongoing” mentoring is beneficial to the mentee because problems and questions arise amongst mentees and they need someone to go to
that can answer questions that they might have. Formal mentoring tends to be contractual and relationships end after the contract ends. This can create problems for mentees who may have challenges and issues long after the initial mentoring has occurred.

These initial encounters between mentor and mentee can be very beneficial and the things learned can be used long after the mentor/mentee relationship ends. Sam noted this by stating:

So I was one of five people, who put together the first English 101 online course for this consortium, and I got my first formal training with them, and also with an online course from another college [name removed] that was kind of an offshoot of working with this consortium. Now, how did it allow me to achieve my goals? Well, it taught me how to do it, for one thing, and it gave me some pointers, which I still carry on in my online teaching today, and I constantly have occasion to remember some things that were said in those first years.

It would seem from this response that the participant is indicating that a lot depends on the effectiveness of the mentoring program as to whether or not the mentee would remember what he or she learned.

Finally, Sam provided a response which indicated that he was satisfied and that the initial formal mentoring was retained and used. He stated: “Quite satisfied. As I say, I am still putting into practice some of the things I have learned from them.”

**Improve technology abilities.**

Another important area which mentees felt was of importance was understanding technology better and using it in their courses. Being able to use Blackboard along with understanding how to use such items as discussion boards were deemed as important for mentees to learn. John indicated that:
Well, one of the things that I asked about was that I had set up modules, and wanted the veteran online teacher to look at that and let me know if what I had constructed was appropriate and would need to go over the head in terms of organization and in trying to package the material for the students, and I think that the feedback I got was very useful and helpful to fine tune those modules. I also had some questions about Discussion Board and how I would set up the grading with the Discussion Board, and he was very useful in providing me with some insightful suggestions and also some feedback about his experiences with Blackboard and with Discussion. So it was very useful for me.

From this response it seemed that John had concerns about how to use elements of Blackboard and that his mentor was able to provide valuable insight on how to use such items. Certainly lack of training in this area might prove disastrous to a faculty member new to teaching online. Nancy further confirmed that mentoring helped in improving technology for her when she stated:

Oh, I think it helped me. Because when I started teaching online, I was new to the system of Blackboard, and even the whole concept of teaching online period. So it definitely helped me to improve my technology abilities and, you know, try to put other features into the classroom, like use PowerPoint and maybe videos or something else that I can add to it, so I think it did improve my technological abilities.

Nancy added that not only was it helpful in improving her abilities with Blackboard but it also improved her skills with PowerPoint and videos. Thus in these cases, mentoring helped to close the gap of digital divide and provide needed guidance with technology in designing the course.

Mary’s response indicates she is knowledgeable about technology however she feels that those she has mentored have the need to learn about technology. She states:
Not really. Um. It’s kind of funny, because I still keep in contact with my mentor from the other university [name removed]. It has been 11 years, but yeah, I’m pretty technologically savvy. I mean, I get how to figure things out, so that wasn’t really a big issue for me. But as I have mentored other people at this college [name removed], that’s mostly what it has been about, is the technology, the other end of it.

**Satisfaction with a Mentor**

Concern for how satisfied the mentee was with their mentor was of utmost importance in answering the primary research question of whether the mentee was more satisfied with the formal or informal mentoring relationship. There appear to be numerous variables that assist in reaching a conclusion regarding this question. Sub-themes such as “always there to help with anything,” “feedback,” and “go to mentor with questions or problems” were all pertinent for this theme.

**Always there to help with anything.**

A key area of satisfaction was that the mentor was available when the mentee needed help with something. In the following response, Nancy confirms the help she received from her mentor:

> Very satisfying. Even to this point, I am able to go to my mentor with any questions or problems that I have, and she is always there, willing to help me with anything that I need. So I am very satisfied.

Nancy again confirms this again with another response during the interview:

> I would have to say the mentor’s willingness to help me at any given time without me feeling like I am bothering her or even if it was the same issue I had at home, and “O my God, I forgot how to do this on Blackboard,” or you know, “Can you
help me?, and it was a question that was repeated, there was never an “O my God, here she comes again.” So I just felt her willingness to help and be there to problem solve with anything I had.

Nancy’s satisfaction seems to be increased when she says “the mentor’s willingness to help me at any given time without me feeling like I am bothering her or even if it was the same issue I had at home.” The willingness of the mentor appears to be key to satisfying the mentee in given situations.

John also provided insight on the necessity of having his mentor available when he states:

But I trusted the administration and the professional development office to, you know, find a suitable candidate. I wasn’t worried about that. But again, my philosophy isn’t always that it’s best to find somebody that, rather than being assigned someone, to find someone that you are able to find.

Being “able to find” a mentor when a mentee needs help emerged as an important component of satisfaction to the participants in the study. Mark provided a response which indicates that a mentee needs to have a mentor as well as the services readily available. He stated:

I would say in regards to the process, make sure that the individual who is being mentored, and make sure that the support is there for that individual. Be sure that it’s there; don’t say that it is, and then they reach out and it’s not available. Make sure if you say you are going to provide support and services, make sure that they are there when they are needed.
Feedback.

Another area of satisfaction which surfaced from the interview responses was how feedback helped mentees to become more effective online instructors. John indicates that feedback was helpful to him by saying:

I also had some questions about Discussion Board and how I would set up the grading with the Discussion Board, and he was very useful in providing me with some insightful suggestions and also some feedback about his experiences with Blackboard and with Discussion. So it was very useful for me.

From John’s response it is apparent that the mentor’s feedback was useful and that the mentor acted as a “sounding board” in providing guidance to the mentee. The experience of the mentor helped as well as “insightful suggestions” are provided to John. Two other factors which play a part with feedback are receiving assistance from someone outside of your discipline and experience. John further responded by stating:

I think the knowledge of the instructor and his experience. He was an instructor in the Philosophy department, and that was his degree and his emphasis, so it was interesting to get some feedback from that perspective. I was very satisfied with I think being able to work with somebody outside of my discipline.

This would show that getting feedback from an instructor in another discipline would provide a new perspective and was welcome to the mentee. Knowledge and experience also enhanced the satisfaction of the mentee’s experience per the statement by John. Mary confirmed what John stated:
I was most satisfied with the feedback. I got immediate feedback, meaning if I did something that didn’t fit the model that they were trying to teach, or it didn’t work; I got immediate feedback from the person within like 24 hours, saying, “Hey. You know, you probably could have done this a little bit better.” Or “Hey, you did a great job doing this.” So I think the feedback is one of the key things, that that someone who kind of watches and mentors you should be able to give you good, constructive feedback.

From this response it is evident that not only is feedback important in the mentor/mentee relationship, but “immediate” feedback that was “constructive” helped in providing satisfaction to the mentee. Immediate should occur within 24 hours according to Mary. Constructive feedback comes in the form of helpful feedback that helps the mentee to improve.

**Informal Mentoring**

Responses about informal mentoring varied during the interview and survey. Themes that came up from analysis included, (a) “Faculty get together to figure things out,” (b) “Prefer informal mentoring,” (c) “The mechanics of it,” (d) “Running into problems,” and (e) “Some good elements”. Because informal mentoring is less structured and faculty does not have assigned mentors, the new theme of “Faculty get together to figure things out” was unique and different from that of formal mentoring.

**Faculty get together to figure things out.**

Sally points out a major benefit about informal mentoring by stating:

I think that with the formal relationship, it is not always matched up with somebody who is from your discipline, at least that’s the way it has been at our college. We do have mentor programs for all kinds of things, and people team up
with people from other areas, so I think that when you can speak the same language about something, it makes it a lot easier too. And I don’t know how to explain it. But it feels much more interpersonal than a formal relationship where you put two people together who didn’t really know each other.

Matching mentor and mentee can be problematic when one is outside of the other’s discipline. Sally would emphasize that not only can matching be an issue but also the fact that “when you can speak the same language about something,” it can help to provide an easier relationship and can reduce conflict. Wendy provided insight on how informal mentoring operates, when she said:

We used to have something; this was like ten years ago. We would have like sometimes getting together two or three faculty who were the same as me, trying to figure all this out and we would talk about what each of us were doing. So, you know, we would share what each of us was doing.

The factor of having more than one mentor can have its benefits according to Wendy. Having more than one faculty member to provide feedback and guidance and more resources would improve availability for the mentee than just having one mentor to contact. Wendy further confirmed her support for having multiple mentors by saying, “Oh, it was great. It was great, because we were all in the same, and we were all sharing, so very satisfied.”

Her statement of “all in the same” could possibly mean that all faculty were all in the same situation teaching online classes and sharing mentors. Being able to validate and provide further insight to questions and problems that each might have would prove
beneficial. From this, it seems that informal mentoring could also provide more flexibility for faculty to go to others who have not been assigned to them as their mentor.

**Prefer informal mentoring.**

The preference of informal mentoring over formal mentoring was brought up by some participants during the interviews. These responses further helped in providing reasons why informal mentoring might be more beneficial than formal mentoring. Karen stated:

I think that there would be less pressure. As a faculty member, I like to design classes according to my own teaching style, and I just would be worried that I might have pressure that I couldn’t do it the way I think that it needed to be done.

Karen felt that there was more pressure with formal mentoring and that she wouldn’t be able have the freedom of designing classes the way she liked to design them. For her, freedom to use her own pedagogy in designing her classes was of great significance in the mentoring process. Karen further related the importance of informal mentoring in a different response by saying, “Well, it helped me I guess with the structural set up of the lessons and assessments and discussion board, that kind of thing.”

Janice also provides her opinion about informal mentoring. She stated:

Very satisfied, because I am comfortable with whatever. I mean, he was pretty open about sharing his syllabus, and the strategies that he utilized in class, and he allowed me to go to class, and he was a very good mentor. But it was more traditional teaching style.
A common thread between Karen and Janice was being able to adhere to their own teaching style and not someone else’s. It is very obvious that Janice was satisfied with the informal mentoring approach and pleased with her mentor.

Lastly, Sally helped confirm the idea of satisfaction with informal mentoring by saying: “Really satisfied, and with what I was unable to get from her, I easily figured out on my own, so it worked out fine.”

**The mechanics of it.**

Like formal mentoring, indications of being able to understand how to set up assessments and discussion boards were of importance during the informal mentoring relationship. The “mechanics of it” seemed to be an important ingredient in understanding how to design online classes.

Janice helped to confirm the importance of informal mentoring in her response when she said:

I feel much more confident to become a professor, and at least I got an idea about classroom management strategies. I mean, you had to do it, but it reinforced me, and it kind of lowered my anxiety, and my concern about performing my classroom management issues.

Building confidence and helping to reduce anxiety was of importance to Janice. She also gained further understanding of classroom management strategies and how to use them in the online environment.
Karen emphasized the importance of learning the “mechanics” of teaching online when she said: “Well, it helped me I guess with the structural set up of the lessons and assessments and discussion board, that kind of thing. So the mechanics of it.”

Janice shared her experience of learning specific tools such as PowerPoint when she stated:

Well my mentor at that time just used PowerPoint. He didn’t use the internet a lot. So I would say not that much. During that time of the program. And then as the years went by, I continued with him and with other mentors or other people, and learned how to use that. So I learned from them.

From this response we can also see the need for multiple mentors and how others can provide continued assistance to mentees.

**Running into problems.**

Informal mentoring is not as organized as formal mentoring and can leave the mentee trying to find a mentor who can best handle problems that mentees encounter. In her response, Sharon provided confirmation of this by saying:

Well, lots of times I would have these big visions of how I would like my online class to look, and I find that I run into a lot of brick walls with that, because nobody’s exactly sure how to do what I want to do.

This suggests that without having an organized mentoring program mentee’s questions can remain unanswered and often the instructor becomes discouraged in what they hope to accomplish in the online environment. Another problem may be setting up a
meeting time which is conducive to both mentor and mentee. Sally indicated this by saying:

That’s a tough one. Probably the only thing, and I think this could happen in a lot of cases, is when you can’t meet because things get in the way, so sometimes my schedule got held up by meetings that would come up and prevent us from getting together. Outside forces beyond our control.

Of course, this problem can occur in formal mentoring as well, however, a mentoring relationship that lacks organization can hinder the progress for the mentee. These are just some of the issues that participants mentioned in relation to dissatisfaction with informal mentoring.

Sally confides that some of the things she was taught didn’t really pertain to her discipline. She stated:

So a lot of the stuff that they were doing did not apply to my discipline, but some of the things helped me, and you know, like adaptive release on Blackboard, so not everybody would see their own answers, and things like that that I wasn’t doing, so I started applying those.

Again this problem could arise in formal mentoring and so it is important that both the mentor and mentee are clear on what is relevant to the training which takes place.

**Some good elements.**

Participants also indicated that informal mentoring provided some elements with which they felt satisfied. Although not related to the type of mentoring that occurred,
Wendy claims the following: “I don’t think there was just one thing. I think finding out new ways of presenting things online. That would be it.”

Wendy was satisfied many things and that learning “new ways of presenting things online” was just one out of many. Janice further confirmed this by saying:

Very satisfied, because I am comfortable with whatever. I mean, he was pretty open about sharing his syllabus, and the strategies that he utilized in class, and he allowed me to go to class, and he was a very good mentor. But it was more traditional teaching style.

Although Janice’s ideas on satisfaction were similar to Wendy’s ideas, Janice seemed to be very satisfied with the openness of the mentor. The fact that the mentor was “open about sharing his syllabus” made a difference to Janice’s attitude about mentoring.

Sharon on the other hand was just happy with the availability of a mentor. She stated, “Well, if I got stuck and I didn’t know how to make something happen, I was satisfied with the ability to ask somebody to show me how to make it happen.”

Availability seems to be a similar issue of satisfaction for both informal and formal mentoring. Sharon suggested that having an expert to go to would provide more satisfaction. She indicated this by stating:

It was good. I feel like it would be great if we had some kind of guru specialist who just understood all kinds of multi-media applications and was able to sit with us and show us different ways in which to incorporate it. We don’t really have anything like that. So I always felt like I was wanting more, but the simple things that I needed help with were definitely answered, and I appreciated that.
This was further confirmed by Karen when she stated, “The technical help, like how do I get the document uploaded, or, if it’s showing in the center and not showing on the side, that kind of thing.”

The problem of not having a “guru specialist” could just be a situational problem for that particular college and may not be a reflection to all community colleges. Having someone on campus who has this expertise can help reduce anxiety and provide more insight, guidance and increased satisfaction for online instructors.

Some participants either were not consistently mentored or were satisfied with both forms of mentoring. Wendy stated:

I learned all by myself. I started a long time ago, and at that time in the college, we didn’t have any formal or informal training, so I just learned Blackboard on my own, and I took a few training sessions from Blackboard. But I didn’t have a mentor per se or learn how to teach online.

This situation indicates that a mentoring program did not exist at the time of training and the participant was left to herself to learn Blackboard. Another possible reason for not choosing to be mentored could be choice of learning style. Janice stated that she is “comfortable with both”. Possibly each type of mentoring would be suitable depending on mentoring topic or situation. It is clear that even multiple mentors would work in some situations.

The results from the survey and interview questions indicated that both formal and informal mentoring to a certain degree provided satisfaction to online faculty. In their responses Brenda, Nancy, Mary, Sam and John all have positive comments about
the formal mentoring process. On the other hand Sally, Wendy, Karen, Janice, and
Sharon all provided positive feedback about the informal mentoring process. This is not
to say that both formal and informal mentoring were not without their problems.
Responses from Mary, Wendy, Sharon, and Sally all demonstrated that some problems
arose during the mentoring process.

Secondary Research Question

The secondary research question was, Is the degree of satisfaction with online
faculty at community colleges dependent on the type of mentoring received, formal or
informal? This question was addressed using the survey responses. In this section,
frequency tables which examine how respondents from each group answered the survey
questions are presented. The item responses which contributed in answering this question
included items 1-11 on the survey. A sample size of 23 participants was used in
gathering the data needed to answer the RQ2.

Mentoring and Achievement of Professional Goals

Two survey items examined whether mentoring led to achievement of
professional goals. The first survey item addressed whether participants felt mentoring
enhanced faculty’s online teaching goals. Table 5 includes the frequencies and
percentages of responses for this item by mentoring group. For the formally mentored
group, 78% of the responses were consistent (both responses the same), with a majority
being in agreement. However, two of the responses were inconsistent. For the informal
group, 100% of the responses were consistent, with a majority being in agreement.
Table 5.

*Frequency and Percentages for Professional Growth by Mentoring Group*

<table>
<thead>
<tr>
<th>Q3</th>
<th>Mentorship participation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informal</td>
<td>Formal</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>2 (14%)</td>
<td>1 (11%)</td>
<td>3 (13%)</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>12 (86%)</td>
<td>8 (89%)</td>
<td>20 (87%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14 (100%)</td>
<td>9 (100%)</td>
<td>23 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Question #3: I have grown professionally as a result of my participation in this mentoring experience.

The next survey item addressed whether participants felt mentoring enhanced faculty’s online teaching goals. Table 6 includes the frequencies and percentages of responses for this item by mentoring group.

Table 6.

*Frequency and Percentages for Career Goals by Mentoring Group*

<table>
<thead>
<tr>
<th>Q6</th>
<th>Mentorship participation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informal</td>
<td>Formal</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>2 (14%)</td>
<td>4 (44%)</td>
<td>6 (26%)</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>12 (86%)</td>
<td>5 (56%)</td>
<td>17 (74%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14 (100%)</td>
<td>9 (100%)</td>
<td>23 (100%)</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Question #6: I feel that mentoring is helping me achieve my career goals.
Teaching Goals and Students’ Success Rate

Question seven addressed whether participants felt mentoring enhanced faculty’s online teaching goals. Table 7 includes the frequencies and percentages of responses for this item by mentoring group.

Table 7.

Frequency and Percentages for Teaching Goals by Mentoring Group

<table>
<thead>
<tr>
<th>Q7</th>
<th>Mentorship participation</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Informal n (%)</td>
<td>Formal n (%)</td>
<td>Total n (%)</td>
</tr>
<tr>
<td>Disagree</td>
<td>5 (36%)</td>
<td>1 (11%)</td>
<td>6 (26%)</td>
</tr>
<tr>
<td>Agree</td>
<td>9 (64%)</td>
<td>8 (89%)</td>
<td>17 (74%)</td>
</tr>
<tr>
<td>Total</td>
<td>14 (61%)</td>
<td>9 (39%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

Note. Question #7: I feel that mentoring is helping me enhance my online teaching goals.

The next survey item addressed whether participants felt mentoring enhanced faculty’s ability to increase student success. Table 8 presents the frequencies and percentages of responses for this item by mentoring group. Four of the participants felt that mentoring did not enhance their online teaching or student success. However, for most participants the consistent responses of agree-agree or disagree-disagree are greater than the inconsistent responses of disagree-agree.
Table 8.

*Frequency and Percentages for Students’ Success Rates by Mentoring Group*

<table>
<thead>
<tr>
<th></th>
<th>Mentorship participation</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informal</td>
<td>Formal</td>
<td>Total</td>
</tr>
<tr>
<td>Q9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>4 (29%)</td>
<td>1 (11%)</td>
<td>5 (22%)</td>
</tr>
<tr>
<td>Agree</td>
<td>10 (71%)</td>
<td>8 (89%)</td>
<td>18 (78%)</td>
</tr>
<tr>
<td>Total</td>
<td>14 (61%)</td>
<td>9 (31%)</td>
<td>23 (100%)</td>
</tr>
</tbody>
</table>

*Note.* Question #9: I feel that mentoring is helping me increase my students’ success rates.

**Level of Satisfaction**

The degree of satisfaction for the groups was examined through items 10 and 11 of the survey. The responses to these survey questions directly relates to second hypotheses which states, “There is no significant difference in satisfaction rate with online faculty who has received informal faculty mentoring at community colleges.”

The first survey item addressed whether participants felt mentoring enhanced faculty’s online teaching goals. Table 10 includes the frequencies and percentages of responses for this item by mentoring group. The category of “Satisfaction level” used a Likert scale for participants to respond to. The scale included strongly disagree (SD), disagree (D), agree (A), strongly disagree (SD), and no response.

There is not a significant difference between formally and informally mentored faculty in terms of overall satisfaction of mentoring received. Eighty-nine percent of formally mentored faculty were satisfied with the overall quality of mentoring, whereas
92% of informally mentored faculty were satisfied with the overall quality of mentoring.

Table 9.

*Frequency and Percentages for Satisfaction with by Mentoring Group*

<table>
<thead>
<tr>
<th>Satisfaction level</th>
<th>Formal Mentoring n (%)</th>
<th>Informal Mentoring n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1 (11)</td>
<td>1 (8)</td>
<td>2</td>
</tr>
<tr>
<td>Agree</td>
<td>3 (33)</td>
<td>5 (42)</td>
<td>8</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5 (56)</td>
<td>6 (50)</td>
<td>11</td>
</tr>
<tr>
<td>No response</td>
<td>0 (0)</td>
<td>2 (0)</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9 (100%)</strong></td>
<td><strong>14 (100%)</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

Note. Question #10: How satisfied are you with the overall quality of the formal mentoring program? Question #11: How satisfied are you with the overall quality of the informal mentoring program?

**Survey item analysis**

Tables 11, 12, and 13, will address the means and standard deviation for each survey item. As previously noted, the scale included a Likert scale which rated 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly disagree*. 
Table 10.

Means and SD for Questions 1-4

<table>
<thead>
<tr>
<th>Question</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>Question 1</td>
<td>Formal</td>
<td>3.3</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>3.0</td>
<td>0.78</td>
</tr>
<tr>
<td>Question 2</td>
<td>Formal</td>
<td>3.4</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>3.4</td>
<td>0.50</td>
</tr>
<tr>
<td>Question 3</td>
<td>Formal</td>
<td>3.4</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>3.2</td>
<td>0.70</td>
</tr>
<tr>
<td>Question 4</td>
<td>Formal</td>
<td>3.2</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>3.1</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Questions 5-8 used a Likert scale which rated 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly disagree. Undecided was not used as a response in order to force preference on choices offered.

The results indicate that both formal and informal mentoring group responses were very similar (see Table 12). The results could vary depending on the sample size as well as other situational factors. The means and standard deviations for these questions can be found in Table 12.
Survey questions five and six state “Based on my experience as a mentee, I would volunteer as a mentor” and “I feel that mentoring is helping me enhance my online teaching skills.” The results for these two questions show that the formal standard deviation is larger ($SD = 0.93/1.88$) than the informal mentoring responses ($SD = 0.55/0.55$) with more variance. The means and standard deviations for these questions 9-12 can be found in Table 13.
Table 12.

*Means and SD for Questions 9-12*

<table>
<thead>
<tr>
<th>Question</th>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>Question 9</td>
<td>Formal</td>
<td>3.2</td>
<td>0.97</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>2.9</td>
<td>0.73</td>
</tr>
<tr>
<td>Question 10</td>
<td>Formal</td>
<td>3.4</td>
<td>0.73</td>
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<tr>
<td></td>
<td>Informal</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Question 11</td>
<td>Formal</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>2.9</td>
<td>1.38</td>
</tr>
<tr>
<td>Question 12</td>
<td>Formal</td>
<td>3.6</td>
<td>0.53</td>
</tr>
<tr>
<td></td>
<td>Informal</td>
<td>3.2</td>
<td>0.45</td>
</tr>
</tbody>
</table>

For all questions, the mean response for the formal group is greater or equal to the mean response for the informal group except for Question 8 "I would recommend mentoring to my colleagues." The standard deviation for the responses for the formal group is greater than or equal to the SD for the informal group except for Question 7 "I feel that mentoring is helping me enhance my online teaching goals." The largest difference between group standard deviations is in Question 6 "I feel that mentoring is helping me achieve my career goals." The dashes for questions 10 and 11 indicate a lack of response by participants. Question 10 states “I have a better appreciation for aspects of teaching online as a result of my participation in this mentoring experience” and question
11 states “Based on my experience as a mentee, I would volunteer as a mentor.” A reason for this occurring might be because the participants didn’t understand the wording of the question or that they felt the question did not apply to them.

Summary

The purpose of this study was to ascertain whether formal or informal mentoring is more satisfying to online faculty who teach at community colleges. The first research question asked “is formal or informal faculty mentoring more satisfying to online faculty at community colleges?” The qualitative analysis part of this study focused on interpreting and providing further insight on this question. The findings indicated that participants did not have polarized responses but rather had some degrees of satisfaction and dissatisfaction with both types of mentoring. Survey results indicated a slight preference for formal mentoring (see Tables 11, 12, and 13). However this hypothesis would need to be statistically tested in order to determine if this is true and sample size did not allow for this. The qualitative results indicated that respondents were very similar in degree of satisfaction.

The secondary question asked “Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?” Faculty who received both formal and informal mentoring reported satisfaction with their mentoring. The participants agreed that all mentoring that occurred helped them in some way to teach more effectively online. The findings indicated that neither group was strongly dissatisfied with the mentoring that they received. The degree of satisfaction of
online faculty with their mentoring could not be determined because the small number of faculty respondents was insufficient to allow for quantitative analysis, as planned.

Chapter five discusses conclusions, limitations, and recommendations based on the study findings presented in this chapter.
CHAPTER 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This study examined how satisfied online faculty at community colleges were with formal and informal mentoring. The research questions answered in the study were:

1. Is formal or informal faculty mentoring more satisfying to online faculty at community colleges?
2. Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal?

In answering these questions, an online survey was used to gather the descriptive statistics and phone interviews were conducted in order to collect qualitative data. Data were analyzed from a total of 23 participants who completed the online survey responding to a total of 15 questions. Each question was set up using a four-point Likert scale. Another 11 participants responded to telephone interviews. As a result of both of these approaches, data were merged and compared so as to identify the degree of satisfaction between online faculty that were formally or informally mentored. The data showed that there were similarities in satisfaction and type of mentoring of online faculty participants in this study.

Conclusions

Research question 1: Is formal or informal faculty mentoring more satisfying to online faculty at community colleges?
The results indicated that both formal and informal mentoring group responses were very similar. Individual interview responses also provided indications of this similarity. For example, Participant Brenda stated that, “... it gave me the basic framework of how to set up a class and, you know, how to enhance my class through our online services, and provided me with additional resources.” Other participants such as John also displayed signs of satisfaction with formal mentoring when he said “it was very useful to me”. Participant Sam was also satisfied with the formal mentoring process, when he said that, “...it taught me how to do it, for one thing, and it gave me some pointers, which I still carry on in my online teaching today …”

Indications from interviews showed that participants who were either formally or informally mentored seemed to both be satisfied with their mentoring experiences. In addition, participants stated that mentoring was not perfect and that a certain degree of dissatisfaction could also be demonstrated. Some online faculty, such as Sharon, expressed a need for a more structured mentoring experience than informal mentoring “because nobody’s exactly sure how to do what I want to do.” Informal mentoring did provide more freedom than formal mentoring but could also leave the mentee in a state of hopelessness and confusion. On the other hand, formal mentoring was not without its problems, as shared by Karen when she said that, “…there would be less pressure. As a faculty member, I like to design classes according to my own teaching style…”

Both forms of faculty mentoring helped in sustaining and educating online faculty to some degree and provided the guidance required in order to teach in an online environment.
Research question 2: Is the degree of satisfaction with online faculty at community colleges dependent on the type of mentoring received, formal or informal? Results for both research questions are quite similar. Participants showed that both formal and informal mentoring were both satisfying. As was stated earlier in Table 10, 89% of formally mentored faculty were satisfied with the overall quality of mentoring, whereas 92% of informally mentored faculty were satisfied with the overall quality of mentoring. Furthermore, Tables 11, 12, and 13 show that there was a close correlation between satisfaction in both formal and informal mentoring. Formal mentoring data was slightly higher in satisfaction than informal mentoring. Survey questions five and six stated, “Based on my experience as a mentee, I would volunteer as a mentor” and “I feel that mentoring is helping me enhance my online teaching skills.” The results for these two questions showed that the standard deviation for formal mentoring is larger (SD = 0.93/1.88), with more variability than that for informal mentoring responses (SD = 0.55/0.55). The standard deviation for formal mentoring ranges from 0.53 to 1.88. The standard deviation for informal mentoring ranges from 0.45 to 1.38. It is also noted from Table 10 that even though there were less formal mentoring participants (9) and more informal mentoring participants (14), that mean scores for formal mentoring were still slightly higher in satisfaction as compared to mean scores for informal mentoring. A different result might be obtained from in a study with a much larger sample size.
Implications

Barczyk, Buckenmeyer, Feldman, and Hixon (2011) provided a study in which they assessed the results of Distance Education Mentoring program (DEMP) at Purdue University. The program focused on enhancing the instructional design skills of faculty teaching online classes. An anonymous survey was given to 34 faculty respondents who completed the program. A pyramid model was used for the DEMP through the lens of quality management. This model provided three levels of quality management: top management commitment to quality, commitment to customer satisfaction, and continuous quality improvement. This study was similar to the current study in that satisfaction of formal mentoring was assessed and evaluated. The results of this study indicated that the perceptions of the protégés teaching improved as a result of DEMP. The DEMP further provided protégés with more psychosocial support than career development support. As was found in the current study, satisfaction was increased as a result of the mentoring online faculty received. Although this study was conducted at the University level, the study results provide strong support for online faculty satisfaction with a formal mentoring program of the community college level.

Similar to the research conducted by Barczyk, Buckenmeyer, Feldman, and Hixon (2011), is the research done by Cook (2011). As done in the previous study, this study also explored the area of formal mentoring of faculty at a Christian University. The difference between this study and other studies discussed was that the (Cook, 2011) results indicated that demographics (gender, tenure status, employment status, area of discipline, level of instruction, and years of teaching experience) had no significant
difference across any of the dimensions of the mentoring program used. Like the existing study, a higher level of satisfaction was evident, but demographics of participants were a focal point rather than a comparison of formal and informal mentoring as done in the current study.

Another researcher, (Cook, 2009) had previously questioned how faculty mentoring was affected by gender and race. The study indicated that “what women see as mentoring, men may regard instead as examples of merited, inter-generational collegiality” (p. 17). Women of color preferred informal rather than formal mentoring and felt that informal mentoring was more helpful. This is contradictory to the results of the current study which indicates that formal mentoring was slightly more satisfying to online faculty. It is noteworthy that Cook’s (2009) study did not take into account satisfaction of online faculty and is concerned mostly with faculty at a university, not a community college. These results imply a need for further study of the issue of online faculty satisfaction and its relationship to ethnicity and gender at community colleges.

Ackerman and Parker (2011) also utilized a Christian University for their study on mentoring. However, their focus was on how online mentoring was evaluated rather than satisfaction of online faculty who were formally or informally mentored. Their evaluation served as a means to examine areas of improvement with mentors. Results from that study indicated that faculty were satisfied both with the mentoring and the evaluation model which applied.

Wasserstein, Quistberg, and Shea (2007) compared mentoring and job satisfaction. Other considerations within the study were such elements as a comparison
of clinician-educators, research track faculty, and senior faculty. The study results indicated that assistant professors had a higher degree of satisfaction over associate professors. It was shown that tenure track professors were more satisfied over all with mentoring. There were lower amounts of satisfaction with clinician-educators and research track faculty. There was no difference between genders with respect to those who received mentoring. Specifically the purpose of this study focused on how different ranks were affected by satisfaction in mentoring and not how satisfied online faculty were in receiving formal or informal mentoring. Furthermore, the researchers discovered that those faculty given multiple mentors provided a higher level of job satisfaction than those with one mentor. Finally, this study examined mentoring satisfaction at a School of Medicine rather than at a Community College. The results of this study indicate that there may be other variables that could affect levels of satisfaction with mentoring, such as for example, job satisfaction that may be considered in examining mentoring for online faculty. Results of this study imply that further studies are warranted to examine how satisfaction with mentoring influences job satisfaction for online faculty.

Akroyd, Bracken, and Chambers (2011) investigated the job satisfaction of community college faculty by gender. A survey from a 1999 National Study of Postsecondary faculty was used to measure how satisfied both men and women were with their jobs. Results indicated that women faculty were more satisfied than men. The results also showed that part-time faculty were more satisfied than full-time faculty. Overall, women faculty were more satisfied with their work when it contributed to positive social change or had some sort of other meaningful content. In contrast the
variable of job satisfaction and faculty at community colleges were examined in this study. Further study of how faculty satisfaction with mentoring relates to faculty job satisfaction is still needed.

Another study of note is Mullen and Hutinger’s (2008) work regarding how formal mentoring programs can improve the practice of faculty as well as how formal mentoring impacts both new faculty and their mentors. This empirical study further explored the features of a second year program of development and the effects of a program which had reached its “tipping point” or where faculty mentoring had become contagious with other faculty. Results of this study confirmed the results of the current study in that formal mentoring increased faculty satisfaction. Mullin and Hutinger (2008) did not include informal mentoring and its effects on faculty. Also their study did not consider online faculty or distance education, implying the need for further empirical study of both formal and informal mentoring with online faculty.

**Limitations**

A limitation affecting the results of this study was the sample size obtained for the data analysis processes. As mentioned in chapter 3 (population and sampling) a minimum sample of 35 participants was needed in order to obtain saturation and have enough responses in order to use the test of proportions methodology stated. It is understood that a larger sample may have affected the outcome of the study. The study was conducted at three community colleges and a smaller number of faculty chose to participate in the study than originally expected. Despite several efforts to increase the
sample size, limited participation from faculty was obtained. It is for this reason that the methodology had to be revised in order to properly and accurately respond to study research questions. Originally a mixed study using an explanatory approach and a test of proportions was to analyze research question one. However, because of the limited number of survey participants, the sample size was inadequate for a statistical test of proportions, and would have greatly impacted the validity of the study. It is for this reason that a descriptive survey data analysis and qualitative interview analysis were used for the current study instead of the original methodology. These descriptive data were sufficient, valid and trustworthy enough to provide thorough responses for the study research questions (Patton, 2007).

**Recommendations**

As a result of the findings of this study, specific recommendations should be explored as a way to better understand faculty mentoring. This section provides an in-depth discussion of recommendations in the areas of research and educational practice. These are just a few possible suggestions for further study in the area of faculty mentoring.

**Recommendations for Research**

The following recommendations are provided for future studies:

1. This study used community colleges as a way to examine satisfaction among online instructors who had been mentored. A study using other higher education institutions such as universities could be used as a way to determine if the results
are dependent upon the type of educational institution.

2. Future studies could include demographic information such as gender, race, and ethnicity, exploring whether demographic variables and satisfaction differ in results compared to the current study. Applying these variables would help educational institutions better understand how demographic variables and online faculty are affected in mentoring relationships. Cook's (2009) study indicates that such variables may be of some significance in a study of online faculty mentoring.

3. Researchers could examine the effects of multiple mentoring. Instead of merely looking at how one mentoring program affects faculty satisfaction, a study could be developed which allows for more than one mentoring program in any given situation. This could provide multiple perspectives of mentoring online faculty and faculty satisfaction. The study could be expanded to include not only community colleges but also other higher education institutions.

4. Further studies are needed of students’ perceptions of online faculty and how satisfied students are with online courses. Correlations between how satisfied students are with the quality of instruction and whether mentoring has a direct association with the quality of online instruction would add to the body of knowledge about faculty mentoring.

5. Also needed are studies which explore mentoring of online faculty who teach hybrid courses. The current study limits research to online courses however; a study with hybrid courses involved would examine a combination of teaching online and in a face-to-face classroom. There may be other factors which may
affect the level of satisfaction when an instructor is mentored for these courses. Because of the nature of these types of courses, a different approach to mentoring may need to take place.

**Recommendations for Educational Practice**

A primary area of concern should be given to conducting follow up studies with those online faculty who have completed a formal mentoring process. As indicated in the results of this study, some participants are left on their own when they could use more mentoring. Periodic follow-up and assessment should be done to make sure mentees are receiving the necessary guidance they need in order to be successful in the long term, teaching online.

A second area which should be carefully evaluated is that of matching mentor and mentee. As indicated in the results of the interviews, not all participants were happy with the mentor that they received. Attention should be given to the matching process and choosing a mentor who is fully qualified and that will be able to bond with the faculty member mentee.

A final recommendation would be to consider multiple mentors for both formal and informal mentoring. Traditionally mentoring has involved the dyadic relationship in which an experienced mentor guides a less experienced protégé. Janasz and Sullivan (2004) suggested that having multiple mentors will help alleviate the problem of relying on just one mentor and provides a pool of mentors which are diverse and experienced in many areas. The benefits of having multiple mentors include having various perspectives, skills, knowledge and emotional support. Because of the changing
workplace and also the availability of mentors, multiple mentoring should be further studied as a viable solution. Mentoring programs should be reviewed and evaluated on a regular basis so as to improve the effectiveness of the mentoring provided. Formative and summative means of evaluation will help in looking at how satisfying the program is to mentees and using those methods which are most beneficial to both mentors and mentees.

**Summary**

This study has provided new insight into how satisfied online faculty at community colleges are with formal and informal mentoring. Responses from online faculty indicate that both formal and informal mentoring are satisfying to online faculty to some degree. Formal mentoring appeared to be slightly higher in levels of satisfaction with some responses. Faculty mentoring continues to be an effective tool to increase the effectiveness of online faculty and will prove to be a major factor in enriching and improving the quality of online instruction. As mentoring improves, satisfaction amongst those teaching online courses will also improve. This study has helped educational institutions to better understand the role of formal and informal mentoring and how mentoring can help in producing more effective online faculty. Much research is still needed in other areas of mentoring online faculty.
REFERENCES


24.


http://www.westga.edu/~distance/jmain11.html


## APPENDIX A. MENTORING SATISFACTION SURVEY

<table>
<thead>
<tr>
<th>What is your gender:</th>
<th>Were you formally/informally mentored?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

### What position do you currently hold?  
### How long have you taught online?  
### What is your highest level of education achieved?  
### Which college do you teach at?  
<table>
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<th>#</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>The mentoring relationship that I participated in exceeds my expectations.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Please Comment:</td>
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<tr>
<td>2.</td>
<td>I looked forward to meeting with or talking with my Mentor.</td>
<td></td>
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<td></td>
<td>Please Comment:</td>
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<tr>
<td>3.</td>
<td>I have grown professionally as a result of my participation in this mentoring experience.</td>
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<td>Please Comment:</td>
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<tr>
<td>4.</td>
<td>I have a better appreciation for some aspects of the education as a result of my participation in this mentoring experience.</td>
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<td></td>
<td>Please Comment:</td>
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<td>5.</td>
<td>Based on my experience as a mentee, I would volunteer as a mentor.</td>
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<td>Please Comment:</td>
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<td>6.</td>
<td>I feel that mentoring is helping me enhance my online teaching skills.</td>
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<td>Please Comment:</td>
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<tr>
<td>7.</td>
<td>My participation in mentoring is helping me achieve my career goals.</td>
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<td>Please Comment:</td>
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<tr>
<td>8.</td>
<td>I would recommend mentoring to my colleagues.</td>
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<td></td>
<td>Please Comment:</td>
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<tr>
<td>9.</td>
<td>I feel that mentoring is helping me increase my students’ success rate.</td>
<td></td>
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<td></td>
<td>How satisfied are you with the overall quality of:</td>
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<td></td>
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<tr>
<td></td>
<td>The formal or informal mentoring relationship?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>The matching process which occurred?</td>
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### How satisfied are you with the overall quality of:  
<table>
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<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
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<th>Strongly Disagree</th>
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<td>10.</td>
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<td>11.</td>
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</table>
APPENDIX B. INTERVIEW QUESTIONS

1. Were you in a formal or informal mentoring relationship in learning to teach online?

2. How did the mentoring relationship help you in accomplishing your goals? How?

3. How do you feel about your mentoring relationship in terms of it helping you learn technology better?

4. How satisfied are you with your mentor and the guidance you received?

5. How effective have the mentoring activities been in terms of supporting you as a mentee?

6. Would you prefer a formal or informal mentoring relationship? Why?

7. What were you most satisfied with during the mentoring process? Why?

8. What were you least satisfied with during the mentoring process? Why?

9. Is there any other information about the mentoring process that you think would be useful for me to know?