WHAT FACTORS ARE RELATED TO THE SATISFACTION
OF ONLINE INSTRUCTORS AT RURAL
COMMUNITY COLLEGES?

by

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ABSTRACT

Student enrollment in online classes has witnessed a significant growth over the past decade. Higher education institutions, in particular, rural community colleges recognize both the need and demand for online classes and have taken great strides to incorporate them into their course curriculum. However, with the growth of online courses there also comes an increase in the number of instructors teaching those online courses.

Using Frederick Herzberg’s two-factor theory as a framework, this study was created to discover what factors are related to satisfaction of online instructors at rural community colleges. The survey used in this study was distributed electronically to faculty at 11 rural institutions in Alabama’s Community College System and consisted of 31 questions that were categorized into four sections: demographics, hygiene factors (nine total), motivator factors (five total) and online instruction at each institution.

Results from the study indicated there were four hygiene factors that were related to satisfaction of online faculty: benefits and services, supervision, physical working conditions and interpersonal relationship with peers. There were only two motivator factors listed as related to satisfaction: personal achievement and opportunities for advancement and growth. While the data collected from the demographic section did not show any statistically significant differences in the means, there were variable means that indicated more satisfaction than others.

Data collected via a quantitative study provided a closer look at satisfaction of online faculty at rural community colleges. Conducting this study not only added to the limited research on the topic, but also provided distance education administrators and supervisors with information needed to develop and maintain online programs at their institution.
DEDICATION

This dissertation is dedicated to the memory of my mother, Patricia Elaine Green.
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I would like to thank my dissertation committee for the giving of their time, knowledge and advice that ultimately helped me to complete this project. My committee consisted of Dr. Claire Major (Chair), Dr. Nathaniel Bray, Dr. David Hardy, Dr. Michael Harris and Dr. Vivian Wright. This dissertation would not have come to fruition had it not been for the continued support and encouragement from my chair, Dr. Claire Major. She redirected me when my work was astray, she questioned me when my thoughts were unclear and she never let me give up on this far reaching goal. I particularly want to express my appreciation to Dr. David Hardy for helping me find clarification and answers in my statistical analysis. While not members of my committee, I would like to thank Dr. Judy Giesen for providing direction in the development of my survey and counsel on statistical assessments and Dr. Tommy Taylor for his support and guidance during this last phase of my graduate work. Completing this doctoral study was truly the most challenging undertaking of my educational career and I am very grateful to have had a committee that was as dedicated as I in completing this task.

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CHAPTER I:
INTRODUCTION

Higher education today is in a state of transition. While there is still a place for the traditional classroom lecture, a growing number of higher education institutions are adopting online instruction as well. Fish and Gill (2009) have argued that “online instruction has influenced how higher education redefines teaching as universities understand the significance and move towards the paradigm of online teaching and learning” (p. 53). Recognizing that the success of online courses is strongly tied to the instructor, institutions and the instructors themselves are finding ways to provide better instruction and develop better online courses for their students (Cook, Ley, Crawford, & Warner, 2009).

Many higher education institutions are noticing the value of online education and as a result are expanding their distance education programs in order to augment both course offerings and student population (Cejda, 2007; Leist & Travis, 2010; Orr, 2009). Increasing course curricula and student headcount is essential to the survival of many institutions during times of economic turmoil. Institutions across the country are in varying levels of financial crisis due to federal and state educational budget cuts. A recent study of community colleges entitled, The 2011 Community Colleges and the Economy Survey, found that “69 percent of the institutions surveyed reported an increase in enrollment from winter 2010 to 2011 while 60 percent reported a reduction in their overall operating budget” (The Campus Computing Project ,p.1). As a result of these cuts, tuition has steadily increased across the country, prompting colleges and universities to find ways to offer more with less.
One way enrollment has been maintained is through more online offerings within institutions (Jones, 2003). Online courses can be offered anywhere at any time, thereby freeing up classroom space to accommodate another course. Another way that online courses are sound investments is that one instructor can teach several sections of the same course, thereby eliminating multiple course preparations.

The Sloan Consortium, an organization originally funded by the Alfred P. Sloan Foundation, is dedicated to integrating and improving online education in post-secondary institutions. Recognized for their published surveys about online education and the trends that are found in this area, Sloan has helped contribute to the increase in online course popularity. In their Annual Survey of Online Education, Sloan (2010) found that “approximately 5.6 million students were enrolled in at least one online course in fall 2009; a 21 percent increase over the number reported the previous year” (p. 1). Also reported in a 2009 survey of community colleges by the Instructional Technology Council was that “enrollments in online courses shot up in 2008 by about 11 percent over 2007 with 72 percent of the institutions offering completely online courses” (p. 2).

Attending the growth of online learning has been an increase in the enrollment at two-year institutions. Community college enrollment is expected to grow over the next decade in part due to the need for and access to higher education. According to McNutt (1994), community colleges have “opened up educational opportunities to a broader group of people, and are working toward breaking down barriers formerly imposed by race, class, gender, and age divisions” (p. 15). By breaking down barriers, community colleges, in particular rural community colleges, will expand their reach, thereby growing their institutions.
The Carnegie Foundation for the Advancement of Teaching documented that “rural-serving classifications represent 60% of all public community college districts and campuses (2010) thus making rural community colleges a prevalent choice for college students who want to further their education. Hardy and Katsinas found that “34 percent of the nation’s community college students attend rural institutions” (2007, p. 34). Rural community colleges in particular have a “history of serving a community’s educational needs and bringing statewide resources and opportunities to rural America, rural community colleges often serve as the cultural and community center for their communities” (Miller & Kissinger, 2007, p. 37).

Both the two- and the four-year colleges are addressing the growing need of online education at their institutions. Troy University, for example, created the eConnections distance learning program that provides working Alabamians who otherwise might not finish their degree an opportunity to choose from over 19 programs where they can earn their bachelor’s or even a graduate degree. Recognizing that “student’s lifestyles demand it,” online learning has become a “natural fit” for community colleges; therefore, the continued growth of online education is a necessity for the success of these institutions (Bradley, 2008, p. 9).

According to a 2010 published report, Class Differences: Online Education in the United States, over 2,500 public, degree-granting institutions have responded to the growing demands of the distance education community as well as the needs of students. The data collected from this report revealed “sixty-three percent of all reporting institutions said that online learning was a critical part of their institution’s long term strategy, a small increase from fifty-nine percent in 2009” (Allen & Seaman, p.2). Sloan’s survey also reported that “a majority of institutions continue to report that there is increasing competition for online students” (Allen & Seaman, 2010, p.4).
In order to adequately address the need for more online courses, higher education institutions have researched the area of online education and found a variety of factors related to faculty participation. For example, factors such as meeting student’s needs and desires (Hiltz, Kim, & Shea, 2007), the ability to teach any time and from any place (Maquire, 2005), and the opportunity to learn about new technology (Shea, 2007) were found to be the most influential in terms of faculty participation. In addition to these, “creating teaching material in an on-line format and demonstrating satisfactory teaching skills in that learning environment” were found to be factors in faculty participation (Lai, 2007, p. 62). Scholarship in this area has reported that “universities and colleges seeking to expand and enhance online learning will benefit from continued research into factors that can be initiated to facilitate faculty members’ desire to teach online and their success in doing so” (Orr et al., 2009, p. 267). However, there is one area of online instruction that is lacking in significant study: the factors that are related to satisfaction of online instructors at rural community colleges.

Online Instruction at Rural Community Colleges

Miller and Kissinger (2007) noted in their article, Connecting rural community colleges to their communities, that rural America accounts for 85% of the nation’s geography but only 15% of its population. The article went on to describe this sector of the population as “underperforming in bachelor’s degree attainment, having higher poverty rates and fewer opportunities for advancement, and in many areas, experiencing sustained economic depression” (p. 27). For many of the people who make up this population, obtaining a college degree is often stalled by challenges such as geographic location, reliable and expedient internet service, family obligations, and financial restrictions among others. Therefore, those who live in rural communities look to other alternatives to bridge the gap in furthering their education, whether it
is in the academic, technical, or career readiness field. One such alternative is the rural community college, where the open-door policy is an incentive to pursue an education.

For many sparsely populated areas, a rural community college serves as a hub for obtaining a variety of educational needs. The rural community college, in particular, becomes a beacon of knowledge that literally draws students to its campus. Garza and Eller (1998) best summarized the role of the rural community college:

The rural community college of the future will be much more than a place where people go to take college courses. It will be an indispensable part of the community’s overall efforts to build a better future for all of its citizens. The best of these colleges will be at the center of these efforts to improve community life. (p. 31)

However, the characteristics typically used to define rural community colleges are often the same obstacles they face in being able to build a better future for all of its citizens. For example, rural community colleges must deal with a scarcity of financial resources both at the local and state level. Fluherty and Scaggs (2007) noted that the “rural federal funding disadvantage is exacerbated by an equally uneven commitment to rural community and economic development by our nation’s foundations and corporate grant makers” (p. 22). Most recently, the Alabama community college system suffered budget cuts in excess of 9%, thus resulting in the tuition at two-year community colleges rising by 27% in order to offset the deficit (Diel, 2009). Even with the increase in tuition, the cost of attendance for the average student at a community college is still half of that for those who attend four-year universities.

Rural colleges must deal with the same economic challenges that community colleges in more metropolitan areas face, but must also confront the problems specific to rural areas, such as the lack of basic technology necessary for online instruction and a student population inexperienced in dealing with such technology. As Katsinas and Moeck (2002) concluded, “rural areas . . . lag behind central cities and urban areas in broadband penetration at 7.3% compared to
12.2 % and 11.8%, respectively” (p. 218). There has been little critical discussion of the intersection between online instruction and the community college, and even less that focuses specifically on the plight of rural community colleges and the challenges they face bridging “the digital divide”. McConnaughey, Nila and Sloan helped popularize this phrase in 1995 with a group of articles sponsored by the National Technological Information Administration. Katsinas and Moeck (2002) found the term “digital divide” referred to the technological difference between people who have reliable access to technology such as the Internet and those who have limited or no access to such technologies (p. 208). Instructors at these rural colleges are often left scrambling to find the resources and technologies to best bridge this technological divide. Therefore, a comprehensive study and survey is necessary to examine the satisfaction of online instructors at rural community colleges.

Statement of the Problem

Online courses require a number of elements to be successful and continue to thrive in this age of e-learning. For example, an instructor who is satisfied with the dynamics of his or her online course as well as other areas of his or her job is an integral component in the success of the learning environment of their students (McBride, Munday, & Tunnell, 1992). In a Carnegie Foundation National Survey of Faculty, 80% of community college faculty members were satisfied with their job situation as a whole. However, 66% were satisfied with their department, and only 38% were satisfied with their institutions. The number of faculty members who teach at community colleges is expected to grow in the future (Truell, Price & Joyner, 1998), therefore, an investigation into the area of online faculty satisfaction, in particular those at rural community colleges, is needed.
Rural community colleges play an important role in both providing educational opportunities and strengthening the communities in which they are located (Dillon & Cintron, 1997; Issac, 2007; Miller & Tuttle, 2007). Supporters of the mission of the rural community college’s teaching philosophy are faculty who are often faced with obstacles common to rural areas: strained financial conditions, illiteracy, high unemployment, and below average educational background (Murray, 2007; Leist & Travis, 2010). These conditions, coupled with a heavy workload, life in a rural community and stress from feeling underappreciated, are just a few of the reasons that community colleges are “experiencing an unprecedented turnover in early and midcareer faculty” (Murray, 2010, p. 57). Milosheff (1990) found that a faculty member’s intention to leave his/her job was closely linked to job and life satisfaction. In recent years, studies in faculty job satisfaction have yielded many results about the factors that motivate satisfaction: student-related factors (Bollinger & Walsil, 2009), work itself (Castillo & Cano, 2004; Truell, Price, & Joyner, 1998) and relationships with supervisors and colleagues (Hutton & Jobe, 1985). However, there is one area of faculty job satisfaction that is deficient in the amount of research and that is faculty who teach online courses at rural community colleges.

Statement of Purpose

This study answers the primary research question: what factors are related to the satisfaction of online instructors at rural community colleges? The purpose of this study was to identify the factors related to satisfaction for this growing number of online instructors at rural community colleges. While much scholarship examines the reasons instructors are first drawn to online instruction, there has been very little critical analysis as to what specific factors are related to the satisfaction of an instructor who teaches in the online environment for a sustained period.
Significance of the Study

According to Hardy and Bower (2004), “the increasing popularity of online courses in community colleges has forced faculty and administrators alike to acknowledge and contend with a variety of issues such as changes in the instructor’s role, course organization and format and interacting and communicating with students” (p. 47). By adding more research to the field of online instruction, specifically the area of rural community college online instruction, administrators and educators will be armed with the knowledge to create and modify better online programs. Palloff and Pratt (2001) stated that “with this in mind, the instructor can then consider the process to be used to reach the desired outcomes in the context of what is possible online” (p. 69).

Currently, the research base of online instruction revolves largely around four-year colleges and universities, thus leaving the rural community college sector untapped in terms of sound scholarship. Research in the area of instructor satisfaction is beneficial to instructors who are currently teaching online courses and provide insight to instructional and institutional administrators who are responsible for developing online programs. Being armed with the information related to instructor satisfaction can provide administrators with the information necessary to “identify areas of low satisfaction and implement strategies to improve faculty satisfaction in those areas” (McBride, Munday, & Tunnell, 1992, p. 112).

Research Questions

The focus of this study was to apply factors from the Herzberg theoretical framework to job satisfaction of online instructors at rural community colleges. Developed in 1959, the two-factor or motivation-hygiene theory found that satisfaction in the workplace was caused by certain factors and that dissatisfaction in the workplace was increased when certain factors were
absent. Herzberg found that satisfaction was increased when motivator factors such as personal achievement and professional recognition were present while dissatisfaction occurred when hygiene factors such job security and salary were lacking. Based on Herzberg’s framework, the current study was designed to address the missing link by adding data to the field of online education by answering the following research questions:

1. What hygiene factors are most related to the job satisfaction for community college instructors who teach online courses;

2. What motivator factors are most related to the job satisfaction for community college instructors who teach online courses; and

3. Is there a relationship between faculty demographic characteristics and overall job satisfaction?

Assumptions

The research conducted in this study was based upon the following assumptions:

1. That all respondents were truthful in their responses to the survey; and

2. That the survey was valid and reliable.

Delimitations

The primary delimitation of the research study was that only full-time faculty at participating rural community colleges in the Alabama Community College System were included in the study.

Limitations

The primary limitation of the research study was that of the 17 rural community colleges in the Alabama system, there were only 11 that elected to participate in the study. Since the
study did not get full participation from all the community colleges in Alabama classified as rural, the ability to generalize about the data collected is limited.

Another limitation of this study related to the control of the instrument. The survey was administered through the Chief Academic Officer or a designee of that officer, who forwarded an email from the researcher to the appropriate faculty members with the link to SurveyMonkey and an overview of the research project embedded in that email. Therefore, the survey respondents did not get the material directly from the researcher but rather through a third-party administrator at the respective community college.
CHAPTER II:
LITERATURE REVIEW

Researchers have studied the changing role of the rural community college, the challenges faced by rural community colleges, the growth of online instruction at community colleges and faculty satisfaction in relation to online instruction. However, an area that seems underrepresented is an analysis of the satisfaction level of online faculty at rural community colleges. The literature, however, includes studies about faculty satisfaction and dissatisfaction in face-to-face environments.

Community Colleges

Numerous studies have evaluated the growth of the community college. Community colleges “are seeing the greatest surge in enrollments since the Baby Boom of the mid-1960’s and early 1970’s” (Kennamer, Katsinas, Hardy, & Roessler, 2010, p. 13). Two-year colleges, as a whole, project a 20% increase in enrollment over the next decade (Miller, Pope, & Steinmann, 2005). Dillon and Cintron (1997) attributed their appeal to the fact that “[c]ommunity colleges are often the first to venture beyond predictable and comfortable borders in higher education, seeking to fulfill their open-door mission and tradition of community service” (1997, p. 93). Kennamer et al. (2010) also found that “by Carnegie classification, of the 30% increase in total enrollments, just over 1 million of the 2.3 million new students in five years, or 42%, enrolled at rural Associate’s Colleges” (p. 13).

Who are these community college students? Full-time students “are mostly between the ages of 18 and 24 (42%), while part-time students are 25 to 29 (17%). Female enrollment is
slightly higher than male enrollment in these colleges” (Miller, Pope, & Steinmann, 2005, p. 65). According to the American Association of Community Colleges, the average age of students attending community colleges is 28. However, according to Cejda (2007), “rural communities contain higher percentages of residents who have not completed high school or who hold a high school degree as their highest educational degree” (p. 88).

Students begin their pursuit of an education for a number of reasons, one of which includes bridging their post-secondary and baccalaureate degrees. Laanan (2003) argued that “Today, a large portion of students begin their education at two-year colleges and take advantage of the academic transfer function” (p. 496). Laanan also found that “many of these students aspire to transfer to four-year colleges or universities to pursue bachelor’s degrees” (p. 496). These transfer programs “play a critical role in providing access to individuals who desire to continue their education beyond a two-year institution” (Laanan, 2001, p. 11).

Studies have examined other reasons for students to attend community colleges. Townsend (2003) pointed to surveys that indicate the “respondents’ reasons for enrolling in a two-year college were career-related, preparation for career change and personal development” (p. 277). Studies have also shown that “Students chose community colleges for a variety of reasons, including proximity to home, cost, availability of programs, and access to remedial programming” (Miller et al., 2005, p. 63). Also cited as one of the reasons community colleges “continue to thrive” is their “attention and service to students” (Miller et al., 2005, p. 64). Data collected from various surveys has suggested that community colleges have a strong appeal for those individuals seeking a career change or who want personal development, and they offer a second opportunity for those with subpar academic records (Townsend, 2003). They have a
particular connection with “displaced workers and homemakers, providing a gateway to higher education for the nontraditional college student” (Miller, Pope, & Steinmann, 2005, p. 65).

The primary reason, however, that community colleges continue to be the institution of choice for many students is likely financial. Miller, Pope, and Steinmann (2005) cited cost as the primary reason in a list of factors for why transfer students choose to attend a community college first, ahead of other reasons such as convenience and “a greater ability to refine skills before pursuing a bachelor’s degree” (p. 66). Townsend’s study (2003) also pointed to other factors, such as “the convenient course scheduling and convenient location,” for students choosing a community college, but also emphasized the primacy of financial concerns: “If the program the students wanted was available at both the two-year and four-year school, they were influenced by the low cost of the two-year school as compared to the four-year colleges” (p. 283).

Changing Role of the Rural Community College

There has been much recent discussion about the pivotal role of rural community colleges in areas of the country that have no other options for higher education. “In rural areas,” argued Caven (1995), “the local community college is the only game in town for economic development, cultural enrichment, and higher education” (p. 9). Murray (2007) echoed the sentiment, adding that “rural community colleges are often the only higher-education institution available in communities that are often severely depressed economically and educationally” (p. 218). MacBrayne (1995) continued this theme, pointing out that “rural community colleges have a special role in providing access for the adults in their region, as often they are the only institution located nearby” (p. 55). In these often geographically-isolated areas, the community college is the bridge to a new way of life, one that draws from several areas of the population traditionally disenfranchised from higher education. They represent “a human mosaic,”
educating more “women . . . minorities . . . and . . . older people” than “any other type of institution” (Caven, 1995, p. 14-15). Since community colleges are dealing with segments of the population who historically have matriculated on college campuses at much lower numbers, “rural community colleges in particular need to provide an environment where people feel comfortable, without regard to their backgrounds or goals” (p. 14). As Miller and Tuttle (2007) have suggested, rural community colleges are unique in the way they address the student of higher education:

Rural community colleges certainly play a distinct role in their communities, mirroring some of the traditionally implied roles of their 4-year college and university counterparts. They have a unique distinction, however, in terms of serving small towns in ways that 4-year colleges do not. They are socially enabling institutions that improve and help form the identity of rural America, both in terms of individual communities and in terms of individuals themselves. (p.126)

While they may have a “unique distinction” in the way they serve small towns, rural community colleges also face their own unique challenges, many of them tied to economics and geography. McNutt noted how “a lack of industry in many rural areas also translates into a lack of an adequate tax base. Unfortunately, in rural areas, it is the educational system that suffers first and foremost” (as cited in Caven, 1995, p. 11). In Pennington, Williams, and Karvonen’s study (2006) that dealt with the challenges facing the rural community college, financial concerns were cited as the primary reason for the lack of qualified personnel:

The most consistent problem voiced by the interviewees was the inability to find qualified people to work at a small, rural community college. This was true for every type of employee, not just faculty . . . Most interviewees state that salary constraints impact upon the ability of their institution to recruit instructors in some high-demand areas: “We lose qualified people every year to industry” (p. 651).

“Salary constraints” continued Pennington, et al., (2006), “are clearly an issue for faculty; experienced faculty members can make a better living at a larger, more urban institution” (p. 653). Karvonen (2006) also identified “ability to compete and receive grant funding” as a
challenge for rural community college leaders (p. 652). Rural community college students are also hampered by their lack of proximity to urban areas and by the problems endemic to rural life, such as out-of-date technology. Aslanian noted how, for the non-traditional, rural student, “[a]ccess is often limited because of poor public transportation, the adult learners’ geographic isolation, and the lack of comprehensive education delivery system” (as cited in MacBrayne, 1995, p.55). Dillon and Cintron (1997) summarized others studies (Dede, 1994; Rural Clearinghouse 1994), then conclude that, “High-income households are much more likely to have access to computers and on-line services than low-income households” and predict, “As access to technology becomes associated with quality of life, those who do not have access will become increasingly disenfranchised from the information-based society” (p. 96). Fluharty and Scaggs (2007) concluded that “Incomes tend to be lower, and poverty rates higher, in these rural areas than in more urban areas” (p.19).

**Challenges for Rural Community Colleges**

Rural community colleges are not immune to the myriad challenges that many higher education institutions face. One set of challenges that have been studied are those faced by the student population who attends rural community colleges. Surveys of rural community colleges have found that “students attending public two-year colleges were more likely to live close to the college and either lived with their parents or commuted a short distance to campus (Laanan, 2003, p. 511). Miller, Pope, and Steinmenn (1995) also found that “student chose community colleges for a variety of reasons including proximity to home” (p. 63). Moeck, Hardy, and Katsinas (2007) concluded that “for students in rural areas who are trying to juggle work, family, and college responsibilities and who now also struggle with higher gas prices in areas where
publicly subsidized mass transportation rarely exists, on-campus housing may be particularly appealing” (p. 84).

According to Williams, Pennington, Couch, and Dougherty (2007), “the distance between the college and its student is a fundamental concern that often leads to the expense of building campus-based housing or dormitories” (p. 35). Hardy and Katsinas (2008) found that “higher housing and transportation costs may explain the higher rates of indebtedness at rural colleges” (p. 49). Fiscal difficulties are often common to community colleges due to a “smaller, lesser diversified tax base and lack of political clout within both state legislatures and higher education systems” (Williams et al., 2007, p. 26). However, rural community colleges have found a way to minimize the challenges they face while increasing enrollment by offering online education.

Leist and Travis (2010) concluded that:

. . . rural community colleges have incorporated online courses into degree and certificate programs to improve their educational reach. Distance education has provided a way to communicate with individuals dispersed over large geographical expanses, and no other sector of higher education is more affected by geography than rural community colleges. (p. 17)

Need for Online Instruction at Rural Community Colleges

Because it can transcend geographical boundaries in the way the traditional classroom cannot, online instruction has become an integral component of higher education. Rural community colleges have taken notice of this and have integrated online courses into their programs in order to reach a larger target audience (Austin, 2010). The audiences that rural community colleges serve are typically dispersed over large geographical regions and have limited options for furthering their education (Leist & Travis, 2010; MacBryne, 1995). Faced with long commutes and time away from work and other obligations, rural community colleges provide the flexibility and convenience to students thus saving them time and money (Leist &
Travis, 2010). Shieh, Gummer, and Niess’ 2008 study found that the online student populations at many colleges were “20 – 29 and unmarried who either worked full-time or part-time” (p. 63).

MacBrayne (1995) found that “distance education is particularly significant for rural community colleges. It is essential that their students obtain the knowledge and skills needed to compete in an ever-changing, increasingly global economy” (p. 61). Findings from a 2008 National Survey of Students showed that students felt “more engaged in an online course than in a traditional one, and that online courses demanded higher-level skills and more participation” (Adams, 2009, p. 42). Students who take online courses are able to “profit from the flexibility and convenience of online courses, which can greatly reduce or eliminate long commutes for a face-to-face class, thus saving time and the costs associated with high gasoline prices” (Leist & Travis, 2010, p. 18).

**Drawbacks of Online Education at Rural Community Colleges**

While online education certainly provides many benefits to students at rural community colleges, there are also drawbacks associated with this type of instruction. Cejda (2007) concluded that “student need for access to computers implies that at rural colleges it is not common for students to own computers and that the institutions are struggling to provide widespread access for their student population” (p.92). Reliable and high-speed internet access should be a consideration for rural community colleges as rural areas are less equipped with broadband than their urban counterparts (Cejda, 2007). The “digital divide” is a “major challenge for the areas served by these institutions” (Katsinas & Moeck, 2002, p. 209). Sink, Jackson, Bohem, and Shockley (2004) found that “funding for affordable, high-speed internet access is often allocated for urban colleges; however, many rural community colleges are often located in economically distressed areas, and do not have adequate broadband access” (p. 322). Wu and
Turner (2006) found that many students still resort to dial-up internet access due to a variety of reasons, such as financial restrictions or limited technology access. Using dial-up internet service in an online course proved to be problematic for course content items such as sound and video distribution. Wu and Turner (2006) also found the ability to quickly and reliably access online courses is important for students due to their hectic work schedules and personal obligations.

Reliable access to the internet is just one area of online instruction that rural community colleges face. Cejda (2007) found that “in addition to the access-to-computers issues, the technological competence of faculty and students rank among the other top technology issues at rural community colleges” (p. 93). Without the necessary support staff and resources to support the technology infrastructure, the online environment suffers. According to Liu, Gomez, Khan, and Yen (2007), “technological factors strongly influence course dropout in the community college online learning environment” (p. 534). The inability to fully utilize the technology necessary for distance education courses places rural community colleges at a disadvantage compared to their urban counterparts (Sink & Jackson, 2007; Cejda, 2007).

Resource challenges for rural community colleges can be as diverse as the audience they serve, but one common challenge found within this group of institutions is fiscal issues (Leist & Travis, 2010). Brought about by “high rates of unemployment, illiteracy and low education attainment levels,” the financial strains of the areas served by rural community colleges is related to the funding of the colleges (Leist & Travis, 2010, p. 18). Fluharty and Scaggs (2007) concluded that “funding formulas that do not recognize the higher per-student operating costs of small colleges clearly disadvantage rural institutions. Declining state support and rising student tuition make conversations about equitable distribution of resources more difficult” (p. 24).

Without proper funding, areas of the college such as faculty salaries, professional development
and online program expenses will be sacrificed (Austin, 2010; Leist & Travis, 2010; Murray, 2007).

Online Instruction and Faculty

For faculty, online instruction can be a challenging task with many responsibilities. Wolf found (2006) that “successful online faculties have been noted to be willing to make the transition to the new environment, with all the attendant risks and rewards” (p. 58). Faculty members realize the value of this type of instruction and recognize that by offering online courses, they can reach a large audience. For example, Frey and Donahue (2003) found that:

Of the 45 million people surfing the Web each week, 81% are between the ages of 18 and 49. This group provides a growing market of learners for community colleges. By offering courses online, instructors now have the ability to reach this previously inaccessible pool of learners. (p. 70)

Reaching a new pool of students is just one of the areas of uncharted territory that faculty and their institutions face when starting online programs. Murray (2005) found that “hiring, training and retaining quality faculty to help develop online courses and programs that help support student learning styles and strengthen the teaching and learning environment” (p. 27). Development and delivery of a successful online course was found to be more complex than just “putting classroom lectures notes onto the Web” (Frey & Donehue, 2003, p. 83). A 2006 study of online faculty found that “online instructors needs to be ‘seen’ in order to be perceived by their students as present in the course just as do face-to-face course instructors” (Mandernach, Gonzales, & Garrett, 2006). The aspect of faculty presence in online courses is just one area of research that has been studied by higher education scholars. A sampling of other areas that are directly related to online instruction and faculty include satisfaction in the online environment, targeting new audiences, focusing on student needs, flexible work schedule, and learning new technologies (Orr, 2009; Hiltz, 2007).
**Self Satisfaction**

Self-satisfaction stems from the knowledge that an instructor has done his/her job well. He or she has designed and created a successful online course, reached the target audience and expanded his or her own reference of technology familiarity. Self satisfaction of online instructors has been found to be “effective and professionally beneficial” (ADEC, n.d.) and “positively influenced when faculty believe that they can promote positive student outcomes” (Sloan Consortium, 2006). Through an increase in self-satisfaction, instructors continue to build and develop their online course, which in many cases lead to developing other online courses in their discipline.

**Reaching New Audiences**

In addition to self-satisfaction being a motivational factor to teach online courses, faculty also have reported that the ability to reach new audiences was a driving force in their decision to be a part of the online environment. Hiltz (2007) found in a 2006 survey of experienced online faculty that reaching a new audience “increased diversity and added more value to online learning” (p. 7). One faculty member from Hiltz’s survey stated that “I can reach the students, who might not have the opportunity to attend classes, but they are very enthusiastic and they really want to learn” (p. 7). A study conducted by Volery and Lord (2000) found one motivating factor for expanding access to online education:

Most states need to expand access to education in order to meet the education and training needs of state residents and companies and to educate under-served populations. For many people in the past, academic programme calendars have not matched work and family responsibilities, and programme offerings may not have met learner needs. (p. 216)
Brooks (2009) concluded that providing online education to students who face financial constraints and work obligations will allow them to “more effectively manage their work and study responsibilities” (p. A65).

**Student-Centered Concern**

Online faculties have been found to be “driven by a student centered attitude of concern for their student’s needs. More specifically, meeting the needs of place-bound students and about ways for students to complete their degree in a timely manner” (Orr, 2009, p. 262). The Sloan Consortium supported this finding in a 2006 survey in which they found that satisfaction of faculty was also increased when they felt they were “promoting positive student outcomes.”

Major (2009) found that “many faculty noted increased appreciation for students, suggesting that they could draw upon student experiences when teaching and could view students as partners in the learning process” (p. 7). The relationship between student and faculty satisfaction and the success of an online course cannot be underestimated. These two factors are recognized as “two of the five elements in the Sloan Consortium’s quality framework for online education” that was designed for “measuring and improving an online program within any institution” (Lorenzo & Moore, 2002, p. 3).

**Flexible Work Schedule**

For many faculty members, an important factor in teaching online courses was “a more flexible work schedule” (Shea, 2001; Green, 2009; McKenzie, 2000). Shea (2007) found that by “helping other faculty to understand that online teaching can provide greater control over their work life (as reported by those experienced online instructors) will be beneficial in promoting online teaching as a method of increasing access to higher education” (p. 82). Hiltz (2007) found that flexible schedules also allow faculty members the opportunity to offer a once per semester
course online in order to prevent conflicting with other courses that are taught in a traditional format, thereby “satisfying all possibilities” (p. 6). Also found in Hiltz’s (2007) work was this example of an instructor who benefitted from a flexible schedule and stated this about the subject:

It enables me to teach and I think that really goes under self scheduling because my calendar is so full and needs to be so flexible that if I were to teach a face-to-face course or more than one face-to-face course, it would be impossible for me to schedule other things that need to be scheduled. (p. 6)

Learning New Technology

The tools and software used in delivering online instruction are continually changing. Many of the faculty members in Hiltz’s 2006 study indicated that the “challenge of the technology” certainly played a role in their decision to teach online, but one member expounded on his reason by saying:

I just happened to enjoy using new technology that I haven’t used before and most of the time they worked well, occasionally they were frustrating, and exploring on how I can use the new technology like WebCT. What new ways can I use it that I haven’t used it before? (p. 6)

Despite the fact that learning a new technology poses additional challenges for online faculty, many of them found that “the challenges and satisfaction of learning technologies and applying them to teaching” was named as one of the top motivational factors in teaching online classes (Hiltz, 2007, p. 6).

Instructor Role Shift

Teaching online courses requires instructors to modify their traditional classroom teaching style in addition to adapting to new technology issues and instructional practices. Worley and Tesdell (2009) found that an instructor may take on new roles such as “online course designer, manager, technology expert and learning management system manager” when teaching
an online course (p. 139). Navigating these new roles often requires instructors to return to the classroom for additional training in order to adjust to the technology and instructional changes required for online classes. Hardy and Bower (2004) found that “this shift in roles is a challenge for some faculty, and institutions that are increasing the number of Web-based courses offered have a responsibility to provide faculty with resources and training to assist in this role evolution” (p. 48).

Online faculty faces the challenge of converting their traditional paper and pencil classroom into a digital database of information accessible at anytime and anywhere. For example, Savery (2005) found that:

Experienced classroom teachers – those who have taught a grade or subject several times – prepare instructional materials for their students that are ‘bulletproof’ meaning that directions are clear for all assignments, instructional materials have been thoroughly reviewed and problems that developed in previous teaching sessions have been addressed. (p. 145)

In addition to crafting an exemplary set of directions, Savery (2005) recommended that faculty “integrate the existing foundations in teaching (i.e., Chickering & Gamson) with the design of learning environments that foster student ownership for learning” (p. 141).

Chickering and Gamson’s (1987) seven principles of good practice have provided instructional guidance in higher education institutions. However, due to the advancements in classroom instruction over the years, in particular that of online instruction, these principles have been enhanced, thanks to Chickering and Erhmann (1996). Hutchins in a 2003 article argued that if used in web-based courses, the seven principles found in Chickering and Erhmann’s *Implementing the Seven Principles: Technology as Lever*, could “enable instructors to better achieve desired student outcomes” (p. 3). Those principles as are as follows:
1. Encourage contact between students and faculty by incorporating course management tools such as Blackboard. This type of system provides tools such as email and chat room for students to discuss classroom topics in a non-intimidating environment.

2. Develop reciprocity and cooperation among students by incorporating collaborative learning projects and assignment discussions. This allows students to work together on assignments by sharing information and ideas with their classmates.

3. Uses active learning techniques such as active learning projects, reading and writing to encourage students to reflect on their experiences thereby enhancing their knowledge base. Projects of this nature can be enhanced through the use of discussion boards and chat rooms.

4. Give prompt feedback in the form of an email, self-grading assessment or performance evaluation such as a grading rubric. This is useful in letting the student know where they stand academically in the course.

5. Emphasize time on task by setting realistic timelines for assignments, assessments, etc. and tying that timeline to their performance results, i.e. electronic grade book, establishes the importance of time on task.

6. Communicate high expectations by establishing a set of high standards and publishing examples in a course management system conveys the notion that anything else is undesirable.

7. Respects diverse talents and ways of learning by addressing various learning styles and tapping in on student talent can be accomplished by incorporating
written text, visual aids, interactive videos and activities that promote self-evaluation and reflection (Chickering & Erhmann, 1996, p. 3-6).

**Designer and Developer**

A key role that an instructor takes on prior to teaching an online course is that of designer and developer. Designing and developing a new online course is a process that has many different phases. According to Bi’s 2000 qualitative study, faculty “need to take into account that they are creating a course not only for the next semester, but next academic year and the years beyond as well” (p. 40). Hardy and Bower (2004) found that faculty must consider “organization, format, and delivery when transferring the content of their traditional courses to the online environment” (p. 49).

When instructors begin the laborious task of designing and developing a course, they find it to be very time consuming. Bollinger and Wasilik’s (2008) survey of online instructors found that “faculty are more satisfied when the institutions provides release time for course development and recognized that online teaching is time consuming” (p. 106). Sheridan (2006) concluded that “a well designed and well-managed online course could save an instructor a quarter of the time normally devoted to teaching in a traditional classroom” (p. 67). Yang and Cornelius’ 2005 article about quality online instruction addresses topics in which instructors should be well versed while developing a course. For example, instructors should know to navigate the course management system, address technology issues as well as design and development dynamic online courses.

Another area of course design and development that has drawn much attention is course organization. In a 2001 survey of online faculty, LaMonica found that “the most important element in a successful Web-based course was the organization of content” (p. 5). When a course
is well designed and easy to navigate, the instructor is faced with far fewer student emails inquiring where to begin and what to do next, thereby allowing the instructor to focus on managing the course content. The content of online courses can range from discussion postings to multiple-choice assessments. These tools are designed to help engage students, assess their knowledge of the subject, and encourage critical thinking (LaMonica, 2001).

Course Facilitator

Another role that instructors take on while teaching online courses is that of course facilitator. One way that instructors can modify their methods of teaching is to no longer think of themselves as the “talking heads” at the front of the class, but rather as the online knowledge facilitators (Worley, 2009). The facilitative role that instructors find themselves playing while teaching an online class is but another transformation they will make from their traditional classroom persona. In a study of online students, Heuer and King (2004) found that “as facilitator, the instructor is both guide and learner. Instructors must be trained in this new mode, to facilitate student success and develop online participation, as they themselves develop in the art of becoming an online guide” (p. 7). The constant presence of the course facilitator is an essential step in ensuring that students feel that they are part of an engaging environment, thereby increasing student participation and success in the course.

Technology Expert

Perhaps one of the most challenging roles that an instructor will find himself/herself in while teaching an online course is that of the de facto technology expert. When taking on the role of a technology expert, online instructors find themselves addressing a variety of technical issues. Many instructors find the sheer volume of technology issues in an online course to be a deterrent in the decision whether or not to teach a course (Maguire, 2005). Bi’s (2005) study
found that the value of technology in an online course was described as “a way to bring distance students together – shorten the distance among students, between them and the professor and reduce the isolation they have learning on their own” (p. 40).

Yang (2005) found that “faculty should learn to how use technology, but not completely rely on the technologies. Instead, they should be able to identify and recognize the strength and weakness of technologies, and select the most appropriate delivery mechanism for their lessons” (p. 5). Instructors have taken notice of the value of technology and are designing online courses that are user-friendly and include technological components that complement the content and support student interaction while not overwhelming them with layers of pointing and clicking. Faculty members have a responsibility to their students, and according to Volery’s 2000 findings, it is “crucial that the instructor has good control of the technology and is able to perform basic troubleshooting task such as adding a student at the last minute and modifying students’ passwords” (p. 218).

**Online Course Workload**

The issue of faculty workload has been a point of contention among scholars in the field of online education. Most studies suggest that an online course is going to increase the workload for a given instructor. Cavanaugh (2005), for instance, found that “online courses require significantly larger workloads and report that instructors think teaching online was more difficult than teaching in-class courses” (p. 1). In MacKenzie’s (2000) study of instructors at the State University of West Georgia, “76% of the faculty felt they spent more time, 4-6 hours per course, preparing and delivering WebCT courses compared to traditional face-to-face courses” (p. 4). Such numbers would be enough to give pause to an instructor who was considering creating teaching an online course. DiBiase and Rademacher (2005), however, found that workload in an
online course is actually decreased for an instructor once the course has been established. They found that:

although the online course required more frequent attention (five days per week versus four, on average), it involved slightly less total normalized effort (an average of 2.7 hours per student) than the classroom course (3.2 hours per student), and much less effort overall. (p. 142)

Many faculty members who engage in online instruction soon realize that they are “ill prepared . . . not knowing what is involved in the development and implementation of an online course” (Cuellar, 2002, p. 5). The dynamics of online courses require an instructor to change the ways in which he or she would have normally taught the same course in a traditional manner. Hardy and Bower (2004) concluded that in many cases, “an online instructor serves as a mentor, coordinator, and facilitator of learning rather than a conveyor of information” (p. 48).

**Instructor Training**

Many scholars who have researched the area of online instruction, specifically the issue of faculty training, have agreed that “the success of an online course primarily relies on the originator – the instructor” (Lai, 2007, p. 63). For many instructors, learning how to teach online courses was not explored in their coursework prior to teaching. In order to compensate for the absence of coursework in the area of online instruction, researchers have found that “training and development efforts . . . are likely to strike a resonant chord with other potential adopters of this innovation” (Shea, Pickett, & Li, 2005, p. 17). Providing suitable training to online instructors is invaluable and in many cases, is directly attributed to the success of the course; conversely, many researchers have found that “inadequate training of the instructors is one of the main factors contributing to that failure” (Lai, 2007, p. 62).

Wolf (2006) found that “effective training programs are designed so that faculties are trained to teach online using the course delivery system with which they will be teaching.
Effective programs also require faculty to work as learners and access the course delivery system from the learner’s prospective” (p. 57). In order to stay current with the changing technology as well as student needs, continuous training of faculty should be incorporated into their professional development plan (Clay, 1999).

Training of faculty can occur face-to-face, in group settings, or through printed manuals; however, scholars in the area of faculty training agree that institutions should consider web-based training as an option due to the current economic constraints that many institutions are under (Pagliari, Batts, & McFadden, 2009). Once training has occurred, faculty should be mentored in order to continue building a current knowledge base so as to ensure the development of a successful online course (Muirhead, 2002). Palloff and Pratt (2001) argued that “pairing of faculty who are more experienced online with those who are just starting out helps to break down barriers and provide real, concrete examples of what works and what does not” (p. 23).

Course Preparation

Preparation and delivery of online course content is more complex than simply uploading the syllabus and posting online office hours. Countless hours will be spent writing course lectures and presentations, creating assignments, uploading supplemental web links and preparing exams in a way that will be less conducive to cheating. Visser’s (2000) study of time and effort found that “the instructor spent significantly more time on course content development than in the traditional course . . . more than half of the extra time - 57 hours – was needed to prepare the online lectures” (p.24). Hislop (2004) concurred with the immense workload and also found that instructors were expanding their skills in the area of electronic resources by “refocusing web pages, creating web materials, and developing additional online materials” (p. 17). Smith, Ferguson and Caris found (2005) that:
Because of the reliance on text-based communication and a lack of visual cues, every aspect of the course has to be laid out in meticulous detail to avoid misunderstandings. Every lecture must be converted to a typed document. Directions for every assignment must be spelled out in a logical, self-contained way. Therefore, Web-based distance classes require considerably more work, often including hundreds of hours of up-front work to set up the course. (p. 3)

Even with the additional workload of preparing an online course, many faculty members recognize this as a necessity for the success of online course implementation.

In addition to the various web components that must be created for online courses, Yang (2005) concluded that instructors are also responsible for designing a course that will “put theory into practice by bringing new teaching methods” and knowledge gained from training in the use of technology (p. 7). Creating an engaging online course requires the instructor to shift roles from that required in a traditional classroom setting to an environment with little face-to-face interaction.

Financial Disincentives

One area where financial restrictions are felt by faculty regarding monetary stipends or other forms of compensation for teaching an online course. According to studies conducted in the area of job satisfaction among community college faculty, many felt the “least satisfied with the inadequate pay” (Hutton & Jobe, 1985, p. 320). Other studies, such as the one conducted by Shea in 2007, found that for the amount of work required to develop and teach online courses, the “pay was a demotivator” (p. 74). Additional work responsibilities outside of teaching online classes that many instructors find themselves faced with are addressing delivery method instructional challenges and course development (Belcheir, 2002).

Student Communication

When teaching an online course, communication between the instructor and student is essential to the success of the class. Cavanaugh (2005) found that “any significant reduction in
student communication would have a negative effect on the quality of the instruction” (p. 6). Also supporting the value of communication in an online course is Bi (2004), who found that “the most important relationship in web-based learning is the communication and interaction between the instructor and a distance student” (p. 4). Integrating various ways to communicate in an online course requires special consideration on the part of the instructor. Scholars researching the field of online communication have found that interaction and communication between student and instructor can occur through mediums such as discussions threads, emails, real-time chats and bulletin boards posts, among others.

**Discussions**

Asynchronous communications like those typically found in the form of discussions allow the student to read and respond to postings at their convenience as opposed to synchronous forms like chat rooms that require real-time communication. Hislop’s (2001) study of online delivery found that “discussions among students and instructors were a major element… Average instructor time per student ranged from just over 2.5 hours to about 4.6 hours compared with just over 2.5 hours to almost 4.5 hours for the classroom versions” (p. TIF-24 & 25).

The value of integrating discussions into an online course is seen in the development of the student’s and instructor’s ability to master the art of posting useful and thought provoking discussions. Seen as a tool to better evaluate the progress of the student, discussions are designed to encourage and engage an online student. In terms of increasing the learning curve of student, Smith (2001) found that:

The learning appears more profound as the discussions seemed both broader and deeper. The students are more willing to engage both their peers and the professor more actively. Each student is more completely exposed and cannot simply sit quietly throughout the semester. Just as participating students are noticeable by their presence, the non-participating students are noticeable by their absence. The quality of students’
contributions can be more refined as they have time to mull concepts over as they write, prior to posting. (p. 3)

However, Dunlap (2005) concluded that in cases where “instructors do not complete the interaction loop by responding to each post, learners can feel frustrated and isolated, which can influence the quality of future postings” (p. 18). Instructors can foster the learning environment by being a consistent and reliable presence in the online classroom, thereby providing students with the support and guidance needed to succeed in their course.

Email

Another area of communication that increases an online instructor’s workload is email correspondence. In a 2004 study by Hislop, “97% of faculty indicated as much as threefold increase with online students as compared with traditional students where much of the interaction was via email” (p. 19). Hardy and Bower (2004) concluded that when verbal communication between the student and instructor is absent, “email is often one of the main forms of interaction” (p. 50). Time spent communicating with students is not restricted to office hours, as found in Cavanaugh’s 2005 study where instructors stated that “a significant amount of time was spent both at home and in the office on the telephone answering course questions and dealing with technology related issues” (p. 4). Cavanaugh (2005) went on to share an example of a typical email scenario experienced by an instructor in his study: “[T]he time spent reading and responding to emails varied considerably. Most emails contained short message that said a write-up assignment was attached. But many emails contained a short message that required writing lengthy replies” (p. 4).

Email in an online course is “often one of the main forms of interaction because of the lack of verbal communication between faculty and students,” according to Hardy and Bower (2004, p. 50). Students rely upon the instructor to provide feedback regarding assignments,
discussions and overall class performance and this is accomplished by “spending an inordinate amount of time communicating by email” (Smith 2001, p. 3). Young, in a 2002 article published in *The Chronicle of Higher Education*, concluded that:

> To compensate for the lack of face-to-face interaction, institutions or professors often promise students a quick response to personal correspondence by email – with some pledging to answer all student email message with 24 hours. (p. A31-A33)

A 2000 study conducted by the National Education Association supported this conclusion when they published this statement, “83 percent of faculty teaching Web-based courses use email as the dominant means of communicating with their students, and a significant number of these faculties never has face-to-face interaction with their students” (Hardy & Bower, 2004, p. 50).

**Instructor Dissatisfaction**

Most instructors are able to adapt to the workload of an online course and make adjustments; there is, however, a small but growing number of online instructors who because of the demands of online teaching have reached a saturation point. Exploring this issue among university online instructors, Jackson found that the “overall results” of his study “describe the online instructors to be on the borderline of burnout showing signs of moving toward a high degree of burnout” (quoted in Hogan and McKnight, 2007, p. 123). Maslach (1981) defined academic burnout as “an emotional phenomenon associated with high achievement in the academic role and involves feelings of exhaustion, cynicism, and ineffectiveness” (p. 99). Moreover, Smith, and Taveras (2005) concluded that, because “e-learning arguably creates more work for an instructor . . . teacher absenteeism” is “easier to rationalize (and harder to notice)” (p. 1). In extreme cases, some of these online instructors are even going “AWOL” and abandoning their online courses during a given semester. While not representing “the majority,”
noted Smith and Taveras, these “AWOL” instructors “certainly represent a significant minority,” perhaps as large as a quarter of all online instructors” (p. 1).

Identifying instructor burnout is not as simple as asking an instructor if he or she is having a bad semester or if that instructor would consider teaching the same online course again next semester. Hogan and McKnight (2007) conducted a survey of online instructors and found that “they suffered from an average level of emotional exhaustion, high degree of depersonalization and a low level of personal accomplishment” (p. 122). One example of a model survey for this field of study is Maslach’s Burnout Inventory Educator Survey created by Dr. Christian Maslach. This survey addresses the three dimensions of burnout: emotional exhaustion, depersonalization and personal accomplishment. Dissection of these dimensions is conducted via a 22-question survey that is used in higher education institutions “as a diagnostic tool to label individuals as burned out” (p. 120).

Much of the literature points to online instruction deterrents such as “more work than face-to-face classes,” “reduced personal accomplishments,” “insufficient training” and “technology anxiety” that leads to instructor dissatisfaction and burnout in online education (Hogan, 2007, p. 118). Orr (2009) found that, “helping faculty members to teach online may be as fundamental as appealing to their affective desire to serve students” (p. 267). A study of distance education instructors concluded that “adequately trained instructors will have the tools to succeed in a distance education environment and will likely become more comfortable with it” (Lee & Bush, 2005, p. 114).

A second area of growing concern in the field of online instruction is the absence of instructors’ feelings of accomplishment and satisfaction in their job performance. These emotions are what drive many instructors to teach online courses, and when these motivators are
missing, many instructors might experience a reduction in personal satisfaction. This lack of satisfaction often results in barriers or deterrents to instructors when considering the possibility of continued online instruction. Many instructors experienced “lack of recognition from peers/administration/general staff and students, lack of technical support and ineffective/poor evaluation” as found in a 2007 focus group study by Hiltz, Kim and Shea (p. 7). Experiencing a continual state of negative feelings and dissatisfaction are common stages that typically lead to instructor burnout and possibly even to course abandonment.

A third area of dissatisfaction that instructors are experiencing is the lack of training needed to conduct an online course. Hogan found in his 2007 study that the “process of acquiring the knowledge and training to deliver effective online instruction could be a source of added stress and/or burnout to faculty” (p.118). Instructors who are not armed with the skills to conduct an online course are faced with the challenge of learning to teach in a way contrary to their educational training as well as facing a non-traditional instructional medium. Both of these challenges combined with other online instruction deterrents can be stumbling blocks and even deciding factors for instructors when contemplating the idea of delving into online instruction.

These cases, while some of them extreme, indicate the level of dissatisfaction that some faculty members have with online instruction. The question is how to assess the level of satisfaction that online faculty members have while teaching. In order to examine what provides the most job satisfaction for online instruction, a theoretical framework that best analyzes the dynamics of instructor satisfaction was needed.

Theoretical Framework

The framework selected to build the research model for this project was Frederick Herzberg’s motivation-hygiene or two-factor theory that was developed in 1959. Herzberg
(2008) formulated the theory after conducting interviews with 200 accountants and engineers on which they were asked to describe a time when they were either very pleased or displeased about their job. Herzberg (2008) conducted twelve more similar investigations and subsequently concluded that “motivators were the primary cause of satisfaction, and hygiene factors the primary cause of unhappiness on the job” (p. 25).

The first of the two types of factors, hygiene, are described as “those which relate to the context of the job and are, therefore, dissatisfiers” (Hazer, 1976, p. 12). In Herzberg’s 1993 edition of *The Motivation to Work*, he stated that “hygiene operates to remove health hazards from the environment of man. It is not a curative; it is, rather, a preventive” (p. 113). According to Tuten and August (1998), hygiene factors “describe conditions surrounding a person’s job, such as pay, job security, physical working conditions, company policies, and the like” (p. 555). Other dissatisfiers, cited by Herzberg (1993), included in the list of hygiene or intrinsic factors are “supervision, interpersonal relations, salary, administration and benefits” (p. 113). Employees experience dissatisfaction when these hygiene factors are lacking; however, “when these factors are present,” the employees “do not necessarily experience satisfaction” (Tuten & August, 1998, p. 555). Furthermore, many scholars agree that issues with these factors must be resolved first in order to begin fostering an environment that is conducive for employee satisfaction and motivation (Herzberg, 1993; Syptak, Marsland, & Ulmer, 1999).

By contrast, the second component of Herzberg’s two-factor theory is satisfaction, which is connected to motivation. Motivators, or intrinsic factors, are defined as those which help increase satisfaction, but are not related to dissatisfaction. These “[m]otivators . . . . relate directly to the work a person performs. Motivators included: achievement, advancement, responsibility, recognition, and the work itself (Herzberg, 1993; Maidani, 1991; Tuten & August,
1998). Two other factors, advancement and growth, were also included in Herzberg’s original collection of motivators. Considered to be incentives for the employees, these factors were instrumental in generating more job satisfaction and work efficiency. Significantly, motivators or satisfiers are found to be intrinsically motivating and are linked to better job performance (Schroder & Peterson, 2008; Smerek & Peterson, 2006). Gaziel (2001) noted that:

Herzberg’s theory has made a major contribution to our knowledge and understanding of the nature of job satisfaction. Its main contribution stems from its emphasis that job satisfaction is related to work itself, a finding of practical significance in designing jobs. (p. 616)

Closer examination of the literature surrounding the use of Herzberg’s theory produced various studies that both supported and criticized his theory. Cohen (1974) conducted a study of 222 community college instructors where he tested Herzberg’s two-factor theory of job satisfaction. The study incorporated the critical incident method where each participant was asked to relate aspects of his/her job that caused great dissatisfaction or prompted great satisfaction. Cohen argued that community colleges were the place to test the two-factor theory in order to learn “more about faculty members and the college as a work environment. If the two-factor theory holds, then satisfaction should be related to intrinsic while dissatisfaction should be associated with aspects of the environment extrinsic to the instructor” (p. 372). Supporting Herzberg’s two-factor theory, the findings from the study revealed that most instructors found great satisfaction from their students, either from working with them or learning from them. Instructors also reported great dissatisfaction that was caused by organizational and administrative difficulties and lack of support (Cohen, 1974).

Examining the areas that will improve work life, testing Herzberg’s theory and broadening the knowledge of higher education was what prompted a 2006 study of business operations personnel at a public research university. Smerek and Peterson surveyed 2,700
employees who were queried about job satisfaction in relation to personal and vocational characteristics such as finance, human resources, age and gender. They were also surveyed about the factors that predicted satisfaction. Using the literature and a conceptual model of the interrelationships of work and satisfaction, Smerek and Peterson (2006) developed a 109-question, 10-point Likert scale that was delivered primarily online. The results of the survey showed that the work itself was the most significant predictor of job satisfaction with “women being more satisfied with their work experience” (p. 244). Other positive predictors of satisfaction were the opportunity for advancement and recognition. Of the hygiene factors that were included, effective senior management, effective supervisor and satisfaction with salary were the significant predictors of job satisfaction. According to Smerek and Peterson, the “results indicate that the perceived work environment variables are more important than personal characteristics or job characteristics in predicting job satisfaction” (p. 246). The implications of the results “did not support a clear delineation between intrinsic and extrinsic dynamic as Herzberg’s theory suggested” even though work itself was the clear motivator of job satisfaction (p. 248).

In 2007, a survey of 835 employees at a Christian university was conducted in order to gauge their levels of overall, intrinsic and extrinsic job satisfaction. Included in the group of employees surveyed were faculties, administrators, hourly and salaried staff. Ralph Schroder (2008) chose to use the Professional Satisfaction Scale survey instrument that was based upon Herzberg’s two-factor theory. The survey included five demographic variables such as age, gender, educational level, length of employment, and occupational area as well as 15 items that were reflective of Herzberg’s motivator and hygiene factors. Framing the survey around Herzberg’s work, Schroder “hypothesized that there would be no significant differences between
levels of job satisfaction based on demographic variable” (p. 231). With a 67% return on the surveys, the results showed the relationship with students produced the most satisfaction for faculty members. Following close behind was the work itself and relations with peers, which according to many scholars “contributes to both intrinsic and extrinsic job satisfaction” (p. 239). The findings also indicated that those over 50 years old were significantly more satisfied than their younger colleagues. Additional findings from the survey echoed what many other studies have shown in that employees were dissatisfied with their salaries, organization policies and administration, and professional development (Diener, 1985; McBride, Munday, & Tunnell, 1992). Schroder found from this study that job satisfaction was substantially influenced by demographic factors such as age and educational level (2008).

The journal *Teaching and Learning in Nursing* published a study in 2010 that investigated the factors of job satisfaction among a group of community college nursing faculty. The survey was designed to examine the relationship between job satisfaction and the intent to stay as well as contribute to a sparse area of literature on the community college setting. Survey participants were selected from 23 community colleges in Florida and were administered the questionnaire via SurveyMonkey. The survey was modeled after Herzberg’s Motivation to Work theory and included ten open-ended questions. Findings from the survey showed that even though faculties were the most “passionate about their salary and supervision” they were dissatisfied with their compensation in relation to their level of education and time spent at work (p. 23). Faculty also reported “they have good working conditions” and “a general satisfaction with their relationships in their workplace” (Lane, 2010, p. 20). Relationships in the workplace, both personal and professional, were found to increase job satisfaction (Lane, 2010; Schroder,
Feeling a “sense of achievement” in their work as well as seeing the success in their students’ work increased the faculty members’ love for their job (Lane, 2010).

Castillo and Cano (2004) conducted a survey of faculty at the College of Food, Agricultural, and Environmental Sciences at The Ohio State University in order to “describe the amount of variance in faculty member’s overall level of job satisfaction and investigate the suitability of a one-item versus a multi-item measure of overall job satisfaction” (p. 67). Familiar with various job satisfaction surveys and the increase in the number of articles on the subject, Castillo and Cano (2004) found that the literature base was barren in terms of agricultural faculty research on validating job satisfaction using a one-item measure as well as describing the variability of “job satisfaction scores by a linear relationship of the motivator-hygiene factors” (p. 67). The survey was based upon Herzberg, Mausner, and Snyderman’s (1959/1993) motivator-hygiene theory and was comprised of three parts. The three parts were the Job Satisfaction Index, a modified Wood’s Faculty Satisfaction/Dissatisfaction Scale, and a demographic characteristics questionnaire. The results from the survey showed that the work itself was the most motivating factor for faculty and that the least motivating was the working conditions. Supervision, recognition, and relationships were named as the variables among overall job satisfaction, thereby revealing that “to elevate the collective overall level of job satisfaction among faculty members, college administration must focus on improving the recognition, supervision and interpersonal relationship aspects of a faculty member’s job” (p. 72).

Herzberg’s two-factor theory has served in a reoccurring role as a theoretical framework for determining job satisfaction since its inception in 1959. Research on job satisfaction in higher education has benefitted from the use of the theory, especially in areas such non-academic...
faculty, nursing faculty, women and minorities, and agricultural faculty. Determination of job satisfaction is important for higher education institutions in order to provide administrators with the information on what is necessary to recruit and retain qualified personnel and develop and maintain quality programs to allow for the continuation of support for the mission of the rural community college. Even though Herzberg’s theory has been applied to community colleges, it has rarely, if ever, been used to assess the job satisfaction of online faculty at rural community colleges.

The current study applied the hygiene and motivators found in Herzberg’s original work to job satisfaction of online instructors at rural community colleges. The goal was to validate the premise that hygiene factors, when lacking, lead to dissatisfaction and motivators, when present, increase satisfaction. Utilization of Herzberg’s (1959) ten job satisfaction factors in addition to the primary research questions served as the foundation for incorporating the following constructs into the survey design. They included the following:

1. *Company policy and administration (hygiene).* House and Wigdor (1967) found this to be a dissatisfier “that promotes ineffectiveness or inefficiency within the organization” (p. 370). Syptak, Marsland, and Ulmer (1999) argued that “you can decrease dissatisfaction in this area by making sure your policies are fair and apply equally to all” (p. 27);

2. *Supervisory presence (hygiene).* Faculty relations with a supervisory presence were found to be satisfactory when they could “control job aspects and work in an environment that encourages professional autonomy” (Satterlee, 1988, p. 23). According to Hagedorn (1996), “overall job satisfaction has been generally linked with perceived support and interactions with superiors or facilitators” (p. 217);
3. *Interpersonal relations (hygiene).* Herzberg’s 1993 book defined these as “characteristics of the interaction between superiors, subordinates, and peers” (p. 46). Hutton and Jobe (1985) found that “faculties appear most satisfied with the relationship with supervisors and colleagues” (p. 319.) Hagedorn (1996) concurred with this statement: “colleague relationships may be even more important for college faculty because, unlike many other professions, the competence of colleagues has personal implications” (p. 571);

4. *Working Conditions (hygiene).* Padilla-Velez’s study (as cited in Castillo and Cano, 2004) defined working conditions as “physical working conditions, facilities, and quality of work as related to job satisfaction” (p. 66). Castillo and Cano (2004) found that the working conditions were the “least motivating aspect of faculty member’s jobs” (p. 72);

5. *Salary (hygiene).* Defined as a “sequence of events” in which “compensation plays a role in either the form of a wage increase or unfulfilled expectations of salary increase” (Herzberg, 1993, p. 46). Studies on rural colleges have found that faculty was dissatisfied with their compensation and benefits in relation to their workload (Isaac & Boyer, 2007; Lane, 2010);

6. *Achievement (motivator).* Defined as not only “failure, and the absence of achievement”, but the successful completion of a job, solutions to problems, vindication, and seeing the results of one’s work” (Herzberg, 1993, p. 45);

7. *Recognition (motivator).* Receiving praise or recognition for job performance by a supervisor or colleague is a criterion for this category. Moxley (1977) found that
“some act of notice, praise, or blame was involved, and the source could be almost anyone” (p. 7);

8. **Work itself (motivator).** This determinant, according to Moxley (1977), “was used when the respondent mentioned the actual doing of the job or the tasks of the work as a source of good or bad feelings” (p. 8). McBride’s 1992 study found that the work itself and interpersonal relations provided the most satisfaction to faculty member;

9. **Responsibility (motivator).** Described as the sequence of events that occur from the responsibility of one’s own work or that of others (Herzberg, 1993); and

10. **Advancement (motivator).** Whether it be in the form of a formal promotion or pay grade increase, Castillo and Cano (2004) found that advancement was “designated an actual change in job status” (p. 66).

As a review of the literature has illustrated, online instruction in higher education is growing and an increase in online offerings at rural community colleges is a large part of this growth. However, the growth in online offerings at these institutions is accompanied with a set of challenges pertaining to both online instruction and the faculty who teach online courses. While scholarship has assessed the impact of such challenges on the community college as a whole, only cursory attention has been paid to the issue instructor satisfaction in online courses, specifically for experienced instructors who teach at rural community colleges. The degree to which these instructors are influenced by hygiene and motivational factors still needs to be ascertained.
CHAPTER III:
METHODS

Statement of and Rationale for Overall Research Approach

The principle purpose of this study was to discover what factors are related to satisfaction of online instructors at rural community colleges. Truell, Price & Joyner (1998) argued that there was a need to study job satisfaction of community college faculty due to the increase in student enrollment as well as the growth of faculty at community colleges.

The primary method that was used to complete the research for this project was a quantitative inquiry in the form of a customized survey based upon Herzberg’s two-factor theory (1959) and subject matter. Quantitative research is best defined by Creswell (2003) in this statement:

A quantitative approach is one in which the investigator primarily uses post positivist claims for developing knowledge (i.e. cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories). (p. 19)

Creswell also noted that typically the motivation for selecting quantitative research was to “provide a measurement orientation in which data can be gathered from many individuals and trends assessed across large geographic regions” (as cited in Creswell & Garrett, 2008, p. 322). By using a quantitative research method, the relationship between motivators and job satisfaction was more accurately measured through numerical data collection than interpretive or qualitative data collection.

One way to secure the kind of information sought is through the use of a customized survey. Selection of a survey research design for this study was primarily based upon the
convenience of mass delivery from a remote location and the automatic collection of data. The goal of the survey was to find out what factors are related to job satisfaction of online instructors at rural community colleges. Guided by Herzberg’s two-factor theory, the survey used for this study was framed around the following three research questions:

1. What hygiene factors are most related to job satisfaction for community college instructors who teach online courses;
2. What motivator factors are most related to job satisfaction for community college instructors who teach online courses; and
3. Is there a relationship between faculty demographic characteristics and overall job satisfaction?

Instrument Design

The survey consisted of 31 open-ended questions designed to gauge the level of satisfaction of online instructors. In order to rank the items in the survey, the following set of modified Likert Scale ratings was used: very satisfied, satisfied, dissatisfied, and very dissatisfied. The goal of the survey instrument was to quickly and efficiently collect information from a select group of participants.

The survey was divided into the four sections: basic demographic information, questions associated with the hygiene and motivator constructs from Herzberg’s (1959) two-factor theory and online instruction variables at each institution. The survey instrument was designed and delivered using SurveyMonkey, a free, web-based survey tool. SurveyMonkey was used to administer the surveys using a variety of formats as well as for collecting and analyzing survey results via cross tabulation and filtering. Results were exported to other applications and locations for demonstration and data sharing purposes.
The first section of the survey focused on basic demographic information such as gender and age as well as instructional queries such as the number of online courses taught in a semester, the years of experience teaching online courses and the number of years of college teaching experience. This information was useful in finding out information such as whether or not veteran instructors teach online courses more than novice instructors. This section was used in the final analysis of comparing demographics to the hygiene factors and motivational factors.

The remaining three sections of the survey addressed both hygiene factors and motivators and online instruction variables at each institution. The second and third sections of the survey addressed the rating and evaluation of the various hygiene factors and motivators for teaching online courses. The hygiene factors and motivators used in this section were categorized based upon their functional area, i.e., level of support, fiscal items, etc. By categorizing the two groups of factors, data analysis was conducted on each item individually and items grouped categorically. The fourth section of the survey focused on online instructional variables such as the evaluation of online training, support services, and type of course management system used at each institution. See Appendix A for the survey in its entirety.

Context of the Study

The Alabama public two-year community college system was the primary target group of this study, thereby providing a wealth of information from a range of institutions. The Alabama two-year community college system was originally placed under the State Board of Education while George C. Wallace was governor. Wallace’s “motivation for the junior college and trade school program came from discussions with his father, George C. Wallace, who passed the legislation that created the first postsecondary trade school in Gadsden, Alabama, in 1925” (Katsinas, 1994, p. 450). In 1982, the Alabama Legislature created the Department of
Postsecondary Education, separating the two-year community colleges from the State Department of Education, and creating the position of Chancellor (Alabama Community College System, 2010). By the time Wallace left office in 1987, there were 41 separately administered two-year institutions serving over 60,000 students (Katsinas, 1994).

The following two decades saw many changes in the Alabama Community College system, most notably the mergers that reduced the number from 41 to 26 colleges with 22 of those being comprehensive community colleges and four technical colleges, all of which are governed by the State Board of Education. The community college system serves over 300,000 students annually with 125,000 of those students enrolled in credit courses (Alabama Community College System, 2010). Providing a quality education to freshman and sophomores, the community college system is charged with preparing students for a variety of academic or career options. According to the Alabama Community College System web site, the community college system provides the following:

1. General education and other collegiate programs at the freshman and sophomore levels prepare students for transfer to four-year institutions to complete baccalaureate degrees, as well as an upper division university that provides selected baccalaureate programs;

2. Adult education focuses on improving individuals’ skills, productivity and training with GED preparation and testing, basic skills, and English as a Second Language; and

3. Workforce development initiatives provide customized, flexible, short-term training programs that are responsive to industry needs—from highly specialized
training to programs that help prepare entry level employees to meet growing
demands (Alabama Community College System, 2010).

The mission of the Alabama Community College is “to provide a unified system of institutions
dedicated to excellence in delivering academic education, adult education, and workforce
development” (Alabama Community College System, 2010).

The Alabama Community College system has significantly evolved since its inception
some five decades ago. The evolution of the system has included a reduction in the number of
institutions, change in leadership and refinement of the mission by which it stands. Another
change that has occurred in the rural community college sector is the growth of distance
education. Located in sparsely populated areas, rural community colleges are faced with “low
enrollments and correspondingly small number of full-time and part-time faculty members,”
therefore, offering online courses is a way to “maximize instructional assets” (Leist & Travis,
2010, p. 18).

The Alabama Community College system is divided into three categories based upon the
Carnegie Foundation for the Advancement of Teaching classification system: rural, suburban and
urban-serving. Suburban and urban are characterized as being located in metropolitan areas with
populations greater than 500,000 people. Rural-serving institutions are divided into three
classifications: rural-serving small, rural-serving medium, and rural-serving large. Each rural
classification is determined by the “institutional size based on full-year unduplicated credit
headcount, where small is defined as less than 2,500; medium as 2,500 through 7,500; and large
as greater than 7,500. Size is based on IPEDS data for 2003-04” (Carnegie Foundation for the
Advancement of Teaching, 2010). The classification is significant in that there is a clear
distinction between urban, suburban and rural community colleges, making research data easier to analyze based on college type.

Site Selection and Rationale

In an effort to contribute to the scholarship concerning rural community colleges, this study focused primarily on Alabama’s 17 rural community colleges, an underrepresented group in terms of scholarly investigation. Suburban and urban community colleges within the state were excluded from this study.

Selection of the 17 colleges was based on the definition of rural as stated by the U.S. Census Bureau: classification of "rural" consists of all territory, population, and housing units located outside of UAs, (urbanized area) and UCs (urban cluster) (2010). In addition to using the U.S. Census Bureau’s definition, the selection of rural community colleges was chosen by accessing a list of rural community colleges from the Carnegie Foundation for the Advancement of Teachings website (2010). The Carnegie Foundation website has a comprehensive collection of classifications that can be accessed by creating a custom list based on a grouping of basic classifications and location of institutions. Once the listing of institutions was collected from the Carnegie Foundation, it was cross-referenced against the list of colleges as they appear on the Alabama Community College website for verification of accuracy. Once verification of the colleges was ensured, the final list of institutions was compiled and documented. Appendix B shows the distribution list of rural community colleges, their location, and population size.

Subject Selection and Rationale

The subjects for this study were rural community college full-time faculty members who had taught at least one online course during the 2009-2010 academic year. The subject group was
comprised of instructors from various disciplines and was chosen based upon recent experience in the online environment.

The primary reason for choosing full-time faculty members for this study was rather straightforward: they do most of the online teaching. According to Allen and Seaman’s Sloan Consortium Report (2005), the primary source of instruction for online courses was full-time faculty. For many rural community colleges, staffing issues are a problem in that they “do not commonly have a large pool of qualified adjuncts to draw from” concluded Cejda (2007, p. 93). Full-time faculties were able to provide deeper insight into the world of online instruction by providing detailed information about how they taught online courses. Experienced faculty members were able to provide feedback concerning what factors increase or decrease their satisfaction as online instructors.

In order to determine who would be selected to participate in the survey, an email was sent to the President and Dean of Instruction for each qualifying institution requesting permission to survey their faculty. Once approval was granted, an attachment with an embedded survey link was sent via email to a designated institutional contact. The email was then forwarded to their faculty with an invitation to participate in the survey. Upon starting the survey, faculties were asked to identify if they were full-time or part-time. Only those who answered full-time were allowed to complete the survey, thereby eliminating those who classified themselves as part-time.

Data Collection Procedure and Rationale

Data collection was accomplished by contacting the subject group via email where they were invited to participate in a brief online survey. Upon clicking the survey link, the participants were asked to indicate if they were full-time or part-time. Those who indicated they
were full-time were directed to the remaining portions of the survey while those who indicated they were part-time were exited from the survey. Upon entering the survey, a short introduction of the researcher and the institution for which the research was being conducted was included. The subject group was provided with the basic information of the project, such as the general purpose and rationale for conducting the research. Also included in the survey was information about the value of completing the survey in regards to furthering the research in the area of online instruction at rural community colleges not only in Alabama, but nationwide. The subject groups were encouraged to help with this research in hopes of discovering what factors are related to satisfaction of online instructors at rural community colleges. The subjects were informed about the lack of information in this area of research and were invited to help develop and contribute to the researcher’s work. Participants were advised that the survey would take no longer than 10 minutes and their participation was strictly voluntary and completely confidential. A link to the survey was provided and could be accessed from within the email. After one week, follow-up emails were sent to the subjects who had not yet responded, requesting them to complete the survey.

Data Analysis Techniques

Upon survey completion, data analysis began by using a statistical software package, SPSS. Data analysis is one of the most critical components in quantitative research, and SPSS produces accurate and precise results. SPSS is designed to conduct various statistical analyses that are useful in clarifying the findings from the surveys in clear and concise method; such as tables and charts.

Data analysis was conducted through the use of stepwise regression analysis, descriptive statistics, Levene’s Test of Homogeneity of Variance, ANOVA, and Robust Tests of Equality of
Means using the Welch & Brown-Forsythe tests. Stepwise regression analysis was used to collect an overall rating of both the hygiene and motivator factor groups after which the items were summed and compared to a set of demographic variables. Frequency and percentage analysis was conducted on each individual factor with emphasis placed on items with a significant variance. The individual items were also compared against the demographic item set. Levene’s Test of Homogeneity of Variance was run to determine if the groups had equal variance on the dependent variable. Data analysis of the demographic items consisted of the T-test and analysis of variance, ANOVA, test in order to determine if there was a statistically significant difference between the group means. In addition to the ANOVA, further analysis to determine if the population samples had significant differences between their means was established by running the Robust Tests of Equality of Means using the Welch & Brown-Forsythe tests. Patterns or common occurrences were revealed from the results and based on those occurrences, recommendations and implications were made thereby allowing for future changes and or additional research. See Appendix A for the full survey instrument.

**Ethical Considerations**

When conducting the research, there were several facets of ethical consideration that were taken into account. One way to ensure that this study adhered to ethical standards was by following a set of guidelines and standard practices developed by the Institutional Review Board (IRB). The IRB is responsible for ensuring that human subjects are afforded safe and ethical treatment during research. In many institutions, proposals for research must be submitted and approved by the IRB before a study can be conducted. See Appendix C for IRB approval letter.

The IRB evaluated the ethical considerations of the proposal to ensure that the researcher considered the well-being of the target group. One of the first steps that were completed before
administering the survey was to obtain permission from the participants who were involved in the study. The participants were informed of the purpose for the study and the societal value gained by the study. Providing this general data to the participants ensured that they were well aware of the implications of the study. Participants were also informed that if they decided to participate in the study, their responses would be kept confidential and their privacy would be respected. Any possible risks for the participants involved were conveyed to them at the time that permission was requested. Participants were also advised about their right to withdraw from the survey at any time without penalty.

As the survey was being designed, special attention was paid to the wording of the questions so as to not sway the participants to answer in a certain direction. The survey was not geared toward one gender, discipline or mindset. The reporting of survey results was also another area of concern with regards to ethical considerations. In addition to reporting accurate results, the researcher also gave credit to any outside person or institution that may have helped design the survey instrument, collect, analyze, and report information from the study.

Quality Assurance

One assurance of the quality of the research project was the evaluation of the content validity of the results. Content validity “is established by showing that the test items are a sample of a universe in which the investigator is interested and …by defining a universe of items and sampling systematically within this universe to establish the test” (Cronbach, 1955). In order to ensure the content validity of the variables, a panel of subject matter experts, i.e. full-time online instructors, evaluated the survey instrument. The panel examined the variables of the survey to ensure they were an accurate representation of what was being measured. The panel was also asked to assess the overall consistency and precision of the survey. After the survey instrument’s
content validity was acknowledged, it was implemented in a pilot test to measure its reliability. Once the survey results were collected and analyzed, the information was entered into SPSS then compiled and produced the results to determine if the tool measured what it was designed to measure.

This survey was developed for the purpose of conducting an exploratory study at 17 rural community colleges in the state of Alabama. The survey took place in the spring semester of the 2011 academic year and was sent via-email to every instructor in the target group of institutions. Since there is a dearth of scholarship related to the rural community college online instructor and factors related to their satisfaction, the goal of this project is to evaluate emerging trends and thus further the scholarship in this field.

Researcher Positionality

In regards to researcher positionality, it should be noted that the researcher is a full-time online instructor at a rural community college. However, this position did not interfere with the researcher’s ability to conduct this study with objectivity and integrity. This also has no bearing upon the researcher’s ability to collect data, perform an unbiased analysis and report the findings as they appear. The researcher did not take part in the survey nor did the researcher engage in any discussion with anyone about the survey once was disseminated to the faculty. The researcher was a detached observer and made every attempt to assure the survey process was unbiased and impartial in order to yield the truest results.
CHAPTER IV:

RESULTS

Introduction

The literature in the area of online instruction is sparse in terms of what factors are related to satisfaction of online instructors at rural community colleges. This study was conducted in order to identify the factors that are related to job satisfaction of online instructors at rural community colleges. The 31-question, Likert-type scale survey that was designed for use in this study was modeled after Frederick Herzberg’s (1959) two-factor theory. Herzberg’s two-factor theory was comprised of hygiene factors, or dissatisfiers, that if absent would increase satisfaction, and motivators that when present, increase satisfaction.

Sample Selection

The participants chosen for this study were instructors who taught online courses at Alabama’s rural community colleges. This sample population was selected primarily due to their expertise in the area of online instruction, but also to fill a void in the scholarly literature addressing online instruction at rural community colleges. There are 17 rural community colleges in Alabama and all were asked to participate in this study. The Carnegie Classification system was used to determine which institutions would be classified as rural. Email containing information regarding the study and permission to survey their faculty was sent to the President and Dean of Instruction at each of the 17 institutions. Faculty members at the participating institutions received an email from their President’s office asking them to participate in the study. Inside the email was a description of the study with an embedded link to the survey
instrument. Of the 17 rural institutions invited to participate in the study, 11 elected to allow their faculty to take part (see Table 1). There does not seem to be a pattern between the colleges that decided to participate: five were classified as rural-serving large three were classified as rural-serving medium and three were classified as rural-serving small. However, there does seem to be a correlation among the schools that chose not to participate in that four of the five were classified as rural-medium serving institutions.

Table 1

*Institutions Included in Study Population*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Carnegie Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bevill State Community College</td>
<td>Associate’s - Public Rural serving Medium</td>
</tr>
<tr>
<td>Gadsden State Community College</td>
<td>Associate’s- Public Rural serving Large</td>
</tr>
<tr>
<td>George C. Wallace State Community College (Dothan)</td>
<td>Associate’s - Public Rural serving Large</td>
</tr>
<tr>
<td>George C. Wallace State Community College (Hanceville)</td>
<td>Associate’s - Public Rural serving Large</td>
</tr>
<tr>
<td>George C. Wallace State Community College (Selma)</td>
<td>Associate’s - Public Rural serving Large</td>
</tr>
<tr>
<td>Jefferson Davis Community College</td>
<td>Associate’s – Public Rural-serving Small</td>
</tr>
<tr>
<td>John C. Calhoun State Community College</td>
<td>Associate’s - Public Rural serving Large</td>
</tr>
<tr>
<td>Lurleen B. Wallace Community College</td>
<td>Associate’s – Public Rural serving Small</td>
</tr>
<tr>
<td>Northwest Shoals Community College</td>
<td>Associate’s – Public Rural serving Medium</td>
</tr>
<tr>
<td>Snead State Community College</td>
<td>Associate’s – Public Rural serving Small</td>
</tr>
<tr>
<td>Southern Union State Community College</td>
<td>Associate’s Public Rural serving Medium</td>
</tr>
</tbody>
</table>
Table 2
Summary of Demographic Variables

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th># of Participants (n=144)</th>
<th>% of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>7</td>
<td>(5%)</td>
</tr>
<tr>
<td>31-40</td>
<td>29</td>
<td>(20%)</td>
</tr>
<tr>
<td>41-50</td>
<td>49</td>
<td>(34%)</td>
</tr>
<tr>
<td>51-60</td>
<td>48</td>
<td>(33%)</td>
</tr>
<tr>
<td>Above 60</td>
<td>11</td>
<td>(76%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>(31%)</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
<td>(69%)</td>
</tr>
<tr>
<td>Tenured vs. Non Tenured</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenured</td>
<td>124</td>
<td>(86%)</td>
</tr>
<tr>
<td>Non-Tenured</td>
<td>20</td>
<td>(14%)</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>9</td>
<td>(6%)</td>
</tr>
<tr>
<td>Master’s</td>
<td>85</td>
<td>(59%)</td>
</tr>
<tr>
<td>Doctorate</td>
<td>37</td>
<td>(26%)</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>(9%)</td>
</tr>
<tr>
<td>Semesters of Online Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>20</td>
<td>(14%)</td>
</tr>
<tr>
<td>3-6</td>
<td>29</td>
<td>(20%)</td>
</tr>
<tr>
<td>6-9</td>
<td>17</td>
<td>(12%)</td>
</tr>
<tr>
<td>9-15</td>
<td>33</td>
<td>(23%)</td>
</tr>
<tr>
<td>15+</td>
<td>45</td>
<td>(31%)</td>
</tr>
<tr>
<td>Online Courses per Semester</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>65</td>
<td>(45%)</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>(31%)</td>
</tr>
<tr>
<td>3 or more</td>
<td>35</td>
<td>(24%)</td>
</tr>
<tr>
<td>Years Teaching Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>8</td>
<td>(5%)</td>
</tr>
<tr>
<td>3-7 years</td>
<td>28</td>
<td>(19%)</td>
</tr>
<tr>
<td>7-10 years</td>
<td>18</td>
<td>(12%)</td>
</tr>
<tr>
<td>10-15 years</td>
<td>35</td>
<td>(24%)</td>
</tr>
<tr>
<td>15+ years</td>
<td>55</td>
<td>(38%)</td>
</tr>
</tbody>
</table>
Table 3  
*Summary of Course Management System Used by Participants*  

<table>
<thead>
<tr>
<th>Course Management System</th>
<th># of Participants (Total: 144)</th>
<th>% of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard</td>
<td>102</td>
<td>(71%)</td>
</tr>
<tr>
<td>Course Compass</td>
<td>5</td>
<td>(3%)</td>
</tr>
<tr>
<td>Angel</td>
<td>0</td>
<td>(0%)</td>
</tr>
<tr>
<td>Moodle</td>
<td>20</td>
<td>(14%)</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>(12%)</td>
</tr>
</tbody>
</table>

Table 4  
*Summary of Online Instructor Training and Support Services*  

<table>
<thead>
<tr>
<th>Training and Support Services Received</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not Satisfied</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness of training to teach online</td>
<td>42 (29%)</td>
<td>60 (42%)</td>
<td>33 (23%)</td>
<td>9 (6%)</td>
<td>144</td>
</tr>
<tr>
<td>Quality of training to teach online</td>
<td>46 (32%)</td>
<td>58 (40%)</td>
<td>30 (21%)</td>
<td>10 (7%)</td>
<td>144</td>
</tr>
<tr>
<td>Accessibility of day to day online teaching support</td>
<td>53 (37%)</td>
<td>50 (35%)</td>
<td>29 (20%)</td>
<td>12 (8%)</td>
<td>144</td>
</tr>
<tr>
<td>Quality of day to day teaching support</td>
<td>48 (33%)</td>
<td>61 (42%)</td>
<td>27 (19%)</td>
<td>8 (6%)</td>
<td>144</td>
</tr>
</tbody>
</table>

** Percentages may not equal 100% due to rounding.
Table 5

Summary of Hygiene/Motivator Factors Evaluation

<table>
<thead>
<tr>
<th>Hygiene/ Motivator Factors</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Somewhat Satisfied</th>
<th>Not Satisfied</th>
<th>Total Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hygiene – Level of Support:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervision</td>
<td>38</td>
<td>73</td>
<td>25</td>
<td>8</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(26%)</td>
<td>(51%)</td>
<td>(17%)</td>
<td>(6%)</td>
<td></td>
</tr>
<tr>
<td>Interper. Relat. w / Superv.</td>
<td>55</td>
<td>25</td>
<td>59</td>
<td>5</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(38%)</td>
<td>(17%)</td>
<td>(41%)</td>
<td>(3%)</td>
<td></td>
</tr>
<tr>
<td>Interper. Relat. w / Subord.</td>
<td>47</td>
<td>75</td>
<td>19</td>
<td>3</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(33%)</td>
<td>(52%)</td>
<td>(13%)</td>
<td>(2%)</td>
<td></td>
</tr>
<tr>
<td>Interper. Relat. w/ Peer</td>
<td>45</td>
<td>80</td>
<td>17</td>
<td>2</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(31%)</td>
<td>(56%)</td>
<td>(12%)</td>
<td>(1%)</td>
<td></td>
</tr>
<tr>
<td>Phys. Work. Cond.</td>
<td>44</td>
<td>69</td>
<td>23</td>
<td>8</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(31%)</td>
<td>(48%)</td>
<td>(16%)</td>
<td>(6%)</td>
<td></td>
</tr>
<tr>
<td><strong>Hygiene – Fiscal Issues:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Compensation</td>
<td>24</td>
<td>71</td>
<td>30</td>
<td>19</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(16%)</td>
<td>(49%)</td>
<td>(21%)</td>
<td>(13%)</td>
<td></td>
</tr>
<tr>
<td>Inst. Pol. / Admin. Practice</td>
<td>22</td>
<td>77</td>
<td>29</td>
<td>16</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(15%)</td>
<td>(53%)</td>
<td>(20%)</td>
<td>(11%)</td>
<td></td>
</tr>
<tr>
<td>Benefits &amp; Services</td>
<td>29</td>
<td>76</td>
<td>28</td>
<td>11</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(20%)</td>
<td>(53%)</td>
<td>(19%)</td>
<td>(8%)</td>
<td></td>
</tr>
<tr>
<td>Job Security</td>
<td>40</td>
<td>82</td>
<td>19</td>
<td>3</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(28%)</td>
<td>(57%)</td>
<td>(20%)</td>
<td>(2%)</td>
<td></td>
</tr>
<tr>
<td><strong>Motivator:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Achieve.</td>
<td>45</td>
<td>75</td>
<td>20</td>
<td>4</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(31%)</td>
<td>(52%)</td>
<td>(14%)</td>
<td>(3%)</td>
<td></td>
</tr>
<tr>
<td>Professional Recognition</td>
<td>25</td>
<td>70</td>
<td>35</td>
<td>14</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(17%)</td>
<td>(49%)</td>
<td>(24%)</td>
<td>(10%)</td>
<td></td>
</tr>
<tr>
<td>Professional Responsibility</td>
<td>38</td>
<td>87</td>
<td>14</td>
<td>5</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(26%)</td>
<td>(60%)</td>
<td>(10%)</td>
<td>(3%)</td>
<td></td>
</tr>
<tr>
<td>Work Itself</td>
<td>47</td>
<td>78</td>
<td>15</td>
<td>4</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(33%)</td>
<td>(54%)</td>
<td>(10%)</td>
<td>(3%)</td>
<td></td>
</tr>
<tr>
<td>Oppor. For Advanc. / Growth</td>
<td>26</td>
<td>62</td>
<td>42</td>
<td>14</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>(18%)</td>
<td>(43%)</td>
<td>(29%)</td>
<td>(10%)</td>
<td></td>
</tr>
</tbody>
</table>

** Percentages may not equal 100% due to rounding.
Data Collection

Once the survey was distributed to the sample population, the data collection process began. Through the use of SurveyMonkey, the collection of data was streamlined into one central database. The survey was distributed to approximately 300 faculty members who taught online courses in the 2009-2010 academic years. The survey was administered in the Spring of 2011 via institutional email. A follow-up email was sent to faculty members two weeks after distribution with another invitation to participate in the survey. One month after being distributed to faculty members, the survey was closed upon which data analysis began. There were 179 usable surveys returned with 144 completed in their entirety for a response rate of 60%.

Data Results

Research Question One

What hygiene factors are most related to job satisfaction for community college instructors who teach online courses?

The survey contained nine questions that related to hygiene factors and satisfaction of community college instructors who taught online courses. Responses for this question set were very satisfied, satisfied, somewhat satisfied, and not satisfied. After the survey closed, data collected via SurveyMonkey was then exported into a Statistical Package for Social Sciences, SPSS, for data analysis and output. To evaluate what factors are related to satisfaction, Fisher’s probability test, p<.05, was used as the standard level of significance. Data analysis for research question one was conducted through a variety of methods that included stepwise regression and analysis of variance.

The first step in the data analysis was to standardize the scores from the survey results. Standardization of the scores or performing a z transformation, allowed for a better measure to quantify the original score in terms of where the standard deviation was from the mean. The z
transformation of data was performed in order to examine what factors were significant predictors of satisfaction. After the z score of the motivators and hygiene factors was gathered, the data was collated into a coefficients diagnostics output file.

A linear regression analysis was performed using the stepwise regression statistical method, stepwise regression. In order to complete the stepwise regression analysis, both dependent and independent variables were entered into the data analysis menu. The dependent variable was identified as overall job satisfaction with conducting online instruction and the independent variables were identified as the z score of each of the nine hygiene factors: supervision, interpersonal relationship with supervisor, interpersonal relationship with subordinate, interpersonal relationship with peer, physical working conditions, level of compensation, institutional policies and administrative practices, benefits and services and job security. Based upon the theory of stepwise regression, each independent variable was individually factored into the model only if they meet the statistical criteria of p<.05. However, if the variable did not contribute significantly to the model, it was removed.

Table 6 shows the variables that were entered into the stepwise regression model based upon their statistical contribution to the model. The nine hygiene factors were individually tested for significance prior to entering the model and there were four hygiene factors that met the criteria: benefits and services, supervision, physical working conditions, and interpersonal relationship with peers.
Table 6

*Model Summary for Hygiene Factors Entered/Removed*

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zscore</td>
<td>(Benefits_Services)</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .050, Probability-of-F-to-remove &gt;= .100).</td>
</tr>
<tr>
<td>2</td>
<td>Zscore</td>
<td>(Supervision)</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .050, Probability-of-F-to-remove &gt;= .100).</td>
</tr>
<tr>
<td>4</td>
<td>Zscore</td>
<td>(Interpersonal_peer)</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .050, Probability-of-F-to-remove &gt;= .100).</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Overall_How_Satis

Table 7 shows the model summary where the adjusted $R^2$ was evaluated after each variable was entered. The value of the adjusted $R^2$ for Model 1 after the addition of benefits and services was .345. Model 2 shows the addition of supervision and a corresponding adjusted $R^2$ of .448. The addition of physical working conditions to Model 3 resulted in an adjusted $R^2$ of .505. Model 4 had an adjusted $R^2$ of .521 as a result of the addition of interpersonal relationship with peers. The increase in the adjusted r-square value for each model indicated that the model improved with the entry of each new variable more than would be expected by chance. The coefficient of determination, $R^2$, is .521, meaning that 52% of the variance in overall satisfaction of online instruction was attributed to the four hygiene factors found in Model 4.
Table 7

Model Summary for Stepwise Regression Analysis for Overall Satisfaction and Hygiene Factors

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change R Square</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.591&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.349</td>
<td>.345</td>
<td>.620</td>
<td>.349</td>
<td>76.282</td>
<td>1</td>
<td>142</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>.675&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.456</td>
<td>.448</td>
<td>.569</td>
<td>.106</td>
<td>27.562</td>
<td>1</td>
<td>141</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>.718&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.515</td>
<td>.505</td>
<td>.539</td>
<td>.059</td>
<td>17.111</td>
<td>1</td>
<td>140</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>.731&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.535</td>
<td>.521</td>
<td>.530</td>
<td>.019</td>
<td>5.799</td>
<td>1</td>
<td>139</td>
<td>.017</td>
</tr>
</tbody>
</table>

Notes. a. Predictors: (Constant), Zscore (Benefits_Services) b. Predictors: (Constant), Zscore (Benefits_Services), Zscore (Supervision) c. Predictors: (Constant), Zscore (Benefits_Services), Zscore (Supervision), Zscore (Physical_Working_Cond) d. Predictors: (Constant), Zscore (Benefits_Services), Zscore (Supervision), Zscore (Physical_Working_Cond), Zscore (Interpersonal_peer) e. Dependent Variable: Overall_How_Satis

Table 8, ANOVA, table illustrates that each of the four models was significant with a value of .000. Once the models were tested for significance, then each variable was evaluated to examine whether they would be instrumental in predicting satisfaction. The inclusion of the four hygiene variables yielded the following results: benefits and services, F (1, 143) = 76.82, p<.05, supervision, F(2, 143) = 59.07, p<.05, physical working conditions, F (3, 143) = 49.573, p<.05 and interpersonal relationship with peers F (4, 143) = 39.905, p<.05.
Table 8

ANOVA Summary of Regression Model with Overall Satisfaction with Teaching Online and Hygiene Factors

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>29.316</td>
<td>1</td>
<td>29.316</td>
<td>76.282</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>54.573</td>
<td>142</td>
<td>.384</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Regression</td>
<td>38.240</td>
<td>2</td>
<td>19.120</td>
<td>59.057</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>45.649</td>
<td>141</td>
<td>.324</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Regression</td>
<td>43.211</td>
<td>3</td>
<td>14.404</td>
<td>49.573</td>
<td>.000c</td>
</tr>
<tr>
<td>Residual</td>
<td>40.678</td>
<td>140</td>
<td>.291</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Regression</td>
<td>44.841</td>
<td>4</td>
<td>11.210</td>
<td>39.905</td>
<td>.000d</td>
</tr>
<tr>
<td>Residual</td>
<td>39.048</td>
<td>139</td>
<td>.281</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. a. Predictors: (Constant), Zscore(Benefits_Services) b. Predictors: (Constant), Zscore(Benefits_Services), Zscore(Supervision) c. Predictors: (Constant), Zscore(Benefits_Services), Zscore(Supervision), Zscore(Physical_Working_Cond) d. Predictors: (Constant), Zscore(Benefits_Services), Zscore(Supervision), Zscore(Physical_Working_Cond), Zscore(Interpersonal_peer) e. Dependent Variable: Overall_How_Satis

The coefficients table displayed each variable separately along with their corresponding p-value, see Table 9. As shown in Table 9, each of the four variables was found to have a p-value of <.05 meaning that they were identified to be statistically significant in predicting satisfaction of online instruction.
Table 9

Coefficients for Regression Analysis for Overall Satisfaction with Teaching Online and Hygiene Factors

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.028</td>
<td>.052</td>
<td>58.609</td>
</tr>
<tr>
<td></td>
<td>Zscore (Benefits_Services)</td>
<td>.453</td>
<td>.052</td>
<td>.591</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>3.028</td>
<td>.047</td>
<td>63.855</td>
</tr>
<tr>
<td></td>
<td>Zscore (Benefits_Services)</td>
<td>.303</td>
<td>.055</td>
<td>.396</td>
</tr>
<tr>
<td></td>
<td>Zscore (Supervision)</td>
<td>.291</td>
<td>.055</td>
<td>.380</td>
</tr>
<tr>
<td></td>
<td>(Physical_Working_Cond)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>3.028</td>
<td>.045</td>
<td>67.405</td>
</tr>
<tr>
<td></td>
<td>Zscore (Benefits_Services)</td>
<td>.250</td>
<td>.054</td>
<td>.326</td>
</tr>
<tr>
<td></td>
<td>Zscore (Supervision)</td>
<td>.234</td>
<td>.054</td>
<td>.305</td>
</tr>
<tr>
<td></td>
<td>Zscore</td>
<td>.210</td>
<td>.051</td>
<td>.274</td>
</tr>
<tr>
<td></td>
<td>(Physical_Working_Cond)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>(Constant)</td>
<td>3.028</td>
<td>.044</td>
<td>68.551</td>
</tr>
<tr>
<td></td>
<td>Zscore (Benefits_Services)</td>
<td>.246</td>
<td>.053</td>
<td>.321</td>
</tr>
<tr>
<td></td>
<td>Zscore (Supervision)</td>
<td>.174</td>
<td>.059</td>
<td>.228</td>
</tr>
<tr>
<td></td>
<td>Zscore</td>
<td>.183</td>
<td>.051</td>
<td>.239</td>
</tr>
<tr>
<td></td>
<td>(Physical_Working_Cond)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zscore (Interpersonal_peer)</td>
<td>.131</td>
<td>.055</td>
<td>.172</td>
</tr>
</tbody>
</table>

Note. a. Dependent Variable: Overall_How_Satis

The statistical tests conducted for research question one were conclusive in finding that there were four hygiene factors that would predict overall job satisfaction with conducting online instruction by rural community college instructors. By establishing the level of significance as .05 early in the data analysis, the researcher was able to assume that these four factors did not
occur by chance. These findings imply that benefits and services, supervision, physical working conditions and interpersonal relationship with peers and satisfaction with online instruction are statistically related.

**Research Question Two**

*What motivator factors are most related to job satisfaction for community college instructors who teach online courses?*

Using the same variables and data analysis techniques as in research question one, a coefficients diagnostics was run on the motivator factors to examine whether there were any that would make a significant contribution to the prediction of the dependent variable, overall satisfaction of online instruction. Based upon the p<.05 value, there were two motivator factors that were significant in their relationship to job satisfaction of online instruction: personal achievement and opportunities for advancement and growth. See Table 10 for the factors and their corresponding significant value.

Shown in Table 10 are the variables that were entered into the stepwise regression model based upon their statistical contribution to the model. The five motivating factors were individually tested for significance prior to entering the model. There were two motivator factors that met the criteria: personal achievement and opportunities for advancement and growth.
Table 10

*Model Summary for Motivator Factors Entered/Removed*

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zscore (Pers_Achievement)</td>
<td>.</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .050, Probability-of-F-to-remove &gt;= .100).</td>
</tr>
<tr>
<td>2</td>
<td>Zscore (Opp_Advan_Growth)</td>
<td>.</td>
<td>Stepwise (Criteria: Probability-of-F-to-enter &lt;= .050, Probability-of-F-to-remove &gt;= .100).</td>
</tr>
</tbody>
</table>

Note. a. Dependent Variable: Overall_How_Satis

Table 11 shows the model summary where the adjusted $R^2$ was evaluated after each variable was entered. The value of the adjusted $R^2$ for Model 1 after the addition of personal achievement was .479. Model 2 shows the addition of opportunities for advancement and growth with an adjusted $R^2$ of .563. The increase in the adjusted r-square value for each model indicated that the model improved with the entry of each new variable more than would be expected by chance. The coefficient of determination, $R^2$, is .569, meaning that approximately 57% of the variance in overall job satisfaction with conducting online instruction was attributed to the two motivator factors found in Model 2.
Table 11

*Model Summary for Stepwise Regression Analysis for Overall Satisfaction and Motivator Factors*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>Adjusted R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.694&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.482</td>
<td>.479</td>
<td>.553</td>
<td>.482</td>
<td>132.239</td>
<td>1</td>
<td>142</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.754&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.569</td>
<td>.563</td>
<td>.507</td>
<td>.087</td>
<td>28.288</td>
<td>1</td>
<td>141</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Notes. a. Predictors: (Constant), Zscore (Pers_Achievement) b. Predictors: (Constant), Zscore (Pers_Achievement), Zscore (Opp_Advan_Growth) c. Dependent Variable: Overall_How_Satis

Table 12, ANOVA Summary of Regression Model, illustrates that both models were significant with a value of .000. Once the models were tested for significance, then each variable was evaluated to consider whether they would be instrumental in predicting satisfaction. The inclusion of the two motivator variables yielded the following results: personal achievement, F (1, 143) = 132.239, p<.05, and personal advancement and growth, F (2, 143) = 92.969, p<.05.
Table 12

ANOVA Summary of Regression Model with Overall Satisfaction with Teaching Online and Motivator Factors

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>40.452</td>
<td>1</td>
<td>40.452</td>
<td>132.239</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>43.437</td>
<td>142</td>
<td>.306</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>47.710</td>
<td>2</td>
<td>23.855</td>
<td>92.969</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>36.179</td>
<td>141</td>
<td>.257</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. a. Predictors: (Constant), Zscore (Pers_Achievement) b. Predictors: (Constant), Zscore (Pers_Achievement), Zscore (Opp_Advan_Growth) c. Dependent Variable: Overall_How_Satis

The coefficients table displayed each variable separately along with their corresponding p-value. As shown in Table 13, each of the variables was found to have a p-value of <.05, thereby the variables were observed to be statistically significant in predicting satisfaction of online instruction for rural community college instructors.
Table 13

**Coefficients for Regression Analysis for Overall Satisfaction with Teaching Online and Motivator Factors**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>3.028</td>
</tr>
<tr>
<td></td>
<td>Zscore (Pers_Achievement)</td>
<td>.532</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>3.028</td>
</tr>
<tr>
<td></td>
<td>Zscore (Pers_Achievement)</td>
<td>.400</td>
</tr>
<tr>
<td></td>
<td>Zscore (Opp_Advan_Growth)</td>
<td>.261</td>
</tr>
</tbody>
</table>

Note. a. Dependent Variable: Overall_How_Satis

The statistical tests conducted for the second research question were conclusive in finding that there were two motivator factors that would predict overall job satisfaction with conducting online instruction by rural community college instructors. By establishing the level of significance as .05, the researcher was to assume that these factors did not occur by chance and are recognized to have a positive relationship with a rural community college’s overall satisfaction of online instruction.

**Research Question Three**

*Is there a relationship between faculty demographic characteristics and overall job satisfaction?*

The analysis of the demographic data for the third research question was performed by running, Levene’s Test of Homogeneity of Variance, ANOVA, and the Robust Tests of Equality
of Means using the Welch & Brown-Forsythe tests. The primary rationale for utilizing the three between groups tests, ANOVA, Welch, and Brown-Forsythe, was to confirm the accuracy of the data through multiple test analysis. There were seven demographic data variables that were included in the analysis of question three: gender, age, tenured vs. non-tenured, level of education, number of semesters having taught online classes, number of online courses taught in one semester, and total number of years of college teaching experience.

Results from the first set of demographic data, gender, were analyzed using SPSS where a one-way ANOVA was run using the survey question: “Overall, how satisfied are you with teaching online at your institution?” as the dependent variable. Responses for the question were very satisfied, satisfied, somewhat satisfied, and not satisfied and were assigned values of 4, 3, 2, and 1 respectively into SPSS. As seen in Table 14, there were a total of 144 respondents for this question with 100 (69%) being female and 44 (31%) being male. The descriptive data for the gender variables shows that males had a lower mean level of overall satisfaction with a value of 2.95, and the female group had a higher mean level of overall satisfaction with a value of 3.06.
Table 14

Model Descriptive Data with Overall Satisfaction with Teaching Online and Gender

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>44</td>
<td>2.95</td>
<td>.806</td>
<td>.121</td>
<td>2.71</td>
<td>3.20</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
<td>3.06</td>
<td>.750</td>
<td>.075</td>
<td>2.91</td>
<td>3.21</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Effects</td>
<td>.767</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random Effects</td>
<td>.064</td>
<td>2.22</td>
<td>3.84</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In order to examine whether the variable met the second assumption that the two groups have approximately the same variance on the dependent variable, the Levene’s Test of Homogeneity of Variance is performed. Table 15 displays the values for this test, but the primary focus is on the significant value of .698. Because this value is greater than the established p-value <.05, the two variances for male and female are considered to be approximately equal.

Table 15

Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Gender

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.151</td>
<td>1</td>
<td>142</td>
<td>.698</td>
</tr>
</tbody>
</table>

The ANOVA table for the gender variable and overall satisfaction with online teaching is shown in table 16. The results show that the there is not a significant difference in the overall satisfaction between males and females based upon the F value of .578 and a significant value of .449 as compared to the p-value <.05.
Table 16

ANOVA Summary of Overall Satisfaction with Teaching Online and Gender

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.340</td>
<td>1</td>
<td>.340</td>
<td>.578</td>
<td>.449</td>
</tr>
<tr>
<td>Within Groups</td>
<td>83.549</td>
<td>142</td>
<td>.588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results from the Robust Tests of Equality of Means are shown in Table 17. Both the Welch and Brown-Forsythe tests were used to evaluate the equality of means of variance. Each test showed a significant value of .462, which indicated there are no significant differences in the means of the two gender variables that were analyzed in research question three.

Table 17

Robust Tests of Equality of Means of Overall Satisfaction with Teaching Online and Gender

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>.546</td>
<td>1</td>
<td>77.144</td>
<td>.462</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>.546</td>
<td>1</td>
<td>77.144</td>
<td>.462</td>
</tr>
</tbody>
</table>

Note. a. Asymptotically F distributed.

The second variable that was tested for research question three was age. This variable was categorized into five groups: 20-30, 31-40, 41-50, 51-60 and above 60. There were 144 respondents identified in this group with the 41-50 year old group making up the largest number of subjects, 49 (34%), the 51-60 year old age group were the second largest, 48 (33%) and those above 60 were the smallest with 11 (8%). The descriptive data shows that the groups of instructors in the 20-30 age brackets have a higher mean level of overall satisfaction with a value of 3.29 and the instructors in the 51-60 age brackets have the lowest mean level of overall satisfaction with a value of 2.90 (see Table 18).
Model Descriptive Data with Overall Satisfaction with Teaching Online and Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>7</td>
<td>3.29</td>
<td>.488</td>
<td>.184</td>
<td>2.83</td>
<td>3.74</td>
</tr>
<tr>
<td>31-40</td>
<td>29</td>
<td>3.03</td>
<td>.731</td>
<td>.136</td>
<td>2.76</td>
<td>3.31</td>
</tr>
<tr>
<td>41-50</td>
<td>49</td>
<td>3.06</td>
<td>.775</td>
<td>.111</td>
<td>2.84</td>
<td>3.28</td>
</tr>
<tr>
<td>51-60</td>
<td>48</td>
<td>2.90</td>
<td>.751</td>
<td>.108</td>
<td>2.68</td>
<td>3.11</td>
</tr>
<tr>
<td>Above 60</td>
<td>11</td>
<td>3.27</td>
<td>1.009</td>
<td>.304</td>
<td>2.59</td>
<td>3.95</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Model Fixed Effects

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.168</td>
<td>4</td>
<td>139</td>
<td>.328</td>
</tr>
</tbody>
</table>

The test of homogeneity of variances is shown in Table 19 where the Levene’s Statistic significant value is .328 indicating that the variances among the means are not significantly different in measuring overall satisfaction with online teaching.

Table 19
Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Age

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.168</td>
<td>4</td>
<td>139</td>
<td>.328</td>
</tr>
</tbody>
</table>

The ANOVA summary for age is shown in Table 20. The results reveal that there is not a significant difference in the overall satisfaction between the five groups based upon the F value of .856 and a significant value of .492 as compared to the p-value <.05.
Table 20

ANOVA Summary for Overall Satisfaction with Teaching Online and Age

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.017</td>
<td>4</td>
<td>.504</td>
<td>.856</td>
</tr>
<tr>
<td>Within Groups</td>
<td>81.871</td>
<td>139</td>
<td>.589</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The tests of equality of means of variance are shown in Table 21. Based upon the significant value of the Welch test, .435, and the Brown-Forsythe test, .499, there are no significant differences in the means of the five age variables that were analyzed in research question three.

Table 21

Robust Tests of Equality of Means for Overall Satisfaction with Teaching Online and Age

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>.976</td>
<td>4</td>
<td>30.177</td>
<td>.435</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>.853</td>
<td>4</td>
<td>50.975</td>
<td>.499</td>
</tr>
</tbody>
</table>

Tables 22 through 25 displays the findings from the analysis of the third variable that was included in research question three. The variable that was analyzed was the tenure status of the online instructors. As shown in Table 22, there were a total of 144 responses collected for this survey and of those, 124 or 86% were tenured while the remaining 20 or 14% were non-tenured. Results from the model for descriptive data show the mean value for the tenured group was 3.00 while the mean for the non-tenured group was 3.20. These values indicated that the non-tenured group was slightly more satisfied overall with teaching online than the tenured group.
Table 22

Model Descriptive Data with Overall Satisfaction with Teaching Online and Tenure Status

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tenured</td>
<td>124</td>
<td>3.00</td>
<td>.765</td>
<td>.069</td>
<td>2.86</td>
<td>3.14</td>
</tr>
<tr>
<td>Non-Tenured</td>
<td>20</td>
<td>3.20</td>
<td>.768</td>
<td>.172</td>
<td>2.84</td>
<td>3.56</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Effects</td>
<td></td>
<td></td>
<td>.765</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
<tr>
<td>Random Effects</td>
<td></td>
<td></td>
<td>.080</td>
<td>2.02</td>
<td>4.04</td>
<td></td>
</tr>
</tbody>
</table>

Levene’s statistic significant value of .346 is shown in Table 23. This value is representative of the differences in variances. At .346, the variances among the means are not significantly different in measuring overall satisfaction with online teaching.

Table 23

Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Tenure Status

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.894</td>
<td>1</td>
<td>142</td>
<td>.346</td>
</tr>
</tbody>
</table>

The ANOVA results as seen in Table 24 show the F and significant value of the differences between the two groups, tenured and non-tenured. As shown in the table, the results illustrate that there is not a significant difference in the overall satisfaction between the groups based upon the F value of 1.176 and a significant value of .280 as compared to the p-value <.05.
Table 24

ANOVA Summary for Overall Satisfaction with Online Teaching and Tenure Status

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.689</td>
<td>1</td>
<td>.689</td>
<td>1.176</td>
</tr>
<tr>
<td>Within Groups</td>
<td>83.200</td>
<td>142</td>
<td>.586</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 25 displays the tests of equality of means of variance for the tenure status variable. Both of the tests display a significant value of .290 indicating that there are no significant differences in the means of the two groups that were analyzed in research question three.

Table 25

Robust Tests of Equality of Means for Overall Satisfaction with Teaching Online and Tenure Status

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>1.170</td>
<td>1</td>
<td>25.473</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>1.170</td>
<td>1</td>
<td>25.473</td>
</tr>
</tbody>
</table>

The fourth variable to be evaluated in research question three was the highest level of education obtained by the respondent. There were four groups included in this variable: bachelor’s, master’s, doctorate, and other. Tables 26 through 29 show the ANOVA and residual tests ran for this variable. The results from the 144 respondents showed that 85 (59%) had a master’s degree and 37 (25%) had a doctorate. The descriptive data is displayed in Table 26 where the group with the highest level of overall satisfaction with teaching online is those with a bachelor’s degree with a mean score of 3.22. The instructors who fell into the group labeled as “other” were the least satisfied overall with a mean score of 2.62.
Table 26

*Model Descriptive Data with Overall Satisfaction with Teaching Online and Highest Degree*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's</td>
<td>9</td>
<td>3.22</td>
<td>.833</td>
<td>.278</td>
<td>2.58</td>
<td>3.86</td>
</tr>
<tr>
<td>Master's</td>
<td>85</td>
<td>3.07</td>
<td>.720</td>
<td>.078</td>
<td>2.92</td>
<td>3.23</td>
</tr>
<tr>
<td>Doctorate</td>
<td>37</td>
<td>3.03</td>
<td>.726</td>
<td>.119</td>
<td>2.78</td>
<td>3.27</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>2.62</td>
<td>1.044</td>
<td>.290</td>
<td>1.98</td>
<td>3.25</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
<tr>
<td>Model Fixed Effects</td>
<td></td>
<td></td>
<td>.761</td>
<td>.063</td>
<td>2.90</td>
<td>3.15</td>
</tr>
<tr>
<td>Random Effects</td>
<td></td>
<td></td>
<td>.095</td>
<td></td>
<td>2.73</td>
<td>3.33</td>
</tr>
</tbody>
</table>

The variances of the groups are tested using the Homogeneity of Variances are seen in Table 27. Using the significant value as a guide, the variances of the four groups tested appeared to not be significantly different with a value of .076.

Table 27

*Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Highest Degree*

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.343</td>
<td>3</td>
<td>140</td>
<td>.076</td>
</tr>
</tbody>
</table>

Table 28 displays the ANOVA Summary. The values to be analyzed here are the F and significant, which are 1.556 and .203 respectively. The researcher concluded from these values that there is not a significant difference between the group means.
Table 28

ANOVA Summary of Descriptive Data for Satisfaction with Teaching Online and Highest Degree

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.707</td>
<td>3</td>
<td>.902</td>
<td>1.556</td>
<td>.203</td>
</tr>
<tr>
<td>Within Groups</td>
<td>81.182</td>
<td>140</td>
<td>.580</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results from the tests of equality of means of variance are found in Table 29. The Welch test resulted in a significant value of .472 and the Brown-Forsythe test resulted in a significant value of .322. Both of which suggest that there are no significant differences in the means of the four variables.

Table 29

Robust Tests of Equality of Means for Satisfaction with Teaching Online and Highest Degree

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>.866</td>
<td>3</td>
<td>24.391</td>
<td>.472</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>1.205</td>
<td>3</td>
<td>36.133</td>
<td>.322</td>
</tr>
</tbody>
</table>

Table 30 represents the descriptive data gathered from the fifth variable used to answer research question three; number of semester having taught online classes. Five classifications were included in this analysis: 1-3, 3-6, 6-9, 9-15 and 15+ semesters. A total of 144 responses were collected for this variable and of those, 45 (31%) had taught 15+ semesters, 33 (29%) had taught 9-15 hours and 29 (20%) taught 3-6 hours. Those instructors having taught 15+ semesters indicated having the highest level of overall satisfaction with a mean score of 3.22, while instructors having only taught 1-3 semesters showed the least level of overall satisfaction with a mean score of 2.75.
### Table 30

*Model Descriptive Data with Overall Satisfaction with Teaching Online and Semesters of Online Teaching*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>20</td>
<td>2.75</td>
<td>.967</td>
<td>.216</td>
<td>2.30</td>
<td>3.20</td>
</tr>
<tr>
<td>3-6</td>
<td>29</td>
<td>2.90</td>
<td>.724</td>
<td>.135</td>
<td>2.62</td>
<td>3.17</td>
</tr>
<tr>
<td>6-9</td>
<td>17</td>
<td>3.00</td>
<td>.612</td>
<td>.149</td>
<td>2.69</td>
<td>3.31</td>
</tr>
<tr>
<td>9-15</td>
<td>33</td>
<td>3.06</td>
<td>.659</td>
<td>.115</td>
<td>2.83</td>
<td>3.29</td>
</tr>
<tr>
<td>15+</td>
<td>45</td>
<td>3.22</td>
<td>.795</td>
<td>.118</td>
<td>2.98</td>
<td>3.46</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
<td>3.15</td>
</tr>
</tbody>
</table>

**Model Fixed Effects**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bound</td>
<td>Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed</td>
<td>.759</td>
<td>.063</td>
<td>2.90</td>
<td>3.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Random Effects**

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bound</td>
<td>Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Random</td>
<td>.084</td>
<td>.280</td>
<td>2.80</td>
<td>3.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Homogeneity of Variances for the five groups was tested and the results are seen in Table 31. Using the significant value as a guide, the variances of the five groups proved to be significantly different with a value of .020, therefore, equal variances are not assumed which prompted the researcher to refer to the Robust Test of Equality of Means for determination of significant difference between the groups.

### Table 31

*Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Semesters of Online Teaching*

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.033</td>
<td>4</td>
<td>139</td>
<td>.020</td>
</tr>
</tbody>
</table>
Results from the ANOVA Summary are presented in Table 32. The F values shows 1.645 while the significant value is .166. The researcher concluded from these values that there is not a significant difference between the group means.

Table 32
*ANOVA Summary of Descriptive Data for Overall Satisfaction with Teaching Online and Semesters of Online Teaching*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3.793</td>
<td>4</td>
<td>.948</td>
<td>1.645</td>
<td>.166</td>
</tr>
<tr>
<td>Within Groups</td>
<td>80.096</td>
<td>139</td>
<td>.576</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 33 displays the results from the Welch and Brown-Forsythe tests equality of means of variance. Levene’s test of homogeneity of variance proved that there were significant differences in the variances, therefore the Robusts Tests of Equality of Means was consulted to determine the significant difference in means. The results for the mean values of the number of months teaching experience for each test was .279 and .172 indicating that are no significant differences in the means of the five variables, which also corresponds with the results from the ANOVA findings.

Table 33
*Robust Tests of Equality of Means for Overall Satisfaction with Teaching Online and Semesters of Online Teaching*

<table>
<thead>
<tr>
<th></th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>1.305</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>1.633</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>4</td>
<td>57.647</td>
<td>.279</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>4</td>
<td>98.180</td>
<td>.172</td>
</tr>
</tbody>
</table>
The descriptive data for the sixth variable for research question three, the number of classes taught online in one semester (one, two, three, or more) is presented next. Table 34 presents the data from those instructors who had taught a minimum of one class per semester. Of the 144 survey responses for this variable, 65 or 45% had taught one online class per semester, 44 or 31% had taught two online classes and the remaining 35 or 24% had taught three or more online classes per semester. Instructors having taught three or more classes per semester had the highest level of overall satisfaction with a mean score of 3.09 and those having taught only one course per semester showed the least level of overall satisfaction with a mean score of 2.97.

Table 34

*Model Descriptive Data with Overall Satisfaction with Teaching Online and Online Courses per Semester*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>1</td>
<td>65</td>
<td>2.97</td>
<td>.749</td>
<td>.093</td>
<td>2.78</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>3.07</td>
<td>.759</td>
<td>.114</td>
<td>2.84</td>
</tr>
<tr>
<td>3 or more</td>
<td>35</td>
<td>3.09</td>
<td>.818</td>
<td>.138</td>
<td>2.80</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Effects</td>
<td></td>
<td></td>
<td>.769</td>
<td>.064</td>
<td>2.90</td>
</tr>
<tr>
<td>Random Effects</td>
<td></td>
<td></td>
<td>.064*a</td>
<td></td>
<td>2.75*a</td>
</tr>
</tbody>
</table>

Table 35 shows the results of the three groups tested using the Homogeneity of Variances. According to the table, the significant value was .569 indicated that the variances of the three groups proved to not be significantly different.
Table 35

*Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Online Courses per Semester*

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.565</td>
<td>2</td>
<td>141</td>
<td>.569</td>
</tr>
</tbody>
</table>

Table 36 contains the ANOVA Summary. Values from the table are .348 and .707 for F and significant respectively. Based upon these values, there is not a significant difference between the three group means.

Table 36

*ANOVA Summary of Descriptive Data for Overall Satisfaction with Teaching Online and Online Courses per Semester*

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.412</td>
<td>2</td>
<td>.206</td>
<td>.348</td>
</tr>
<tr>
<td>Within Groups</td>
<td>83.477</td>
<td>141</td>
<td>.592</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data from the Robusts Tests Equality of Means is seen in Table 37. Both of the tests that were ran for this analysis, Welch and Brown-Forsythe, signify that are no significant differences in the means based upon the significant values of .709 and .713 respectively.

Table 37

*Robust Tests of Equality of Means for Overall Satisfaction with Teaching Online and Online Courses per Semester*

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>.345</td>
<td>2</td>
<td>79.615</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>.339</td>
<td>2</td>
<td>115.731</td>
</tr>
</tbody>
</table>
The last variable to be included in the analysis of research question three is the instructors’ total number of years of teaching experience. There were five values included in this question: 1-3, 3-7, 7-10, 10-15 and 15+ years. There were 144 responses collected for this variable and 55 (38%) had 15+ years of teaching experience, 35 (24%) had 10-15 years and 28 (19%) had 3-7 years of teaching experience. The results from Table 38 show that those instructors who had taught 7-10 years were the most satisfied with a mean score of 3.39 and those having taught 3-7 years were the least satisfied with a mean score of 2.96.

Table 38
*Model Descriptive Data with Overall Satisfaction with Teaching Online and Years of Teaching Experience*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>1-3 years</td>
<td>8</td>
<td>3.00</td>
<td>.926</td>
<td>.327</td>
<td>2.23</td>
</tr>
<tr>
<td>3-7 years</td>
<td>28</td>
<td>2.96</td>
<td>.576</td>
<td>.109</td>
<td>2.74</td>
</tr>
<tr>
<td>7-10 years</td>
<td>18</td>
<td>3.39</td>
<td>.502</td>
<td>.118</td>
<td>3.14</td>
</tr>
<tr>
<td>10-15 years</td>
<td>35</td>
<td>2.97</td>
<td>.891</td>
<td>.151</td>
<td>2.67</td>
</tr>
<tr>
<td>15+ years</td>
<td>55</td>
<td>2.98</td>
<td>.805</td>
<td>.109</td>
<td>2.76</td>
</tr>
<tr>
<td>Total</td>
<td>144</td>
<td>3.03</td>
<td>.766</td>
<td>.064</td>
<td>2.90</td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Effects</td>
<td></td>
<td></td>
<td>.764</td>
<td>.064</td>
<td>2.90</td>
</tr>
<tr>
<td>Random Effects</td>
<td></td>
<td></td>
<td>.070</td>
<td>2.83</td>
<td>3.22</td>
</tr>
</tbody>
</table>

Shown in Table 39 are the outcomes from the Test of Homogeneity of Variances. The significant value for the test of the five groups was 0.087 indicating the mean variances of the five variables are not significantly different.
Table 39  
*Test of Homogeneity of Variances with Overall Satisfaction with Teaching Online and Years of Teaching Experience*

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.080</td>
<td>4</td>
<td>139</td>
<td>.087</td>
</tr>
</tbody>
</table>

The ANOVA Summary for the means of the total number of years of college teaching experience is found in Table 40. Evaluation of the F value, 1.153, and significant value, .334, concluded that there is not a significant difference between the group means.

Table 40  
*ANOVA Summary for Overall Satisfaction with Teaching Online and Years of Teaching Experience*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.694</td>
<td>4</td>
<td>.673</td>
<td>1.153</td>
<td>.334</td>
</tr>
<tr>
<td>Within Groups</td>
<td>81.195</td>
<td>139</td>
<td>.584</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>83.889</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 41 presents the results from the tests of equality of means of variance. The Welch test resulted in a significant value of .086 and the Brown-Forsythe test resulted in a significant value of .335. Both of which suggest that there are no significant differences in the means of the five variables.

Table 41  
*Robust Tests of Equality of Means for Overall Satisfaction with Teaching Online and Years of Teaching Experience*

<table>
<thead>
<tr>
<th>Statistica</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch</td>
<td>2.216</td>
<td>4</td>
<td>36.848</td>
</tr>
<tr>
<td>Brown-Forsythe</td>
<td>1.172</td>
<td>4</td>
<td>46.860</td>
</tr>
</tbody>
</table>
Findings Summary

This chapter detailed the results of the collected data used to answer research questions one, two and three in the study. Research question one was designed to predict what hygiene factors were most related to job satisfaction for community college instructors who teach online courses. Regression analysis via the stepwise method was used to evaluate the results from research question one and Tables 6 through 9 display the results collected from this statistical test.

Regression analysis via the stepwise method was also used to evaluate the results from research question two. Research question two addressed the motivator factors that were most related to job satisfaction for community college instructors who teach online courses. Tables 10 through 13 highlight the results collected from the regression analysis of research question two.

Research question three included seven demographic characteristics to be evaluated: gender, age, tenured vs. non-tenured, highest level of education, number of semesters having taught online courses, number of online courses taught in one semester and total number of years of college teaching experience. Tables 14 through 41 portray the results from the statistical tests that were run for research question three. The basic premise of research question three was to consider whether there is a difference in job satisfaction based on faculty demographic characteristics. In order to evaluate the findings from the demographic groups, a series of tests were run for each item: descriptive statistics, test of homogeneity of variances, ANOVA and robust tests of equality of means using the Welch and Brown-Forsythe models. Chapter five will present findings and recommendations for policy, practice and future research based upon chapter four’s data analysis.
CHAPTER V:
FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Online education in higher education has grown substantially over the past decade and institutions like rural community colleges recognize both the need and demand for this type of non-traditional instruction. With the growth of online classes comes an increase in the number of instructors who begin navigating into the field of online instruction.

Literature in the area of online instruction revealed that online instruction required much more work than simply adding a set of notes or series of PowerPoint slides to an online course (Frey & Donehue, 2003). Online instructors are faced with a multitude of tasks to complete in order to successfully teach their courses, and often such instructors are forced to reconceptualize a traditional course in order to make it suitable for online instruction (Savery, 2005). It is indeed, pedagogically, a brave new world for these instructors, particularly at student-centered but often financially-challenged institutions such as rural community colleges, and assessing their perception of the transition from the traditional to the online environment becomes critical in fully realizing the dynamics of online instruction. As a result, there was a need to discover what factors are related to satisfaction of online instructors at these community colleges. This discovery of information contributes to the sparse amount of scholarly research on the subject as well as provides insight to those in administration at institutions of higher education. Therefore, the purpose of this quantitative research study was to establish what factors are related to satisfaction of online instructors at rural community colleges.
The survey was distributed in the spring of 2011 and was comprised of 31 questions that consisted of four sections. They included the following:

1. demographics;
2. hygiene factors (nine total);
3. motivator factors (five total); and
4. online instructional variables at each institution.

Further delineation of the hygiene section divided the nine factors into two categories based upon their role in the institution’s online program. Factors such as supervision, interpersonal relationship with supervisors, interpersonal relationship with subordinates, interpersonal relationship with peers and physical working conditions were classified under an area labeled “level of support”. The remaining four factors—level of compensation, institutional policies and administrative practices, benefits and services and job security—were placed in the “fiscal issues” category.

Participants of this study included instructors at 11 rural community colleges in the Alabama Community College System. Electronic versions of the surveys were distributed to instructors via their institutions electronic mail system along with a brief description of the study and invitation to participate in the study.

Findings

Research Question One

What hygiene factors are most related to job satisfaction for community college instructors who teach online courses?

Based upon the data from Chapter IV, of the nine hygiene factors related to satisfaction, only four were found to be instrumental in predicting satisfaction of online instructors. They are
1. benefits and services;
2. supervision;
3. physical working conditions; and
4. interpersonal relationship with peers.

The stepwise regression analysis examined each of the nine factors in order to determine if they were related to satisfaction of online instructors at rural community colleges.

The results from the model summary for stepwise regression showed four models with various hygiene factors included in each model. The rise in adjusted $R^2$ values for each model indicated that as each factor was added to the model, the level of satisfaction of the instructor increased. For instance, as benefits and services were added to the model summary, the resulting adjusted $R^2$ value was 34%, which means that this factor alone accounted for 34% of the variance in overall satisfaction. The next three factors accounted for the remaining variances: supervision (10%), physical working conditions (6%) and interpersonal relationship with peers (2%). Ultimately, the combination of the four hygiene factors accounted for 52% of the variance in overall satisfaction of the online instructors.

Research Question Two

What motivator factors are most related to the job satisfaction for community college instructors who teach online courses?

Chapter IV’s findings of what motivator factors are related to the greatest amount of satisfaction of online instructors at rural community colleges began by looking at a group of five motivators. After performing a stepwise regression analysis on the original five motivator factors, only two were found to be instrumental in predicting satisfaction of online instructors at rural community colleges: personal achievement and opportunities for advancement and growth.
The stepwise regression analysis evaluated each of the five factors to determine if they were related to satisfaction of online instructors. According to the adjusted $R^2$ value, these two motivator factors accounted for 57% of the variance in overall satisfaction of rural community instructors who taught online classes. Using the data from the model summary, a breakdown of the factors is as follows: personal achievement (48%) and opportunities for advancement and growth (9%). Based upon the findings from the tables used to answer research question two, the researcher was able to establish that motivator factors personal achievement and opportunities for advancement and growth are significant in predicting overall satisfaction of online instructors.

**Research Question Three**

*Is there a relationship between faculty demographic characteristics and overall job satisfaction?*

When assessing their overall level of satisfaction with teaching online at their respective institutions, the findings were revealed to be as follows:

1. Females collectively scored a mean of 3.06, which is just above the “Satisfied” threshold; conversely, the collective male mean was 2.95, just below the “Satisfied” benchmark. There was no significant statistical difference between the means of females and males ($F=.578; p=.449$);

2. In terms of age, online faculty in the 20-30 year old range scored the highest in terms of overall satisfaction with a mean of 3.29; the second highest level of satisfaction were those above 60 with a mean of 3.27, however, there was no significant statistical difference between the five age groups ($F=.856; p=.492$);
3. Non-tenured faculty indicated a higher level of satisfaction with a mean score of 3.20, whereas tenured faculty results revealed a 3.00 for their mean. There is no significant statistical difference between the means (F=1.176; p=.280);

4. Based upon the highest degree held, there is no difference between the means of the four groups (F=1.556; p=.203). However, faculty members holding a bachelor’s degree had a mean score of 3.22, and faculty with a master’s degree had a mean score of 3.07;

5. Instructors who had taught 15+ semesters of online courses indicated being more satisfied with a mean score of 3.22 as compared to those who had taught 9-15 semesters and had a score of 3.06. Nonetheless, there was no statistically significant difference in the means (F=.1.645; p=.166) of all groups based on number of online courses taught;

6. Instructors who taught three or more online courses in one semester were more satisfied overall (mean of 3.09) compared to those who only taught one course per semester (mean of 2.97). No significant statistical difference was found between the means of all groups (F=.348; p=.707); and

7. Instructors who had a total of seven to ten years of teaching experience had a higher rating of satisfaction with a mean score of 3.39 while those with three to seven years yielded a score of 2.96. Still, there was no statistical significant difference in the means of the five groups (F=1.153; p=.334) based upon teaching experience.

The aforementioned findings were collected from the analysis of variance, Test of Homogeneity of Variances, and the Robust Test of Equality of Means tests where the probability
value of each demographic was evaluated to determine if there was statistical significance between the means. Based upon the information gathered from the ANOVA and Welch and Brown-Forsythe tests, there was no significant difference between the group means. This information was used to establish if there is a relationship between the variables and overall satisfaction of online instructors.

Conclusions

This study was conducted in order to establish what factors are related to the job satisfaction of online instructors at rural community colleges. Applying Herzberg’s two-factor theory, this study used hygiene and motivator factors as a basis for predicting satisfaction. The following conclusions have been made based upon the findings from this study.

Conclusion One

The model summary findings for research question one revealed that there were four hygiene factors that were most related to job satisfaction for community college instructors who teach online courses: benefits and services, supervision, interpersonal relationship with peers, and physical working conditions. Further examination of the factors reveal that of the four hygiene factors found to be related to job satisfaction of online instructors, benefits and services was selected as the one that accounts for the most variance in job satisfaction.

Related studies about instructor satisfaction that were modeled after Herzberg’s two-factor theory uncovered findings that were associated with the hygiene factors. While many of the studies have revolved around four-year universities, Cohen (1974) argued that community colleges were the place to test the two-factor theory in order to learn “more about faculty members and the college as a work environment” (p. 372). A more recent study conducted at 23 community colleges in Florida indicated that faculty was satisfied with supervision and
relationships within their workplace (Lane, 2010). Hagedorn’s (1996) supported this finding where it was discovered that satisfaction was linked to “perceived support and interactions with supervisors or facilitators” (p. 571). In addition to other studies supporting the value of supervision and satisfaction, a study at a Christian university found where faculty stated that workplace relationships increased their job satisfaction (Schroder, 2008).

Findings of this nature are important in providing a deeper look at the under explored areas of online instruction and the faculty associated with this field. These findings are important in regards to gauging what faculty seek in their online instruction position and providing administrators with useful information that in many cases would not have been discovered.

**Conclusion Two**

According to the information found from the descriptive statistical data, there were two motivator factors that were found to be the most influential in predicting satisfaction of online instructors at rural community colleges: personal achievement and opportunities for advancement and growth. Of the two motivating factors listed as predicting satisfaction of online instructors, personal achievement was selected as the one that accounts for the most variance in job satisfaction.

Herzberg (1959) discovered in his research that motivator factors were incentives for employees and, thereby, would play a considerably role in generating more job satisfaction and work efficiency. Significantly, motivators or satisfiers are found to be intrinsic in nature and are linked to better job performance (Schroder & Peterson, 2008; Smerek, 2006). Lane’s (2010) study of community colleges also uncovered similar motivator factors that predicted faculty job satisfaction where participants revealed that love for their job increased when a “sense of achievement” was present (p. 24).
Studies of online faculty conducted by the Sloan Consortium and the American Distance Education Consortium found conflicting results in terms of advancement and growth. As noted in Bolliger and Wasilik’s (2007) study of online faculty, faculty who are considering movement into the online environment have major concerns about the area of “equitable reward system for promotion and tenure” (p. 107). Taking into account the findings from Lane’s study and the current study, information relating to motivator factors and job satisfaction provide important information to college administrators in regards to online instruction and the satisfaction of their faculty.

Conclusion Three

After evaluating the relationship between demographic factors and job satisfaction, the researcher determined that the variables were devoid of any statistically significant differences in their means. Therefore, the researcher concluded to fail to reject the null hypothesis that there is no relationship between the demographic variables used in this study and overall job satisfaction of instruction.

This finding was contrary to Schroder’s study (2008) that established job satisfaction was substantially influenced by demographic factors such as age and educational level. These findings were, however, consistent with that of Herzberg’s (1966) theory that demographics had no influence on job satisfaction and Castillo and Cano’s (2004) study of faculty and job satisfaction where it was found that “demographic characteristics of faculty members were negligibly related to overall job satisfaction” (p. 72). In order to determine if there are areas that relate to job satisfaction and online instructors, administrators will be able to use the information from this and previous studies to redirect their focus on factors other than demographics or study demographics that fall outside of the traditional scope of age, gender, and race.
Recommendations for Policy and Practice

Drawing from the information gathered from the current study’s findings and conclusions, the following recommendations for policy and practice have been developed.

1. When developing and maintaining their distance education program, administrators at rural community colleges should closely evaluate hygiene factors that are categorized as fiscal issues and institutional level of support.

Rural community college faculties that were surveyed about their satisfaction toward online instruction indicated that benefits and services were the most related to their overall satisfaction. Further exploration by administrators on the topic of benefits and services would be to identify which benefits and services appeal to faculty members. According to Herzberg (1976), hygiene factors, when absent, lead to dissatisfaction of employees, but when present, do not necessarily increase their satisfaction. By identifying and addressing the particular hygiene factors that are related to job satisfaction, administrators are providing a more conducive work environment for their faculty. Benefits and services provided to online faculty can include, but are not limited to the following factors: stipends or course release time for first-time course development, flexible work hours, outside of regular instructional hours, for online instruction, adequate training of online instructors, technical support for online instructors and students, and clearly established intellectual property policies that allow instructors to keep the property they have created for the course. When present, this group of hygiene factors encourages instructors to create better online courses and become more receptive to future online courses.

Another area of consideration that administrators should explore is the hygiene factors that relate to support for online instruction: supervision, physical working conditions and interpersonal relationship with peers. Increased satisfaction with supervision, as it relates to
support, was found to increase the overall satisfaction of online instructors. In addition to being linked to faculty satisfaction (Hagedorn, 1996), supervision provided to faculty members creates a presence in the online environment that help faculty know they are not alone and that they have the support of their administration. This finding suggests that administrators should evaluate their role in the distance education program and find ways to lend their support to their online instructors without crossing the boundaries of being micromanagers. One way administrators can lend their support to online faculty would be to encourage creativity and experimentation in their online course. Supporting faculty in the design and delivery of an online course provides them with more opportunities to focus on one of the most essential elements of online instruction: the content of their course.

Providing a more favorable working environment for online instructors is also another area that administrators should consider. Online faculty members have stated that physical working conditions were related to their satisfaction. Those physical working conditions may include office equipment such as furniture, lighting, computer hardware and software as well as any peripherals needed to successfully instruct an online course. By providing a model work environment for online faculty, administrators are not only showing support for the program, but providing the most basic tools for completing their job.

Interpersonal relationship with peers was the last factor listed as being related to job satisfaction for online faculty. Those relationships, whether they are developed by the water cooler or during a professional development meeting, hold great value for online faculty. Studies such as that performed by Hagedorn (1996) agreed with this finding by publishing this statement about relationships for college faculty, “the competence of colleagues has personal implications” (p. 571). Faculty and administrators need to find ways to foster these relationships so as to
provide faculty with a support staff, whether it be in the form of a colleague or administrator. One example of fostering the peer relationship would be to encourage sharing of information in regards to online instruction, hosting workshops to develop new skill sets and provide opportunities to include faculty members and their peers on policy and procedure making meetings.

2. Consideration by administrators should be given to motivational factors such as personal achievement and opportunities for advancement and growth when developing and maintaining a distance education program.

Satisfaction of online faculty is not only dependent upon hygiene factors but also upon motivator factors. This survey indicated that the most significant motivator factor related to satisfaction of online faculty was a strong sense of personal achievement. For faculty members, personal achievement is considered to be an intrinsic or internal reward and can be found in a variety of ways but, for many, achievement is discovered through the accomplishment of a task or job. Herzberg (1993) described achievement as “successful completion of a job” (p. 45). For online faculty, this could be the completed development of their first online course or positive feedback from a student in their online course. Affording faculty members with an opportunity to share their online experience with other colleagues would be one way to begin the dialogue among faculty members to discuss techniques and skills used in online instruction that resulted in a successfully completed course. Recognition by administrators and fellow colleagues for a faculty member’s sense of personal achievement plays a role in their attitude toward themselves and their job as well as their performance of future work.

Opportunities for advancement and growth were also found to be instrumental in predicting satisfaction for online faculty. Described as “an actual change in job status” (Castillo
opportunities for advancement and growth is an area that administrators should explore more closely for their online faculty members. While a change in status based on teaching online is not typical for a tenured online faculty at rural community colleges, administrators should consider the opportunity for growth for online faculty. Opportunities for growth can be found in internal professional development sessions, and faculty selected conferences and continuing education classes. By allowing them to take ownership of the programs they choose to participate in, online faculty are provided with an opportunity to further advance their knowledge of online instruction, produce better quality classes, and ultimately increase their satisfaction in the online environment.

3. Consideration of demographic areas and their relationship to the satisfaction of online faculty should not be a major factor for administrators when developing and evaluating an online program for their institution.

This study reported no relationship between demographic variables and overall satisfaction of community colleges instructors who teach online courses. Administrators in their respective online programs would be better served to analyze the hygiene and motivator factors related to job satisfaction of online faculty from their own department to see whether it is consistent with the conclusions in this study.

Recommendations for Future Research

Conducted as a pilot study, the current survey of online faculty opens an avenue of research for future studies of rural community colleges on a much larger scale. For example, conducting a study of online faculty at rural community colleges across the southeastern United States would provide a snapshot of regional tendencies in relation to online instruction.
Exploration of this nature also would be beneficial in testing the instrument’s content validity and reliability more extensively.

Additional research in all of Alabama’s rural community colleges would be beneficial in discovering what factors are related to and predictive of satisfaction of their online faculty as a group. This group of community colleges has a particularly vital role in their community in that they provide a specific service—an online education—to a group of students who may not otherwise be able to complete their education. Therefore, further exploration into what satisfies online faculty is essential in the continued development and growth of each of online programs.

Future research into the satisfaction of online faculty at rural community colleges in relation to a specific discipline is also an area that deserves further exploration. If, for example, a discipline such as nursing had a higher rate of satisfaction among its faculty than history or science, what were the factors that led to their increased level of satisfaction? Investigation into this area of online faculty satisfaction would certainly be beneficial to the administrators and faculty at institutions where online instruction is an integral component of program development.

Another area of online instruction that would benefit from further investigation is comparison of institutions with high levels of faculty satisfaction to those with low levels of satisfaction. Using the information gathered from the findings, administrators would be able to make decisions based upon facts and data, and then use this as an opportunity to look inside their online programs or departments and make changes accordingly.

Future exploration into the area of relationships between faculty race and overall satisfaction with online instruction and full-time and part-time status and overall satisfaction with online instruction would also be beneficial. While it was concluded that there was no relationship between demographics explored in this study and overall satisfaction, these two demographic
factors were omitted from this survey due to the focus of the study and certainly warrant further investigation.

While quantitative studies have provided insight into the factors that are related to satisfaction of online instructors, a qualitative study would explore a different dimension of these factors in relation to faculty satisfaction. For example, a qualitative study consisting of one-on-one interviews in order to examine faculty experiences with these factors would provide a more in-depth analysis into the role that factors play on satisfaction.

One last area to be explored would be the cause-effect relationship between the hygiene and motivator factors and satisfaction of online instructors. For example, conducting a causal comparative study would be a way to evaluate the factors on a more significant level to determine the extent in which they relate to satisfaction of online instructors.

Closing Remarks

The research conducted in this study was designed to establish what factors are most related to job satisfaction for online instructors at rural community colleges. The primary focus of this study was to isolate the hygiene and motivator factors, as well as specific demographic data, as they related to online instructors at 11 of Alabama’s rural community colleges. The information gathered from this study can be used to fill a void in the literature regarding online instruction in rural community colleges, as well as to provide administrators at these institutions with much needed data that can be useful for developing and maintaining online programs.

Various statistical tests were used for data analysis that included a stepwise regression model, descriptive statistics, test of homogeneity of variances, ANOVA and Robust Tests of Equality of Means using the Welch and Brown-Forsythe models. Data analysis revealed that overall, there is group of four hygiene factors and a group of two motivator factors that explain
similar amounts of difference in overall satisfaction of community college faculty who teach online courses. Although data collected from the demographic section highlighted certain groups as being more satisfied overall with online instruction, the final data analysis of each variable indicated that there were no significant differences in the means of the variables.

Results from this survey can be used by distance education administrators to ascertain where their faculties are in terms of job satisfaction in the online environment. As revealed from the review of the literature, online instruction is a complex, non-traditional method of instruction that for many faculties becomes more of a burden than reward. The ability to isolate those areas of online instruction that appear most related to satisfaction of online faculty will provide a better perspective of online faculty and be of great use to institutions in gauging the climate of their online departments.

In addition to distance education administrators benefitting from these survey results as well from future studies, online faculty members can also benefit from this information. Faculty members are vital components in the success of an institution’s online instructional program and having an awareness of what predicts their satisfaction as well as that of their colleagues can contribute to their success in the online environment.
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APPENDICES
Appendix A
Survey Instrument

SURVEY OF ONLINE FACULTY AT RURAL COMMUNITY COLLEGES

Please answer the following demographic questions.

1. Please indicate your gender.
   - Male  ○  Female  ○

2. Please indicate your age.
   - 20-30  ○  31-40  ○  41-50  ○  51-60  ○  Above 60

3. Please indicate if you are full-time or part-time faculty.
   - Full – time  ○  2 Part – time

4. Are you:
   - Tenured  ○  Non-tenured

5. Your highest level of education:
   - Bachelor’s  ○  Master’s  ○  Doctorate  ○  Other

6. Select how many semesters you have taught online classes.
   - 1-3 sem.  ○  3-6 sem.  ○  6-9 sem.  ○  10-15 sem.  ○  15+ sem.

7. Please indicate the number of online courses you normally teach in one semester.
   - 1  ○  2  ○  3 or more

8. Please indicate the total number of years of college teaching experience that you have
   (online and traditional).
   - 1-3 years  ○  3-7 years  ○  7-10 years  ○  10-15 years  ○  15+ years

9. Please indicate the discipline(s) in which you teach online courses.

10. Please list the specific courses that you teach or have taught online, (for example:
    Western Civilization I).

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11. Please rate the following training and support services that you receive as an online instructor (pedagogy, approach, assessment, theory):

   a. Timeliness of training to teach online
      - Very satisfied
      - Satisfied
      - Somewhat Satisfied
      - Not satisfied

   b. Quality of training to teach online
      - Very satisfied
      - Satisfied
      - Somewhat Satisfied
      - Not satisfied

   c. Accessibility of day to day online teaching support
      - Very satisfied
      - Satisfied
      - Somewhat Satisfied
      - Not satisfied

   d. Quality of day to day teaching support
      - Very satisfied
      - Satisfied
      - Somewhat Satisfied
      - Not satisfied

12. Which course management system is primarily used for your online course?

   - Blackboard
   - CourseCompass
   - Angel
   - Moodle
   - Other ____________

Rate your level of satisfaction concerning the following areas of your institution’s online program as it relates to level of support:

13. Supervision as it pertains to teaching online courses.

   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

14. Interpersonal relations with your supervisor.

   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

15. Interpersonal relations with your subordinate/s.

   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied
16. Interpersonal relations with your peer/s.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

17. Physical working conditions, i.e. course management system & technical resources.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

Rate your level of satisfaction concerning the following areas of your institution’s online program as it relates to fiscal issues:

18. Level of compensation.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

19. Institutional policies and administrative practices.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

20. Benefits and services.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

Rate your level of satisfaction concerning the following areas of your institution’s online program as it relates to motivational factors:

22. Personal achievement.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

23. Professional recognition.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

24. Professional responsibility.
   - Very satisfied
   - Satisfied
   - Somewhat Satisfied
   - Not satisfied

25. Work itself, for example the general aspects of the job.
26. Opportunities for advancement and growth.

Rate your level of satisfaction concerning the following areas of your institution’s online program as it relates to instructional matters:

27. Overall, how satisfied are you with teaching online at your institution?

28. Would you recommend teaching online to other faculty at your institution?

29. How likely are you to continue to teach online courses?

30. How likely are you to teach the same online course again?

31. How likely are you to develop and teach new online courses?
Appendix B

Site Selection

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Student Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama Southern Community College</td>
<td>Monroeville, AL</td>
<td>1,244</td>
</tr>
<tr>
<td>Bevill State Community College</td>
<td>Jasper, AL</td>
<td>3,986</td>
</tr>
<tr>
<td>Central Alabama Community College</td>
<td>Alexander City, AL</td>
<td>2,177</td>
</tr>
<tr>
<td>Chattahoochee Valley Community College</td>
<td>Phenix City, AL</td>
<td>1,929</td>
</tr>
<tr>
<td>Enterprise-Ozark Community College</td>
<td>Enterprise, AL</td>
<td>2,189</td>
</tr>
<tr>
<td>Gadsden State Community College</td>
<td>Gadsden, AL</td>
<td>5,514</td>
</tr>
<tr>
<td>George C. Wallace State Community College</td>
<td>Dothan, AL</td>
<td>3,707</td>
</tr>
<tr>
<td>George C. Wallace State Community College</td>
<td>Hanceville, AL</td>
<td>5,247</td>
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<td>George C. Wallace State Community College</td>
<td>Selma, AL</td>
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<tr>
<td>Jefferson Davis Community College</td>
<td>Brewton, AL</td>
<td>1,257</td>
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<tr>
<td>John C. Calhoun State Community College</td>
<td>Tanner, AL</td>
<td>9,117</td>
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<tr>
<td>Lurleen B. Wallace Community College</td>
<td>Andalusia, AL</td>
<td>1,592</td>
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<td>Northeast Alabama Community College</td>
<td>Rainsville, AL</td>
<td>2,513</td>
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<td>Northwest Shoals Community College</td>
<td>Muscle Shoals, AL</td>
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<td>Shelton State Community College</td>
<td>Tuscaloosa, AL</td>
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<tr>
<td>Snead State Community College</td>
<td>Boaz, AL</td>
<td>2,157</td>
</tr>
<tr>
<td>Southern Union State Community College</td>
<td>Wadley, AL</td>
<td>4,936</td>
</tr>
</tbody>
</table>
January 12, 2011

Kristie Ramsey
ELPTs
College of Education
The University of Alabama

Re: IRB # 11-OR-009 “What Factors Determine the Satisfaction of Online Instructors at Rural Community Colleges?”

Dear Ms. Ramsey:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on January 10, 2012. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carman A. Myles, MSM/CM
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama
UNIVERSITY OF ALABAMA
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying Information

Principal Investigator: Kristie Ramsey
Second Investigator: Dr. Claire Major
Third Investigator: 

Department: HBA
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E-mail: kramsey@jwcc.edu

Title of Research Project: What Factors Determine the Satisfaction of Online Instructors at Rural Community Colleges?

Date Submitted: 10/30/10
Funding Source: none

Type of Proposal: New

UA faculty or staff member signature:

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):

Type of Review: Full board

IRB Action:

(Date)

Reviewed

Tabled Pending Revisions
(Approved Pending Revisions

(Date)

(Approved

Items approved: Research protocol (dated)
Informed consent (dated)
Recruitment materials (dated)

Other (dated)

Approval signature. Date 11/11/2011

(Approval is effective until the following date: 1/10/2012)

Approved; this proposal complies with University and federal regulations for the protection of human subjects.)