THE EFFECTS OF PROFESSIONAL DEVELOPMENT ON ONLINE ADJUNCT FACULTY
JOB SATISFACTION IN A COMMUNITY COLLEGE SETTING

by

Marie Collins Ferguson

Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree

Doctor of Education

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ABSTRACT

This quantitative causal comparative research study, guided by Herzberg’s (1964) Two Factor Theory of Motivation, and conducted with 106 online adjunct faculty members teaching at a community college in a Southeastern state, examined the effects of four types of professional development (PD) training for online instruction (i.e., fully online, fully face-to-face, blended [online and face-to-face], and none) on online adjunct faculty members’ levels of motivation and hygiene job satisfaction. Data were analyzed using two one-way MANCOVAs. The first one-way MANCOVA addressed the first research question, which inquired if there were significant differences across online instruction PD training groups on the motivation job satisfaction factors of general job satisfaction, recognition, and autonomy, controlling for online instruction self-efficacy and age. The second one-way MANCOVA addressed the second research question, which queried if there were significant differences across PD training groups on the hygiene job satisfaction factors of faculty support, salary, and teaching schedule, controlling for online instruction self-efficacy. Results from the first one-way MANCOVA showed that participants in the four online instruction PD training groups did not have significantly different levels of general job satisfaction, recognition and autonomy. Results from the second one-way MANCOVA were significant. Participants in the entirely online PD training group had a significantly lower mean faculty support score than did participants in the blended PD training group. Participants who had not received PD training for online instruction had a significantly lower mean teaching schedule score than did participants in the other three PD training groups.

Keywords: professional development, online adjunct faculty, job satisfaction, Herzberg’s theory of motivation, community college
Dedication

I dedicate this work to my amazing family. My daughter, Ashley, has always been the wind beneath my wings and my inspiration. To my son-in-law, Eric, thank you for holding things together during this process. Thank you my innocent and handsome grandson, Weston, for understanding why I was limited with time and for always reminding me love and laughter are the purpose of life.
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List of Abbreviations

Certificate for Online Adjunct Teaching (COAT)
Dependent variables (DVs)
Existence, Relatedness, and Growth (ERG)
Exploratory factor analysis (EFA)
Generalized Self-efficacy Scale (GSES)
Institutional Review Board (IRB)
Missing at random (MAR)
Missing completely at random (MCAR)
Missing not at random (MNAR)
Multivariate analysis of covariance (MANCOVA)
National Center for Education Statistics (NCES)
One-way analyses of covariance (ANCOVAs)
Online Educator Self-Efficacy Scale (OESES)
Part-time Faculty Job Satisfaction Survey (P-TFJSS)
Professional development (PD)
Variance inflation factors (VIFs)
CHAPTER ONE: INTRODUCTION

Introduction

Higher education has experienced exponential growth of online coursework and education initiatives between 2002 and 2013, with the most rapid growth occurring at community colleges (Allen & Seaman, 2013; Coalition on the Academic Workforce, 2012; Community College Research Center, 2014). Data collected by Allen and Seaman (2013) revealed that 7.1 million US students enrolled in at least one online course in 2013; that number is expected to double over the next five years. Moreover, while student enrollment in community colleges decreased by 2%, the percentage of student enrollment in online courses at community colleges increased by 21% between 2012 and 2013 (Allen & Seaman, 2013; Lokken & Mullins, 2014). College leaders, especially at community colleges, often cannot employ a large enough base of full-time faculty to adequately meet the rising demand for online classes and programs (Bedford, 2009; Lokken & Mullins, 2014).

The hiring of part-time adjunct faculty to teach numerous online courses is a cost-effective practice, especially for community college administrators who may have fewer fiscal and human resource resources than administrators of four-year colleges and universities (Charlier & Williams, 2011; Datray, Saxon, & Martirosyan, 2014; Lokken & Mullins, 2014). Adjunct instructors are part-time, contingent faculty who are hired to teach on a per course basis (Allen & Seaman, 2013; Coalition on the Academic Workforce, 2012; House Committee on Education and the Workforce, 2014). In 2011, the National Center for Education Statistics (NCES) figures placed adjunct faculty numbers at 60% of all instructors (National Center for Education Statistics, 2012). When considering only the community college, adjunct faculty comprised nearly 70% percent of all class instructors in 2011 (National Center for Education
Statistics, 2012). Kezar and Maxey (2013) reported that, in 2012, 68.7% of faculty in community colleges were part-time non-tenure track (i.e., adjunct) faculty as compared to 45.8% of faculty at four-year public universities, 40.2% of faculty at private universities, and 52.5% of faculty at private two-year colleges.

As of 2010, a new classification of adjunct faculty was developed due to the amplified need for adjuncts teaching explicitly online (Charlier & Williams, 2011; Lokken & Mullins, 2014). The professional or contingent adjunct is part-time faculty who teach for one or more educational institutions to create a full-time instruction load and who has taught at one institution for at least three years (Charlier & Williams, 2011; Lokken & Mullins, 2014). Approximately 60% of online, adjunct faculty identified as professional or contingent adjunct faculty at community colleges (Charlier & Williams, 2011; Lokken & Mullins, 2014).

The heavy course load of online instructors at community colleges has raised concerns regarding instructional capabilities and impact on student learning as well as adjunct faculty burnout and job dissatisfaction (Charlier & Williams, 2011; Coalition on the Academic Workforce, 2012; Heuerman, Jones, & Kelly, 2013). In a study of online adjunct faculty conducted by the Coalition on the Academic Workforce (2012), it was found that approximately 60% of online adjunct faculty taught between two and four courses per semester and over 8% taught six to seven courses per semester. The percentage of credit hours taught by adjunct faculty has reflected both institutional dependency on and potential instructional and student learning impact of adjunct instruction (Community College Research Center, 2014; Datray et al., 2014), yet research has documented high rates of online adjunct dissatisfaction with the climate of the campus and/or workplace (Charlier & Williams, 2011; Heuerman et al., 2013). The increasing number of adjunct faculty employed by post-secondary institutions, predominantly the
community college setting, is indicative of the need to have motivated, satisfied adjunct faculty (Community College Research Center, 2014).

In order for community colleges to meet the demands of online students and remain competitive in the higher education arena, it is crucial that administrators provide online adjunct faculty the resources and support they need to enhance their job satisfaction (McDaniel & Shaw, 2010; Tassinari, 2014). Increased levels of job satisfaction can, in turn, lead to more effective and engaged online teaching (Datray et al., 2014; Lokken & Mullins, 2014; Tassinari, 2014). A much-needed resource for adjunct faculty is the provision of professional development (PD) training concerning online instruction (Dolan, 2011; Shattuck, Dubins & Zilberman, 2011; Tassinari, 2014). In the literature that exists on online, adjunct faculty, researchers have argued that, in order for PD initiatives to be effective, higher education administrators must advocate for such initiatives (McDaniel & Shaw, 2010; Puzziferro & Shelton, 2009; Shattuck et al., 2011). This presents community college leaders with a tremendous opportunity to develop the skills of professional, online, faculty and to leverage their experience to further enhance the quality of online instruction and hence, learning for students (Datray et al., 2014; Dolan, 2011; Tassinari, 2014).

The purpose of this chapter was to provide an overarching review of the proposed study. Chapter One opens with a background literature section significant to understanding the need of professional development for online adjunct faculty. The chapter continues with a review of the problem that the study addressed and the purpose of the study. The theoretical framework grounding this study is then presented, followed by the study research questions, hypotheses, study variables, definitions of terms, and assumptions. Chapter One concludes with a discussion of study limitations.
Background

Despite the community college reliance on adjunct instructors – as well as the human resource and financial benefits of using adjunct instructors – institutional views of adjunct instructors are often negative (Goldman & Schmalz, 2012; Lokken & Mullins, 2014). Adjunct faculty members often work under conditions viewed as suppressive, especially when compared to their full-time colleagues (Halcrow & Olson, 2008; Lokken & Mullins, 2014). Adjunct faculty are frequently disregarded by other faculty and university administrators as being transient workers who are not part of the college community and thus do not provide needed support and resources (Lokken & Mullins, 2014; McDaniel & Shaw, 2010; Meixner & Kruck, 2010). These issues have been most concerning with regard to adjunct faculty who teach online courses, as they receive even fewer resources than do adjunct faculty who teach traditional courses (Lokken & Mullins, 2014; Meixner & Kruck, 2010).

In their annual national study on community college instructional technology, Lokken and Mullins (2014) found that community college online education administrators’ concerns about “obtaining adequate staffing and administrative space” and “organizational acceptance” of adjuncts were ranked 10th and 11th out of 12 (Lokken & Mullins, 2014, p. 14) concerning issues in online education (student acceptance of online education was rated as being the least important). In this same study, the top two online faculty resource challenges seen by community college online education administrators were “engaging faculty in developing online pedagogy” (Lokken & Mullins, 2014, p. 25) and the provision of training/professional development (Lokken & Mullins, 2014). The begrudging acceptance of online educators and their professional development needs on the part of the community college administrator can lead to low rates of
job satisfaction among traditional and online adjunct faculty at four-year schools and at community colleges (Coalition on the Academic Workforce, 2012; Lokken & Mullins, 2014).

Since the mid-2000s, there has been a proliferation of research on professional development (PD) best practices for online adjunct instructors (McDaniel & Shaw, 2010; Puzziferro & Shelton, 2009; Shattuck et al., 2011). These best practices were guided by the perception that PD training opportunities can enhance adjunct instructors’ skills utilizing online course platforms and increase instructors’ online presence and engagement with online students can enhance can lead to positive online adjunct faculty outcomes as well (Shea & Bidjerano, 2010). However, the empirical research on PD trainings for online adjunct instructors has been limited in scope, as the best practices literature often did not include an evaluation component. McDaniel and Shaw (2010) and Puzziferro and Shelton (2009) developed best practices for online instruction PD professional development for adjunct faculty but provided little evidence and no specific evaluation outcomes as justification for these best practices. Shattuck et al. (2011) provided a comprehensive overview of a Certificate for Online Adjunct Teaching (COAT) course offered at the University of Maryland. Despite the detailed description of the course, its implementation, and its components, Shattuck et al.’s (2011) evaluation of COAT was conducted with just 14 COAT participants and no control group. The small sample in Shattuck et al.’s (2011) study precluded the use of inferential statistical analyses used to determine effects of course participation on faculty and student outcomes. Shattuck et al.’s (2011) study was limited to a review of end-of-course survey descriptive results of faculty’s perceived quality of the COAT course. If an evaluation component was included, it was often limited to the assessment of adjunct faculty’s perceptions of the quality and effectiveness of the PD training(s) (Datray et al., 2014; Shattuck et al., 2011; Tassinari, 2014; Vaill & Testori, 2012). An additional limiting
factor of this research was that studies often lacked a guiding theory (Baran, Correia, & Thompson, 2011).

Herzberg’s (1964) two-factor theory on motivation, also called the motivation-hygiene theory, served as the theoretical foundation for this study. Herzberg (1964) conceptualized and refined his two-factor theory on motivation over five years, with the grant-funded research study initiating in 1957. That grant support was available for the study of job attitudes and satisfaction underscored the increasing financial importance of the human factor in business and commerce, especially in industrial cities such as Pittsburgh (Stello, 2011). By reviewing empirical literature on job attitudes, motivation, productivity, and characteristics of satisfied and dissatisfied workers published between 1900 and 1955, Herzberg and colleagues found that a direct association existed between motivation and employee satisfaction, with study results also suggesting a link between employees’ level of job satisfaction and their level of productivity (Herzberg, 1964). This hypothesis was validated in Herzberg’s (1964) study with 203 accountants and engineers in Pittsburgh, Pennsylvania. A review of information gained from semi-structured interviews with these accountants and engineers yielded information that facets of the job pertained to satisfaction or dissatisfaction (Stello, 2011). The conventional thinking of the time was that job satisfaction was a single continuum, with job dissatisfaction on one end, neutrality in the middle, and job satisfaction on the other end (Stello, 2011). In his two-factor model of motivation, Herzberg (1964) argued for a model where job dissatisfaction and job satisfaction had separate continuums and were influenced by distinctly different work elements. The work conditions that influenced the levels of job dissatisfaction were hygiene factors (see Figure 1). The work elements that influenced the levels of job satisfaction were motivation factors (see Figure 1). Hygiene factors, also called intrinsic factors, concerned the “doing of the job;” in contrast,
motivation factors, also called extrinsic factors, “satisfied the need for self-actualization” (Stello, 2011, p. 6).

Figure 1. Herzberg’s (1964) two-factor model of motivation

There is a twenty-year history of higher education research that has utilized Herzberg’s (1964) two-factor theory (Gaytan, 2009; Hoyt et al., 2008; Stello, 2011). Few studies, however, have utilized this theory to explore PD training effects on motivation and hygiene job satisfaction outcomes among online adjunct faculty. A review of the literature yielded three studies that were relevant to this study (e.g., Boord, 2010; Hoekstra, 2014; Hoyt, 2012). Boord (2010), using a sample of 325 community college, online, adjunct faculty, assessed faculty satisfaction for institutional support for PD training as a dependent variable, which differed from this study. Boord (2010) conducted an exploratory factor analysis (EFA) on items from a community college’s annual faculty survey to derive scales of motivation and hygiene job satisfaction. Of the four factors derived from the EFA, three were hygiene factors (faculty support, technology support, and salary) and one a motivation factor (autonomy). Results from a hierarchical multiple linear regression showed that only technology support, a hygiene factor, significantly
predicted perceived institutional support. Age was also a significant predictor of perceived institutional support for PD training.

Hoekstra (2014) examined the effects of an online-only PD training, the Pearson eTeaching Institute, on job satisfaction, controlling for age and gender. Unlike Boord (2010), Hoekstra (2014) conducted the study with 148 adjunct faculty teaching online classes at a community college in Iowa. Results from Hoekstra’s (2014) study showed that PD training, whether it was completion of just one training module and completion of all training modules, did not significantly predict online adjunct faculty members’ job satisfaction. The covariate of age was a significant predictor of job satisfaction; gender was not.

Hoyt’s (2012) study differed from Boord (2010) and Hoekstra (2014) by measuring motivation and hygiene job satisfaction factors using the Part-time Faculty Job Satisfaction Survey (P-TJSS), which was created by the author (see Hoyt et al., 2007) and used in this study. All 15 P-TJSS scales, nine hygiene scales and six motivation scales, were used in regression analyses. Results from Hoyt’s (2012) study showed that six of the nine hygiene factors (teaching schedule, quality of students, faculty support, mentoring, classroom facilities, honorarium [salary], and heavy teaching load) were significantly predictive of job satisfaction, collectively explaining 57% of the variance of job satisfaction. Two motivation factors, work preference and collaborative research, were significant predictors of job satisfaction, explaining 45% of the variance of job satisfaction. Demographic and work information were not included as covariates in Hoyt’s (2012) study.

1 The nine hygiene factors measured by the P-TJSS scales were teaching schedule, quality of students, autonomy, faculty support, mentoring, classroom facilities, honorarium (salary), heavy teaching load, and administrative services. The six motivation factors measured by the P-TJSS scales were work preference, personal growth, recognition, desire for advancement, collaborative research, and responsibility.
The body of research on PD training and job satisfaction among online adjunct faculty is minimal, but results from two of the three studies (Boord, 2010; Hoyt, 2012) suggested that Herzberg’s (1964) two-factor theory provides a meaningful framework to understand how PD training affects job satisfaction among online adjunct faculty. This study built upon the work conducted by Boord (2010), Hoekstra (2014), and Hoyt (2012). This study assessed the effects of four types of PD training for online instruction (i.e., online-only, face-to-face only, blended, and no PD training) on online adjunct faculty’s motivation and hygiene job satisfaction factors. Results from this study can be used to inform the development and implementation of institutional practices concerning the PD training needs of online adjunct faculty.

Problem Statement

The problem addressed in this study was the exponential growth of online classes offered at community colleges, which has increased the need for online adjunct faculty who have the experience, training, and skills to teach effectively online and resultantly, to promote student achievement and growth (Allen & Seaman, 2013). Evidence has suggested that participation in PD training for online instruction can enhance online adjunct faculty’s low levels of job satisfaction (Brannagan & Oriol, 2014; Miller & Bedford, 2013; Palloff & Pratt, 2011; Shattuck & Anderson, 2013; Vaill & Testori, 2012). Participation in PD training focused on online pedagogy can result in not only the increased retention of qualified adjunct faculty but also their instructional effectiveness (Palloff & Pratt, 2011; Shattuck & Anderson, 2013; Vaill & Testori, 2012). Despite the recognized benefits of online instruction PD training for online adjunct faculty cited in research (Horvitz & Beach, 2011; Jackson & Maxwell, 2013; McDaniel & Shaw, 2010), there has been little empirical examination of the effects of PD training for online pedagogy on facets of motivation and hygiene job satisfaction among online adjunct faculty.
According to Mueller, Mandernach, and Sanderson (2013), higher education administrators should create opportunities that enhance online adjunct faculty’s effectiveness in the classroom and larger learning community. This study, an examination of the effects of online instruction PD training for online adjunct faculty on their motivation and hygiene job satisfaction outcomes, aligned with Herzberg’s (1964) theory of motivation and contributed to and advanced the current literature on online adjunct faculty job satisfaction.

**Purpose Statement**

The purpose of this quantitative study, using a convenience sample of 100 online adjunct faculty members, was to test Herzberg’s (1964) theory of motivation by measuring the effects of four different types of online instruction professional development on job satisfaction among online adjunct faculty at community colleges with two-year degree programs, located in a southeastern state in America. The independent variable was level/condition of professional development for online instruction, with 0 = no professional development, 1 = online-only professional development, 2 = face-to-face-only professional development, and 3 = blended (both only and face-to-face components). There were six dependent variables (DV$s), three for each job satisfaction construct. Motivation job satisfaction DV$s were general job satisfaction, recognition, and autonomy subscales. Hygiene job satisfaction DV$s were faculty support, salary (honorarium subscale), and work conditions (teaching conditions). Items on the motivation and hygiene job satisfaction scales were coded as 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = agree (Hoyt et al., 2007). The motivation and hygiene job satisfaction scales had possible range of scores from 4 to 24, respectively. The primary covariates were gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty. These covariates were included as they have shown to be
significantly associated with job satisfaction in adjunct faculty (Herman, 2012; Miller & Bedford, 2013). Additional variables, such as age, ethnicity, and highest level of education were also examined as covariates.

**Significance of the Study**

This study was significant for community college administrators to understand the effects of professional development training on online adjunct faculty’s satisfaction as well as to provide ideas on how institutional support for online adjunct faculty can be implemented to meet the needs of online adjuncts. As online education continues to grow, educational leaders need to understand how to manage online programs (Galliard-Kenney, 2006; West, 2010; Allen & Seaman, 2013). While there is literature about best practices in online teaching, there needs to be greater understanding of how training influences online adjunct faculty’s job satisfaction (Bowers, 2013). This study had the potential to identify the essential components that effectively enhanced the professional development provided to online adjunct faculty as they related to job satisfaction. Significant findings from this study could assist other community college administrators in future planning for online adjunct training.

**Research Questions**

This study, guided by Herzberg’s (1964) two-factor theory of job satisfaction and utilizing the theoretically associated survey of Part-time Faculty Job Satisfaction, extended the body of literature that examined job satisfaction in online adjunct faculty teaching at community colleges (Boord, 2010; Hoekstra, 2014; Hoyt, 2012). This study included as the independent variable levels four online instruction professional development conditions: no training, fully online training, fully face-to-face training, and blended training. The dependent variables of job
satisfaction were assessed via motivational and hygiene constructs (three per category). This study addressed the following research questions and sub-questions:

**RQ1:** Are there statistically significant differences on *motivation* job satisfaction (i.e., general job satisfaction, recognition, and autonomy) mean scores between online adjunct faculty who received online-only professional development, face-to-face only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1a:** Are there statistically significant differences on *general job satisfaction* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1b:** Are there statistically significant differences on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1c:** Are there statistically significant differences on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction
professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2:** Are there statistically significant differences on *hygiene* job satisfaction (i.e., faculty support, salary, and working conditions) mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2a:** Are there statistically significant differences on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2b:** Are there statistically significant differences on *salary* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2c:** Are there statistically significant differences between *working conditions* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?
Null Hypotheses

This study considered the following null and alternative hypotheses for the research questions. The null and alternative hypotheses addressed differences between professional development online adjunct faculty categories with regard to the three dependent variables per motivation (general satisfaction, recognition, and autonomy) or hygiene (faculty support, salary, and work conditions) job satisfaction categories.

**H₀₁:** There is no statistically significant difference on general job satisfaction mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₁:** There is a statistically significant difference on general job satisfaction mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₂:** There is no statistically significant difference on job recognition mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.
**H₁₂:** There is a statistically significant difference on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₃:** There is no statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₃:** There is a statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₄:** There is no statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₄:** There is a statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development
for online instruction for online instruction, while controlling for gender, perceived online
instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₅:** There is no statistically significant difference on *salary* mean scores between online
adjunct faculty who received online-only professional development, face-to-face- only
professional development, blended professional development, or no professional development
for online instruction for online instruction, while controlling for gender, perceived online
instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₅:** There is a statistically significant difference on *salary* mean scores between online
adjunct faculty who received online-only professional development, face-to-face- only
professional development, blended professional development, or no professional development
for online instruction for online instruction, while controlling for gender, perceived online
instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₆:** There is no statistically significant difference between *working conditions* mean
scores between online adjunct faculty who received online-only professional development, face-
to-face- only professional development, blended professional development, or no professional
development for online instruction for online instruction, while controlling for gender, perceived
online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₆:** There is a statistically significant difference between *working conditions* mean
scores between online adjunct faculty who received online-only professional development, face-
to-face- only professional development, blended professional development, or no professional
development for online instruction for online instruction, while controlling for gender, perceived
online instruction expertise, and length of time employed as an online adjunct faculty member.
Identification of Variables

In this study, the independent variable was type of online instruction professional development level/condition, where 0 = no professional development, 1 = online-only professional development, 2 = face-to-face-only professional development, and 3 = blended (online and face-to-face components). The dependent variables pertained to motivation and hygiene factors of job satisfaction. The Part-Time Faculty Job Satisfaction Survey (Hoyt et al., 2007), which was created as a means to psychometrically capture Herzberg’s (1964) motivation and hygiene factors of job satisfaction, was used as a the primary measure in this study. This scale contained three subscales measuring the overall job satisfaction, recognition, and autonomy components of motivation job satisfaction and three subscales measuring the faculty support, salary, and working conditions components of hygiene job satisfaction. All of these subscales were comprised of four items, each measured on a scale coded as 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = agree (Hoyt et al., 2007). The subscale scores had the potential to range from 4 to 24 points, with a higher score denoting higher levels of the specific job satisfaction construct.

Definitions

1. *Job satisfaction* - A psychological and environmental condition that fulfills an individual’s work experiences (Mishra, 2013).

2. *Multivariate analysis of covariance (MANCOVA)* - A statistical procedure used to observe multiple dependent variables for differences between independent groups, while controlling for additional variables that could be connected to the dependent variable (Gall, Gall, & Borg, 2007).
3. **Online adjunct faculty** - An instructor who teaches an online class serving in the adjunct status (Sander, 2011).

4. **Online education** - Online education has been summarized as learning that takes place in various settings anytime through the use of technology (Rotella, 2010).

5. **Organizational commitment** - The level of an individual’s involvement with the organization (Mowday, Porter & Steers, 1979).

6. **Professional adjunct** - Part-time faculty who teach for several educational institutions, as a way to create a full-time instruction load (Bedford, 2009).

7. **Professional development** - Training faculty engage in to improve their skills in classroom (Kabilan, Adlina & Embi, 2011).

### Research Summary

This quantitative study utilized a causal comparative research design to examine the effects of faculty completion of professional development for online instruction as presented across four conditions (i.e., fully online, fully face-to-face, blended [online and face-to-face], and none] on online adjunct faculty’s levels of motivation and hygiene job satisfaction (Bryman, 2012; Shadish, Cook, & Campbell, 2002). A power analysis (further discussed in Chapter Three), conducted to determine the adequate number of participants needed for the study, showed that the required sample size for this study was $N = 100$ or $n = 25$ per group. To ensure that the required sample size was met, the researcher sent email invitations to participate in the study to all 200 online adjunct faculty who taught at the community college. Obtaining the required sample size of 100 participants required a 50% response rate, slightly higher than the average response rate of 41% seen in online studies (Hamilton, 2009; Millar & Dillman, 2011). The sampling method was convenience sampling. Participation was elicited via (a) email contact,
(b) presenting the study and professional development training at adjunct faculty meetings and lunches, and (c) the college’s online messaging system.

Assumptions

All studies have assumptions (Creswell, 2013; Sue & Ritter, 2012). This study was based on the assumptions that online, adjunct faculty wanted to participate in professional development training to enhance their teaching methods as means to provide better support to their students, and/or to improve their job satisfaction and organizational commitment. Another assumption was that participants in this study would accurately complete and answer the anonymous survey questions willingly and justly in respects to online faculty development and their experiences. It was understood that participants may have been influenced by a social desirability bias, that is, the desire to answer research survey questions in a favorable manner (Norwood & Lusk, 2011). Consent forms, which explain confidentiality, anonymity, and the right of participants to not answer any questions they do not wish to answer, should have helped to address confidentiality and anonymity issues (Christensen, Johnson, & Turner, 2011). The use of a MANCOVA controlling for covariates also helped to reduce this bias (Bonate, 2010). The last assumption was that the community college administrators were open to this study, including results that could possibly show that low rates of job satisfaction exist among some or all categories of online adjunct faculty members. The community college provides professional development opportunities to faculty, including online, traditional, tenure-track, and adjunct, and recognizes the importance of such training on building faculty online pedagogical practices. This assumption was likely met.
Limitations

According to Christensen et al. (2011), limitations in studies include threats to the internal validity of studies, of which the investigator tries to reduce. This investigation was limited to the honesty of participant’s feelings within the survey. Informed consent procedures as well as the online format of the survey likely reduced this limitation (Christensen et al., 2011; Sue & Ritter, 2012). The inability to know for sure that all surveys received by the researcher were completed posed as a second limitation. The researcher addressed this limitation by highlighting the importance of this study and encouraging participants to complete the survey (Christensen et al., 2011). Bootstrapping, which is a statistical procedure that uses linear regression techniques to replicate a small sample, could help to reduce this limitation at the analysis stage, should it be needed (Christensen et al., 2011). This research study was limited to participants employed as online, adjunct faculty in the community college setting, with two-year degree programs, located on the East Coast of the United States. There was little control over this limitation, and results from this study cannot be generalized to other faculty populations (e.g., tenure-track) or to other institutions of higher education (e.g., traditional universities).
CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

The increase in adjunct faculty employment in the community college can be attributed to the increased popularity of online learning, which is being driven by the shifting trend from traditional to nontraditional students entering college. This, coupled with the nation’s economic decline, has forced colleges to offer even more online learning courses as a way to attract the over twenty-five population. The increase in online adjunct faculty enables the college to maintain economic efficiency while attracting both traditional and nontraditional students.

Even the traditional aged student is entering post-secondary education with a different view; they were born with and have lived with the Internet and social media. This new view on learning and the changes in technology has an overbearing effect on the institutions and their teaching methodologies. Now faced with new demographics and advanced technologies, the colleges also face a need for a paradigm shift in their view of instruction. They must find new ways to interact with the students by empowering the online adjunct faculty to become a guiding force in student learning.

Is higher education creating an atmosphere conductive to job satisfaction and commitment to the organization for their increased online-adjunct faculty? The remainder of this chapter will focus on examining the effect of professional development of online adjunct faculty to their level of job satisfaction and commitment to the institution.

Theoretical Framework

Theory of Motivation

When measuring employee satisfaction there are a number of research theories that apply: Maslow’s (1943) hierarchy of needs, Herzberg’s Theory of Motivation (Herzberg,
Mausner & Snyde, 1959), McGregor’s (1960) theory X and theory Y, Vroom’s expectancy theory (1964), Herzberg’s (1964) theory on motivation, and Alderfer’s (1969) existence, relatedness, and growth (ERG) theory. The theoretical foundation for this study of the effects of professional development on online adjunct faculty’s job satisfaction in the community college setting is based on the theoretical framework of Herzberg’s (1964) theory on motivation.

Herzberg (1964), a psychologist, developed this theory and theorized that job satisfaction and job dissatisfaction act independently of each other (Lumadi, 2014). Herzberg theorized that a direct correlation existed between motivation and employee satisfaction, thereby suggesting that the degree to which employees are satisfied with their job and the environment in which they work is indicative of the level of a productiveness and effectiveness that community will celebrate. Herzberg’s results were extracted from interviews with accountants and engineers; however, it has been shown through other studies that the theory is also applicable to higher education communities for both full-time and part-time faculty (Davoudi & Mousave, 2012; Dolan, 2011).

According to Hoyt et al. (2008), research shows adjunct faculty suffer from lack of integration in the college, fostered alienation, and disconnection in the community college environment. Research indicates the measures of job satisfaction are significantly lower among online adjunct faculty than full-time faculty (Merriam, 2010). Herzberg (1964) explained job satisfaction is not the opposite of job dissatisfaction; the opposite of job dissatisfaction is simply no job dissatisfaction. Herzberg (1964) also describes motivational factors as things influencing workers’ attitude. Herzberg went further to substantiate the findings in his original study through analysis of sixteen additional studies, which confirmed the implication that “the factors involved in producing job satisfaction are separate from the influences that lead to job dissatisfaction
(Herzberg, 1964. The aforementioned studies are in support of the theoretical concept of this study.

While many scholars have supported this theory, other literature exists that questions its validity and applicability. Researcher Gardner (1977) had conflicting views on Herzberg’s theory of motivation. A study by Bassett-Jones and Lloyd (2005) determined Herzberg’s theory of motivation was still appropriate for measuring job satisfaction years after its origin.

Researchers Waltman, Bergom, Hollenshead, Miller, and August (2012) used Herzberg’s theory to explain career satisfaction for higher education professionals. Boord (2010) focused on the use of Herzberg's motivation-hygiene theory to predict job satisfaction in teaching improvement and professional development. Furnham, Eracleous, and Chamorro-Premuzic, (2009) proposed that satisfaction and dissatisfaction were not two opposite extremes of the same continuum, but two separated entities caused by different facets of effort. Ahmed, Nawaz, Iqbal, Ali, Shaukat, and Usman, (2010) used Herzberg’s two-factor theory to conclude that significant relationship exists between motivational factors and job satisfaction. Understanding and appreciating the influencing effect of Herzberg dual factor of motivation on employee's job satisfaction helps the organization to improve drive, efficacy and efficiency among the employees (Hong, 2011). Since support for Herzberg’s original study has been validated through these studies which found similar results, it is also appropriate to ground this research study which will focus is on the online adjunct professional who may experience low job satisfaction and often have a lower level of organizational commitment. As applied to my study, this theory holds that I would expect my independent variable of professional development to explain the dependent variables of job satisfaction as measured by the electronic survey in the understanding as to what extent professional development influences online adjunct faculty job satisfaction.
Although Herzberg’s (1964) theory of motivation does explain causes of job satisfaction as well as job dissatisfaction when applied in educational settings, it falls short in explaining factors related to organizational commitment. Blau’s (1964) theory of social exchange hypothesizes that mutual commitments develop across time and include the concept of trust and loyalty; this theory indicated that organizational commitment is contributed to relationships. The receiving party in a social exchange situation will evaluate the worth of benefits received then determine what should be given in return (Murstein, Cerreto & McDonald, 1977). The parties of social exchanges with in an organization are the employees and the organization itself; the exchanges are processes which benefit the employee in return for what makes the organization stronger and vice versa (Cole, Schaninger & Harris, 2002).

When viewing social exchange as a method for causing a sense of obligation between two parties in which the receiving party feels the need to reciprocate in order to continue receiving preferred benefits (Ahmed, Ismail, Amin & Ramzan, 2013), it becomes more evident that in a changing economy with a more global educational system, the need exists to further examine the area of organizational support (Baran, Shanock & Miller, 2012). An important study examining organizational commitment with educators is that of Bogler and Ni (2012); this study investigated the type of mediating effect empowerment has on job satisfaction and perceived organizational support within a sample group comprised of Israeli elementary school teachers. Unlike prior studies concerning teacher job satisfaction as related to school improvement, the focus of Bogler and Ni’s study was on interrelationship with job satisfaction as well as perceived organizational support. This study supports the idea that empowerment is a result of organizational support and commitment (Bogler & Ni, 2012). It would seem that Bolger and Ni concurred with Becker and Gerhart (1996) that the level of commitment can be elevated between
two parties when something of value is given from one party to the other, thereby creating a sense of commitment from the receiving party to the offering party.

Blau (1964) was very ambitious and presented empirical evidence for his social exchange theory, yet failed to produce the clarity other researchers demand for full support of his theory. Spread (1984) considered Blau as nearly developing the “holy grail of the social sciences with his theory of social exchange as an integrated theory of society” (p. 157). Spread argued that Blau was ambiguous in his definition of “social support,” suggesting that social support is a broader concept than indicated in Blau’s design (Spread, 1984).

According to Blau (1964), the social exchange theory is indicative of interdependent transactions that can foster high-quality relationships. On the other hand, there are researchers that argue reciprocity can have negative factors, which can produce a purgative approach to the exchange (Eisenberger, Luch, Aselage & Rohdieck, 2004). This supports Emerson’s (1976) argument that certain circumstances must be present before social exchange offers a deeper more positive spin on relationships.

Many different views of social exchange theory have come to light since it originated in the 1920’s. This theory has been proven to be a useful tool for understanding workplace behavior (Malinowski, 1922; Mauss, 1925). According to Blau (1964), social exchange is a series of interdependent transactions that breed high-quality relationships within the transactions between two (interdependent) parties. This suggests that one party benefits from actions of the other party who will give in return to the first party so as to continue reaping the original benefits, thereby implying that the relationship and the exchange are discernible.

After reviewing the aforementioned theories, Herzberg’s (1964) two-factor theory on motivation, also called the motivation-hygiene theory, will serve as the theoretical foundation for
The unique aspect of Herzberg’s (1964) theory is the identification of factors for job satisfaction and factors for job dissatisfaction.

**Review of the Literature**

At least half of the nation’s students receive their education from a community college. During the 1996-1997 school year, over nine million individuals enrolled in credit courses at the community college. An additional five million students took noncredit classes. Since the beginning of the community college in 1901, at least one hundred million individuals have enrolled in community colleges. In 2010, 6.1 million students took online classes, a 10.1 percent increase from 2009-2010 (National Center for Education Statistics, 2012).

As online educational opportunities continue to increase, so does the use of part-time faculty since colleges and universities cannot employ a large enough base of full-time faculty to adequately meet the rising demand for online classes and programs (Bedford, 2009). The 2012 National Center for Education Statistics’ figures placed adjunct faculty numbers at 50 percent of all instructors (National Center for Education Statistics, 2012). The influx of online classes has increased the need for online adjunct faculty and professional development opportunities to enhance the quality of instruction for all faculties at their institutions (Lyons, 2007).

**Online Classes**

The online education instructional delivery method is no longer an afterthought for postsecondary institutions as students are enrolling in related programs at higher rates compared to enrollments in traditional education. Almost all colleges and universities of higher education now offer online education classes to meet the demand from students seeking options to traditional on campus education (Hernandez-Gantes, 2009). Online education provides a flexible
and accessible format that attracts students to choose more online classes (Horvath & Mills, 2011).

Online courses in higher education have grown tremendously in scope and volume in the past decade. As discussed by researchers Moller, Foshay and Huett (2008), the increase in online courses is transforming higher education. Allen and Seaman (2007, 2010) have tracked online registration for years and found that online enrollments have, in fact, grown at rates that far exceed total student populations in higher education. In the fall of 2005, statistics showed that more than three million students took at least one online course, and in 2006 more 96 percent of the largest educational institutions in the United States offered online courses (Gaytan, 2009). Among fall 2007 and fall 2008, there was a 22 percent increase in online admissions (Shattuck et al., 2011).

According to Allen and Seaman (2011) during the fall 2010 school term, over 6 million college students were taking at least one online course for an increased student enrollment of 560,000 students over the previous year. Due to increased college online classes, many community college students experienced academic difficulty in online courses. As the amount of online education courses in higher education has increased, concerns and issues have risen about contributing factors to the success of students taking online classes in community colleges. Because of the continued growth of online education, there should be an effort to learn more about student success in the online setting.

Colleges and universities view online education as an effective means for supporting enrollment (Moller et al., 2008; Young & Lewis, 2008). Wise and Rothman (2010) discussed the growing evidence of the cost effectiveness of online learning as courses can be developed, copied, and reused by other teachers. In addition, the duplication and setting of online courses
offers, to some extent, quality control in terms of content presented and course design. The virtual learning environment changed the manner in which instruction is delivered. As a result, the virtual environment affected the roles of teachers and students and the ways in which they communicate and interact.

According to National Collegiate Retention and Persistence to Degree Rates (2008), retention rates for universities vary per academic level. Associate degree programs at public institutes had a retention rate of 29.3 percent, but private institutions had a retention rate of 50.2 percent. Bachelor's degree programs at public and private institutions had retention rates of 40.3 percent and 56.1 percent, respectively. Master's degree programs at public and private universities are 38.8 percent and 55.4 percent, respectively, during the first year. Not only are universities struggling to retain students who attend classes on campus, but also there is a greater challenge in retaining students enrolled in online programs (Evans, 2009).

In Allen and Seaman’s (2011) survey of college principal academic officers, 65 percent of the officers identified that online learning was a critical component in their long-term strategic planning for their organization. The number of individuals that were skeptical that individuals learn through online courses is shrinking. Allen and Seaman (2011) discussed, over two-thirds of academic leaders believed that online was equal to or superior, the remainder of the leaders polled continued to believe learning outcomes for online courses are inferior to face-to-face instruction (p.17).

As distance learning classroom opportunities continue to grow exponentially, shrewd investment in time and funding for effective support of distance education is essential (Boyle, Jinhee, Ross & Simpson, 2010). The theory of the distance-learning environment is constantly progressing. In the past learning communities took place through social interaction in a
communal setting, but virtual comminutes like Facebook and Twitter are growing daily. These types of social interactions can be used for online courses to create social interaction and relationships. Online courses and programs are changing general education, and the development of learning communities is essential for effective learning, because it creates student and faculty interaction, which has been found to be effective in student online learning (Boyle et al., 2010). Due to modernized technological developments and the rapid increase of technology, an online course has been an outstandingly applicable medium that provides educational institutions to meet the increasing demands of student enrollment (Allen & Seaman, 2010; McGuire & Castle, 2010).

By 2013, data collected in partnership with the College Board revealed that 7.1 million US students enrolled in at least one online course in 2013; that number is expected to double over the next five years (Allen & Seaman, 2013). This 2013 survey also indicated that the enrollment in online courses continues to grow at a rate far in excess of overall enrollments. Research shows that distance education provides settings for students to either supplement traditional methods of education or take the place of it completely. Apart from reasons students choose distance education opportunities, it remains that distance and online education offers chances for students to carry on their education. Whether the online preference will be a positive experience for the student may be influenced by many variables. College officials and professors may affect a percentage of these variables, and others are associated with the individual. Student ability and motivation are challenging if not impossible to control and directly related to the success of all instructional processes. By being able to identify a variation of factors which contributed to the success of students in online courses, these factors can be used to aid students, parents, and school districts in determining which students are better equipped to enroll in these
courses (Allen & Seaman, 2013).

21st Century Learners

The Millennial Generation learner is a topic of principal interest for 21st-century educators. These learners live in economic wealth, are positive about the future and are a protected generation. This generation has more distinct demographic technology than earlier generations, including lenient views of diverse people, distinctive political and social values, and strong attitudes about social justice. Jones (2012) stated “Females are the predominant gender of the Millennial Generation, shown by 57 percent female enrollment in postsecondary educational settings” (p.17). The Millennial Generation devotes much time and energy to their educational endeavors. They expect high grades as validation of their academic accomplishments, and they do not hesitate to have their parents interfere when they feel academically slighted. This generation requires an active, immersive role in their education. Due to their high academic expectations, Millennial encounter excess stress regarding their education. They prefer to work collaboratively and require structured, learning activities that promote creativity. Millennial students exhibit a marked decline in active reading practices, rarely reading newspapers or books. Millennial students see education as a path to their dreams and career ambitions. They are aware that getting into a quality college is crucial for a fulfilling and lucrative future. The Millennial learner's principal communication abilities rely on texting, instant messaging, and e-mail rather than standard personal communication modes like the telephone, correspondence, and face-to-face interaction (Jones, 2012).

Twenty-first century learning demonstrates very little of the 3R’s while adding the 3C’s of creativity, communication, and collaboration; therefore, enabling the student to demonstrate digital literacy and civic responsibility. The teacher must become an entrepreneur in the
classroom in order to foster powerful learning among their students.

The twenty-first century students are not just consumers of the traditional teaching methods, but creators of knowledge. Students are inspired to create blogs, contribute to Wikipedia, and collaborate on sites such as Facebook. Teachers should be vigilant. Learners are still practicing the 3 R’s in their technology to friends outside the schoolroom. Educators must connect this enthusiasm to the classroom by using similar strategies to engage students in the classrooms. Students are accessing social networking sites to communicate and write. Educators must learn to incorporate this information into a learning environment where students work together and create class projects online. Technology has produced educational programs that ensure safe sites for student publications; educators can tie together the motivation for student publishing to encompass a huge collection of performance-based and standard-based assignments. Teachers can provide students with an educational classroom on the web where they can demonstrate student learning and demonstrate progress all through their educational goals (Herring & Notar, 2011).

The infusion of technology in the twenty-first century classroom has become more widespread than ever. The twenty-first century learner and educator will continue to use the new technology devices in the classrooms and will learn to rely more and more on these differentiated mobile communication systems. These student tools will consist of printed materials but will also include the use of computers, tablets, and cellular phones. These devices will better prepare learners for job markets of the twenty-first century that require skills in technology, effective communication, and higher order thinking. Technology has been integrated into the educational system that meets the needs of a typical industrialized economy and could produce highly motivated students who wish to improve their vocational or professional status as well as their
income. The twenty-first century students concentrate on technology devices for a variety of reasons such as convenience, flexibility, fulltime work, families, and social endeavors. The educators and learners are responsible for upholding the technology ethical principles, including respect, honesty, awareness, and respect. The global society can use technology to promote secular and Christian education to create learners and disciples of all ages.

Twenty-first century learning emphasizes the need for new teaching and learning methods that rise above instructional methods of the twentieth century. If students are to be competitive in the workforce of their future, the twentieth century single subject classroom must be transformed into that of an interdisciplinary setting with collaboration at the center. Needs of the twenty-first century students can only be met through experiencing the twenty-first century workers’ environment in which these students will seek employment. Job markets of the twenty-first century require skills in technology, effective communication, and higher order thinking; these demands can only be met through an educational system supported with a collaborative project-based curriculum.

The central focus of twenty-first century learning is to place media tools in the hands of students and guide them in applications beyond the four walls of a classroom. Such applications provoke increased thinking, better communication, problem solving, and media literacy, which entice students to become lifelong learners and competitors in real world situations. For students to be ready for the real world, they must be given the opportunity to confront real world situations and scenarios within the comforts of a guided yet collaborative classroom. This collaborative project based curriculum does not lend itself to the ease of “assigning a grade” as do the methods of the twentieth century classroom, but the development of a student portfolio using variety of media and opening the wall of the classroom to include the world allows all
students to demonstrate what and how they have learned. The use of these portfolios not only provide a more comprehensive assessment of academic understanding of student progress, but can also be a teaching tool enhancing further development of future students. The twenty-first century students have diverse needs and interests. Every effort must be made to assure their unique needs and individual interests are met. The key to making a difference in student success is integrating technology in career learning, special education, and gifted education programs.

**Technology Integration**

Technology is progressively more widespread in twenty-first century classrooms, even those occupied by our early education students. Early learners are digital immigrants who are accustomed to technology and have been using computers, tablets, educational apps, YouTube, and Skype and for as long as they can recall. However, some educators question the success of virtual equipment in the classroom (Wilson, 2013).

Today’s students are digital natives; therefore, instruction and learning should be infused with a variety of technology including hand held, mobile, devices which are a part of their everyday living. The typical student spends an average of six hours a day with such mobile devices (McHugh, 2014). According to Rosefsky and Opfer (2012) technology offers 21st century students the potential to develop skills by providing them with new ways to solve problems, think critically, and communicate more effectively. The integration of technology in classrooms has allowed individuals to learn skills through collaboration with other students in diverse settings.

The majority of today’s students own tablets and carry them to their classroom. This concept of classroom structure has caused a substantial amount of teachers to maximize these portable devices to increase interactive learning techniques between the students. The
incorporation of tablet like an iPad has made it very convenient for both teachers and students to study more collaboratively and effectively than ever. The Internet’s wireless network allows teachers and allows students to access visual demonstrations, electronic books and virtually collaborate with other students. The iPad is a popular mobile device of the twenty-first century student, shortly after it became favourite tools of all generations; there have been a sweeping increase of iPad applications, better known as apps. Today’s educational application development has been growing at such a successful rate that teachers and students are incorporating them in the classrooms. Teachers can utilize these technological educational applications to create an interesting learning environment (Berger, 2010).

YouTube is a popular channel that has found its way into twenty-first century the classroom environment because of the massive collection of instructive videos it has to offer to the students on materials discussed in the classroom. YouTube promotes lecture discussions on a variety of subjects and issues given by armatures and experts. Teachers can supervise and allow students to view the online lectures and make notes to comprehend a topic more proficiently. Also, teachers can incorporate private-classroom channels to post instructional information and informative resources to enhance teaching (Berger, 2010).

Educators now have the option to schedule a day or two in a week where they can incorporate a guest speaking conference by means of Skype. This technology program is very cost efficient, encourage question and answers session as well as students can ask questions and receive answers directly from the people who are experts in their fields. Many students in different levels of education fear public speaking, as they may not have mastered this technique from childhood. Students now have podcasting, a technology option that permits students to practice their speaking power. Teachers and students can create podcast on various topics and
debate controversial issues. Educators now have the ability to use a technology program, Web 2.0 tools, to create a website where they can post resourceful information that allows students to interact and collaborate within a virtual environment (Berger, 2010).

**Online Students**

During the 1960's, distance education grew enormously, and comparable distance learning campuses developed. The University of Wisconsin-Madison was the forerunner in online education, which offered a variety of communications technologies to help provide learning to students who were off-campus. Soon after online education began, the innovative ideas were later emulated by schools around the world and provided a much more rapid and modern way to share information and education with students who could not attend traditional courses. The historical argument for online education relied profoundly on the major differences of the older student who was independent, working full-time, managing work, family, and school, unhappy with traditional classroom schedules, travelling, and impatient with the materials and the academic (Buchen, 2013).

The needs of twenty-first century students are different than those in previous years. More students are using computers, Internet, and mobile devices. The students need to learn to express their thoughts about the teaching process and effectively communicate these ideas to educators. Higher education institutions must be prepared to correctly use technology in their online classrooms to engage the curiosity of this modern era of learners. The lifestyles of the twenty-first century students and instructors have changed, and every class of students has different needs. The instructor’s approach must be adapted to meet the needs of all students. These groups of students are willing and eager to learn, but the teachers and the methods they use are the key to online classroom success (Lozano, 2014).
Currently, distance education is offered through a variety of methods. Radio, television, satellites, and the Internet have come to play an integral role in expanding the minds of students around the world (Distance Learning Net, 2014). The majority of distance learning today takes place using the Internet, now readily accessible for students whether in their individual homes or at accommodations such as local libraries. These electronic devices are used to distribute the educational information, allow students communication with professors, and provide access to communication among students.

Technology has been integrated into the educational system that meets the needs of a typical industrialized economy and could produce highly motivated students who wish to improve their vocational or professional status as well as their income. The twenty-first century students concentrate on technology devices for a variety of reasons such as convenience, flexibility, fulltime work, families, and social endeavors. The educators and learners are responsible for upholding the technology ethical principles, including respect, honesty, awareness, and respect. This global society can use technology to promote education to create learners and disciples of all ages.

The information era and the construction of the computer-generated information highway offered the possibility of solutions to the needs of traditional and non-traditional learners. Mariani (2001) was one of the first researchers to recognize that distance education, online classes, and hybrid learning opened a portal to education that erased time and distance for both instructor and student. Although these modes of delivery use technology to deliver and conduct instruction, there are important differences. Austin (2010) discussed, in the 1990s, how technology began changing instructional delivery and many student and academic support services. More and more students acknowledged college as a reality due to programs generated
by new technology. The influence of the Internet on society is prevalent, encompassing many audiences as well as post-secondary education, by offering opportunities to move from the traditional classroom environment into the virtual classroom through the creation of online classes and distance education programs. According to Rovai and Gallien (2005), future studies need to focus on how to equip instructors to offer relevant learning experiences that empower students in a community to join forces, socialize, and intermingle. When instruction is created to actively involve students in meaningful tasks, students’ sense of commitment may be raised. The learner’s involvement and perception of classroom community are devotedly related; individuals experiencing inclusion rather than isolation are more likely better prepared, more actively involved with course learning.

As the acceptance of the Internet has developed, so has the potential to study online. Distance education is a method of learning in which lectures are broadcast or classes are conducted by visual correspondence or over the Internet. Since this method of education has progressed over the past era, research studies that examine issues in variances of learning are now approaching the forefront. Even though online education has lower retention rates than face-to-face classes, customarily each year the amount of students enrolled in online courses increases (Jackson & Maxwell, 2013).

Park and Choi (2009) believed that student individualities might not be as important as other factors when examining how to improve student’s learning proficiencies online. Instead, the emphasis for institutions and instructors must be precisely on how to produce increased engagement and a sense of societal interaction, resulting in enhanced student satisfaction and persistence in online courses. One acute perceptive involves adequate professional development for all faculty who teach online. Detailed instructional design schemes and knowledge of best
practices can help instructors offer sufficient opportunities for student collaboration, participation, and feedback among themselves and with the instructor (Park & Choi, 2009).

The utmost concern for students in an online learning setting is the lack of meeting with a professor in a classroom on a campus or other designated location. The online student works rigorously from their computer and interaction between teacher and student often occurs by means of email. There may be a telephone conversation or Skype call, but most frequently, email is the usually the method of communication in the online learning course. There are numerous explanations for a student to enroll in an online course. The work and school demands can be stressful. Going to college after work means late nights, being away from home, and possible traffic in commuting, and missing time and possibly events with family. Because of the demands on the physical form, online courses might become an attractive alternative (Buchen, 2013).

According to Roach (2002), the online distance-learning market is growing 40 percent annually with about 350,000 students, or 2 percent of the U.S. higher education enrollments, generating $1.75 billion yearly. To keep up with this growth, colleges and universities have seen the need to increase online adjunct faculty to teach students in these courses. A 2009 study conducted by the Educause Center for Applied Research (Smith, Salaway, & Borreson Caruso, 2009) encompassing 125 colleges and universities across the United States revealed that less than 50 percent of the students surveyed felt information technology was being used effectively by their online instructors (Macdonald & Poniatowska, 2011). Institutions face the dilemma of providing professional development that not only ensures understanding of how to use technology effectively but how to consider online learners and pedagogies. The 2012 National Center for Education Statistics’ figures placed adjunct faculty numbers at 50 percent of all instructors (National Center for Education Statistics, 2012). But when considering only the
community college, adjunct faculty comprises nearly 70 percent of all class instruction (National Survey of Part-time/Adjunct Faculty, 2010). Traditionally, adjunct faculty have been a significant part in higher education; however, they are frequently disregarded, presented marginally supported by the institution, and given very few resources (Gappa, 2000). Adjunct faculty have diverse motives for teaching in a part-time setting. These professionals play an important role at the college; they are a vital part of postsecondary instruction. Creating a feeling of community in which all adjunct faculty are included and valued is the key to the overall success of any college or university (West, 2010).

Lately, a new classification of adjunct faculty has developed, due to the amplified need for adjuncts explicitly in online curriculums. The *professional adjunct* is part-time faculty who teach for several educational institutions as a way to create a full-time instruction load (Bedford, 2009). Irrespective of the grouping into which these individuals fall, adjunct faculty members are often working under conditions viewed as suppressive, especially when compared to their full-time colleagues (Gappa, 2000). This continued increase in online education has created a need for qualified part-time faculty. These demands are being met in large through the use of adjunct instructors to teach the increasing online course enrollments.

**Online Enrollment**

Online enrollment in the United States has steadily grown over the past decade, particularly in rural areas (Alessi, 2009). Because of increased institutional enrollment in online courses, many college students have experienced academic difficulty in online classes. The work of Willging and Johnson (2009) dwells on growth and development in the educational use of technology and has led to questions about the online mode of educational delivery. Reports
concerning successful completion of online courses are mixed. Attrition rates for classes taught online are possibly 20-50 percent higher than traditional face-to-face courses (Willging & Johnson, 2009). The purpose of this qualitative study is to understand the experiences of community college students living in rural areas who do not successfully complete their online classes.

There has been an uprising in computing and communications in the past few decades, and all research indicates that technological progress and use of information technology will continue at a fast pace. The fast increasing impact that technology has had on online classes has been closely linked and now their future, success, and fate are carefully interweaved.

The National Education Center for Education Statistics (2008) reported undergraduates attending public 2-year colleges participated in a distance education class relatively more often than those attending other types of institutions; participation in distance education also varied by undergraduate’s work obligations. Students working full time had a distance education class enrollment rate of 27 percent and a distance education degree program enrollment rate of 7 percent. Respectively, these rates were about 10 and 4 percentage points higher than both students who were not working and students who were working part time. More than one in four college students have taken at least one course online. Because of increased institutional online classes, some college students experienced academic difficulty in online courses (Allen and Seaman, 2011).

A study conducted by Armstrong (2010) asserted students who struggle in online courses typically are more likely to fail or withdraw from online classes than those in traditional classes. According to Austin (2010), “in the 1990s technology began was changing instructional delivery
and many student and academic support services in a major way” (p.27). More and more students acknowledged college as a reality due to programs generated by new technology. The impact of the Internet on society is widespread, encircling many audiences as well as higher education by offering an opportunity to move from the traditional face-to-face classroom setting into the online classroom through the creation of online courses and degree programs. Research in the impact of online learning can increase awareness of problems that have arisen about the quality of the courses, interactions, motivation, attrition, and retention at the community college level. To meet the needs of the emergent online market there is now an increased need for qualified part-time adjunct faculty (Allen & Seaman, 2013).

**Online Adjuncts**

Online courses and programs of study are being offered by more and more colleges, yet there is little research citing factors enticing faculty to teach these newly developed online courses and programs of study (McKenzie, Bennett & Waugh, 2000; Parker, 2003; Hiltz, Shea & Kim, 2007; Valdez & Anthony, 2001). Often faculty members will elect not to teach online courses if they feel they are not adequately trained (Crawford-Ferre & Wiest, 2012). According to Rice and Dawley (2009), 62 percent of online educators had no professional development training before teaching online. It is the online courses developed for enhancement of traditional programs for which the aforementioned studies show factors leading faculty to teach the traditional programs in the online setting. Colleges and universities do encourage tenured faculty to participate in the instruction of newly developed online programs and courses of study, yet additional online adjunct faculty is necessary to cover the influx of newly developed online programs of study (Bedford, 2009).
Often, adjunct faculty employed to teach online have little or no experience with online course development, instruction, or education. These faculty members are offered little support from the educational institutions. These adjuncts learn quickly that online teaching takes more time than traditional courses (Gaytan, 2009). Online adjunct faculty is frequently forced to rethink their expectations about teaching as well as the roles they play in online courses (Baran, Correia & Thompson, 2011). According to Hoyt et al. (2008), research shows adjunct faculty’s lack of integration in the college, fostered alienation, and disconnection in the community college environment.

For students to be totally submerged and engaged in every level of the educational process, the online instructor must be empowered to become models for this bold venture. Educators must provide a learning environment that enables students to become inventive thinkers, have a high command of technology, be highly effective in their communication skills, and be proficient in productivity. The instructors will be charged to become the facilitator, instead of the dictator in the learning process so as to allow the online students to grow to their potential in the digital age of the twenty-first century.

These educators must be skilled and professionally developed in instructional methods and technology and have the skill to integrate technology into the curriculum to facilitate learning so students are ready for the ever-changing global job market of today's world. Adjuncts teaching online must focus on preparing students to be lifetime learners in the digital media age. It is vital for colleges and universities to provide online adjuncts with the most current equipment and training to deliver an effective education to students in a technology infused society. There is little research on supporting adjunct faculty or adjunct online faculty (Zawaki-Richter & Vogt, 2009). The topic of supporting and developing adjunct faculty has become increasingly
important to encourage work engagement, due to the dynamic forces of the online environment and the occurrence of the professional adjunct (Bedford, 2009). Dolan (2011) suggested that online schools must improve adjuncts’ sense of job satisfaction and organizational commitment because it has a positive effect on student retention. The leading issues of concern were insufficient and infrequent communication, lack of recognition of their value to the institution, and lack of opportunities for skill development (Dolan, 2011).

When online adjunct faculty are appropriately compensated and involved in curricular professional development activities, online adjunct faculty job satisfaction and organizational commitment increases which could lead to the enhancement of student learning, retention, and program completion rates (Coalition on the Academic Workforce, 2010).

**Professional Development**

The rapidly increasing types and number of online courses at institutions of higher education is making professional development for online community college adjunct faculty a necessity to increase the quality and effectiveness of online instruction (Palloff & Pratt, 2007, 2011). Professional development for online instruction is often classified according to the domains of (a) professional development content and (b) professional development format (Elliott, Rhoads, Jackson, & Mandernach, 2015; Herman, 2012). Content of the professional development training for online instruction is wide-ranging; the addressed content could include (a) navigating the online classroom and use of online instructional tools, (b) effective online pedagogical/andragogical instructional practices, (c) theoretical approaches, and (d) specific discipline topics (e.g., critical thinking) (Elliott et al., 2015; Herman, 2012). The format of the professional development falls into three domains of (a) fully online (e.g., synchronous or asynchronous online training, or online faculty development curriculum), (b) fully face-to-face
(e.g., university-supported workshop, face-to-face mentoring), and (c) blended, which involves both online and face-to-face components (Elliott et al., 2015; Herman, 2012). It has been argued in studies (Elliott et al., 2015; Keengwe & Onchwari, 2009; Vaill & Testori, 2012) that the blended format is most effective in enhancing faculty outcomes as it provides numerous types supports for online instruction.

Few studies have examined associations between online adjunct faculty participation in professional development training on increasing and their level of job satisfaction among online adjunct faculty (Hoekstra, 2014). This is rather surprising, as research has indicated that job satisfaction is significantly lower among online adjunct faculty than full-time faculty (Coalition on the Academic Workforce, 2012; Dolan, 2011; Halcrow & Olson, 2008; Lokken & Mullins, 2014; Merriam, 2010).

One study conducted by Hoekstra (2014) with 148 online adjunct faculty examined the effects of a professional development training that was provided online and adjuncts’ job satisfaction. Hoekstra (2014) found that participation in this training did not significantly influence the adjuncts’ levels of job satisfaction. The overall equivocal results in studies from this body of research may be due in part to the operationalization of job satisfaction as well as the lack of a theoretical framework that links professional development to facets of job satisfaction.

Vaill and Testori (2012) argued that the most effective professional development approach for online faculty involved a “three-tiered approach” (p.111). This approach consisted of (a) an initial workshop that focused faculty “understanding of online education,” (p.111) (b) mentoring from an experienced online instructor, and (c) ongoing support services from instructional design and technology staff. Results from Vaill and Testori’s (2012) study showed
that 84% of online faculty members reported being better prepared to teach an online course and 76% reported that the training was valuable to their professional development. In their study, however, Vaill and Testori (2012) examined the immediate impact of the three-tiered professional development; that is, online instructors evaluated the training before they taught their first online course. It is therefore unknown if the three-tiered approach actually enhanced either instructor or student outcomes. The study by Vaill and Testori (2012) is typical of professional development evaluation research. In a review of the literature, Stes et al. (2010) found that only 10 percent of the 31 studies reviewed measured the impact of professional development for online instruction on online instructors’ perceived increases in teaching satisfaction or skills.

The body of literature on the best practices and content topics for professional development for online instruction best practices is complicated by the myriad formats of such training offered at universities and colleges (Elliott et al., 2015). Herman (2012), in her study with 10,720 faculty members of which 15% were adjunct, found that the type of format in which the professional development was implemented significantly differed by university type. For example, while 69.4% of instructors at community colleges stated that the format for the online instruction professional development was done online and supported internally by the college, only 47.6% reported receiving face-to-face mentoring (Herman, 2012). Almost one-fourth of community college instructors reported having received no professional development for online instruction (Jackson & Maxwell, 2013; Herman, 2012).

The lack of consistency with regard to the content and format of professional development for online instruction across studies is perhaps a reflection of university behavior toward such training. A review of the literature on online faculty professional development has
shown that university administrators’ efforts to improve online teaching via professional development opportunities are usually ad-hoc and irregular (Elliott et al., 2015; Lackey, 2011; Palloff & Pratt, 2007, 2011). Allen and Seaman (2010), with a sample of 2500 representatives from 2500 universities and colleges, examined the number of institutions that provided different professional development formats for online instruction. Their results showed that, of the 2500 institutions, 475 (or 19% of) institutions with online course offerings did not provide professional development for online instruction (Allen & Seaman, 2010). Of those 2025 institutions that did provide professional development, 316 (65%) provided professional development via an online internally run training course.

Due to the speed at which distance education has grown, most colleges and universities find themselves behind in understanding what it means to teach online (Orr, Williams & Pennington, 2009) and in offering quality professional development for faculty who are asked to teach online courses (Macdonald & Poniatowska, 2011; Orr et al., 2009; Shattuck et al., 2011). Recognizing the aspects of effectiveness and potential impacts of professional development will recognize areas of success and failure and will contribute to refining the content of faculty development (Al-Washahi, 2007; Elliott et al., 2015). Research has shown that focus on equipping online adjuncts with the skills and knowledge needed to teach online, along with addressing the individual needs of these adjuncts who may feel a disconnect from the traditional campus, may increase their job satisfaction and enhance their instructional skills (Elliott et al., 2015; Orr et al., 2009).

**Job Satisfaction**

The community college may find it increasingly difficult to recruit skilled adjuncts to teach if these educators are unhappy about their training. Faculty job satisfaction may have a
deciding factor in the strength of a community college. Many community colleges have large pools of adjunct employees; the job satisfaction of adjuncts can also be central to the success of the institution. As discussed by Hensel (1991) the strength of a college is contingent on its ability to attract and employ capable professoriates.

Furnham et al. (2009) proposed that satisfaction and dissatisfaction were not two opposite extremes of the same continuum, but two separated entities caused by different facets of effort. Ahmed et al. (2010) used Herzberg’s two factor theory to conclude that a significant relationship exists between motivational factors and job satisfaction. Job satisfaction is generally defined as psychological and environmental conditions that fulfill an individual’s work experiences (Mishra, 2013).

Various studies suggested the need for professional development to improve the job satisfaction for online adjunct faculty as a means to increase quality of instruction and online adjunct faculty effectiveness in the community college (Roueche, Roueche & Milliron, 1996; Paloff, & Pratt, 2007). While there is literature about best practices in online teaching, there needs to be greater understanding of how training influences online adjunct faculty’s job satisfaction and commitment (Bowers, 2013).

Organizational commitment emerged in the 1970’s and 1980’s as a key factor of the relationship between individuals and organizations (Mowday, Porter & Steers, 1982). Specialists in the field of organizational commitment agree that two complementary dimensions comprise the construct: the affective dimension and the calculative or cognitive dimension (Allen & Meyer, 1996). Mowday et al. (1979, 1982) characterized commitment as requiring a strong belief in the organization's goals and values, a readiness to apply significant effort on behalf of the institution and a desire to uphold membership in the organization. Organizational commitment is
generally defined as the strength and level of an individual’s involvement with the organization (Mowday et al., 1979). Literature does exist concerning best practices in online teaching, but there needs to be greater understanding of how training influences online adjunct faculty’s organizational commitment (Bowers, 2013). According to Mueller et al. (2013), higher education institutions should create an environment that enhances online adjunct’s effectiveness in the organization to include integration of faculty, professional development training, and communication. Institutes of higher education have seen a surge in the number of students taking advantage of online distance education. In 2004 online enrollment was recorded at 2.34 million (Allen & Seaman, 2005). In only one year this online enrollment jumped to 3.2 million by 2005 (Allen & Seaman, 2006).

The last decade has seen an increase in online classes offered at colleges and universities and online admissions is growing at a significantly faster rate than overall enrollments in higher education (Allen & Seaman, 2008; Bettinger & Long, 2010). The Sloan Consortium’s (now the Online Learning Consortium) annual survey indicated that 66 percent of institutions in the United States report an increased demand for new online courses, and 73 percent indicate increased demand for existing online offerings (Allen & Seaman, 2008). These demands are being met largely by means of the use of adjunct faculty to teach the increasing online course offerings. With this increase comes a rise in the number of faculty needed to teach these online courses. This resulted in an emergent need to provide training to the adjunct faculty who teach online (Bedford, 2009).

While there is an abundance of research on traditional online faculty training and development, the literature appears to be lacking in training and development for online adjunct faculty. There is a gap in the literature concerning professional development of online adjunct
faculty (Zawaki-Richter et al., 2009). Allen and Seaman (2010) found that online enrollment rates are expanding at much faster rates than traditional classroom enrollment growth. Precisely, since 2002, online class enrollments have increased 21 percent while growth in overall higher education is merely two percent. Allen and Seaman (2010) estimated more than 5.6 million students took at least one online course in the fall of 2009, which means that about one third of all higher education students are taking courses online. Literature indicates a need for professional development to enhance online adjunct faculty’s organizational commitment, thereby increasing quality of education and the instructor’s effectiveness in the community college (Herman, 2012).

**Summary**

While ample studies exist investigating factors that influence satisfaction and dissatisfaction for adjunct faculty, few exist that investigate the effects of professional development on online adjunct faculty’s job satisfaction and organizational commitment in the community college setting. The increase in adjunct faculty employment in the community college can be attributed to the increased popularity of online learning driven by Internet usage among college students at a staggering 93 percent of the 53 million Internet users (Weyant & Gardner, 2010). Insufficient training in distance education practices can be a barrier involved in the instruction of online courses (Schnackenberg, 2012). Although there is a sound body of research on professional development best practices for online adjunct instructors, this body of research has focused either on adjunct faculty’s perceived quality of the professional development training or the influence of the professional development for adjunct faculty on student outcomes (Datray et al., 2011; Latz & Mulvihill, 2011; McDaniel & Shaw, 2010; Puzziferro & Shelton, 2009; Shattuck et al., 2011; Tassinari, 2014; Vaill & Testori, 2012).
The community college needs competent and trained teachers to meet online student demands (Baghdadi, 2011). The community college, adjunct faculty comprises nearly 70 percent of all class instruction (National Survey of Part-time/Adjunct Faculty, 2010). Online adjunct faculty will continue to affect the level of academia success of the community college.

Throughout the course of this chapter, literature regarding online adjunct faculty’s job satisfaction and dissatisfaction was reviewed noting factors that may affect both. This literature offered suggestions as to how professional development might influence job satisfaction and job dissatisfaction of adjunct and online adjunct faculty in the community college setting. Despite the fact that there is literature about best practices in online teaching, there needs to be a better understanding of how training influences online adjunct faculty’s job satisfaction and dissatisfaction (Bowers, 2013). The substantial lack of research citing professional development of online adjunct faculty accentuates this study’s significance.
CHAPTER THREE: METHODOLOGY

The purpose of this quantitative, causal comparative study was to determine if participation in different types of online professional development programs differentially influenced motivation and hygiene job satisfaction factors of online adjunct faculty teaching at community college in a southeastern state in America. This study addressed the gap in the education and evaluation research literature on the efficacy of professional development programs in higher education on job satisfaction among online adjunct faculty. This study proposed that there would be significant post-intervention differences in levels of motivation and hygiene job satisfaction between community college, online, adjunct faculty who participated in online instruction professional development (PD) training and those who did not.

The purpose of this chapter is to review and discuss the methodology of this study. The chapter opens with a section on the proposed research design, which includes the research questions and hypotheses. The chapter continues with sections on the study participants and setting. The section that follows is a presentation of the study procedures, inclusive of both the professional development program and the data collection procedures. The data analysis is the topic of the last section of the chapter.

Design

This quantitative study utilized a causal comparative research design to examine the effects of four types of online instruction PD training (i.e., fully online, fully face-to-face, blended [online and face-to-face], and none) on online adjunct faculty’s levels of motivation and hygiene job satisfaction (Bryman, 2012; Shadish et al., 2002). The causal comparative research design was selected as the optimum design for this study as the study was not experimental, that is, participants were not randomly selected nor randomly assigned to PD training groups.
The causal comparative research design was used to determine if dependent variable outcomes significantly differed between groups identified based on “an action or event [that] has already occurred,” (Brewer & Kubn, 2010, p. 23) which was the type of PD training that participants completed within the past two years. The dependent variable outcomes in this study were the three respective online, adjunct faculty motivation and hygiene job satisfaction factors.

The experimental research design is the most effective design to limit threats to the internal validity of the study, which is the extent to which the changes in a dependent variable(s) can be said to result from the independent variable (Coryn & Hobson, 2011). However, quantitative, non-experimental research studies have threats to internal validity that should be addressed (Brewer & Kubn, 2010; Coryn & Hobson, 2011). Two of the most common and detrimental threats to the internal validity of causal comparative research studies are (a) selection bias and (b) confounding bias (Brewer & Kubn, 2010; Coryn & Hobson, 2011). Selection bias in causal comparison research refers to individuals self-selecting to participate in a study where participation is voluntary (Coryn & Hobson, 2011). The adjunct, online faculty members who volunteered to participate in this study may have distinctly differed from those who did not volunteer; for example, they may have had higher levels of job satisfaction.

The confounding threat refers to the inability to determine if differences seen in the dependent variable are truly due to the independent variable or are a result of “the effects of an [unmeasured] additional factor (or set of factors)” (Skelly, Dettori, & Brodt, 2012, p. 9). A confounding variable, often termed the “third variable,” (Skelly et al., 2012, p. 10) is both significantly associated with the dependent variable in the absence of the independent variable and with the independent variable in the absence of the dependent variable. Confounding bias is
A threat common to causal comparative research studies due to the inability when using such a design to random select and assignment participants to conditions (Skelly et al., 2012).

Attempts were made to reduce both the selection and confounding biases by conducting a one-way multivariate analysis of covariance (MANCOVA) for hypothesis testing. A one-way MANCOVA can be used to examine posttest group differences on a set of dependent variables that measure components of a larger construct or measure similar overlapping constructs (Huitema, 2011). Moreover, a one-way MANCOVA controls for covariates; that is, it removes the shared variance between potential confound variables and posttest scores to provide a more precise analysis of intervention/condition effects (Huitema, 2011).

**Research Questions**

This study, which was guided by Herzberg’s (1964) two-factor theory of job satisfaction and utilized the theoretically associated survey of Part-time Faculty Job Satisfaction Survey (P-TFJSS), extended the body of literature that has examined job satisfaction among online adjunct faculty teaching at community colleges. The independent variable in this study had four levels or conditions: no training, fully online training, fully face-to-face training, and blended training. The dependent variable of job satisfaction was assessed via motivational and hygiene constructs (three per category). This study will address the following research questions and sub-questions:

**RQ1:** Are there statistically significant differences on motivation job satisfaction (i.e., general job satisfaction, recognition, and autonomy) mean scores between online adjunct faculty who received online-only professional development, face-to-face only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?
RQ1a: Are there statistically significant differences on general job satisfaction mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

RQ1b: Are there statistically significant differences on job recognition mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

RQ1c: Are there statistically significant differences on job autonomy mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

RQ2: Are there statistically significant differences on hygiene job satisfaction (i.e., faculty support, salary, and working conditions) mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?
**RQ2a:** Are there statistically significant differences on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2b:** Are there statistically significant differences on *salary* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2c:** Are there statistically significant differences between *working conditions* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**Null Hypotheses**

This study considered the following null and alternative hypotheses for the research questions. The null and alternative hypotheses addressed differences between professional development online adjunct faculty categories with regard to the three dependent variables per motivation (general satisfaction, recognition, and autonomy) or hygiene (faculty support, salary, and work conditions) job satisfaction categories.

**H01:** There is no statistically significant difference on *general job satisfaction* mean scores between online adjunct faculty who received online-only professional development, face-
to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₁:** There is a statistically significant difference on *general job satisfaction* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₂:** There is no statistically significant difference on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁₂:** There is a statistically significant difference on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀₃:** There is no statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction
professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H\textsubscript{13}:** There is a statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member

**H\textsubscript{04}:** There is no statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H\textsubscript{14}:** There is a statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H\textsubscript{05}:** There is no statistically significant difference on *salary* mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.
H15: There is a statistically significant difference on salary mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

H06: There is no statistically significant difference between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

H16: There is a statistically significant difference between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

Participants

The final participant sample was N = 106 online, adjunct faculty members who represented the population of the approximately 200 adjunct faculty who teach online courses at a community college in a southeastern state. To be employed as online, adjunct faculty at this community college, faculty members must have met the minimum education qualifications for the specific classes taught; it is possible for faculty to teach lower-level courses in specific subjects with a bachelor’s degree if they have had prior teaching experience or have taken graduate-level courses in the subject area. While it is preferred that the faculty member has some
experience with distance education, this is not a requirement to teach online courses; thus, faculty members may show differing degrees of experience and expertise with the online teaching format. For this study, participants did have to meet certain criteria. One, they had to currently employed in good standing as an online adjunct instructor at the community college; Two, they had to have signed a contract to teach and were teaching at least one online course. Three, they must have had taught a minimum of two semesters (one school year) at the community college, indicating a commitment to teaching at community college as well as familiarity with the community college organizational culture.

A power analysis using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) for a one-way MANCOVA determined the required sample size for this study. An effect size for t-test, ANOVA, or MANOVA analyses is used to quantify the mean score difference of the dependent variable between two or more groups (Ferguson, 2009). A simplification of the effect size formula is the mean score difference between two groups divided by the overall standard deviation (Ferguson, 2009). While an effect size is often set to medium as a “general rule of thumb” as suggested by Cohen (1988, p. 12), contemporary statisticians recommend that a study’s effect size be determined “with respect to empirical benchmarks” (Hill, Bloom, Black, & Lipsey, 2008, p. 172). Based on findings from previous research that used the P-TFJSS (Hoyt, Howell, & Eggett, 2007) regarding effect sizes (Curran, Curran, Draus, & Jabro, 2014) and amount of variance explained in regression models (e.g., Cash, 2009; Hill, 2014), the effect size in this study was set at medium, Cohen’s $f^2 = 0.25$. The number of predictors was four, which included the independent variable of mode of professional development and the three covariates of gender, perceived online instruction expertise, and length of time employed as an adjunct online faculty. The number of dependent variables were three, as two MANCOVAs will be
conducted, one for each research question. Power was set to 0.80, and the significance level was set to $p < .05$.

Results from the power analysis showed that the total sample size of $N = 100$ (or $n = 25$ per professional development category) was required to achieve adequate power. A total of 100 online adjuncts were expected to be recruited for this study. Convenience sampling was used to ensure that the required sample size was achieved. Obtaining the necessary sample size of 100 participants required a 50% response rate, as there are approximately 200 online adjunct faculty members teaching at the community college under study. This response rate was slightly higher than the average response rate of 41% seen in studies on online faculty (Hamilton, 2009; Millar & Dillman, 2011).

**Setting**

The setting for this study was a community college located in a southeastern state in the United States. The community college had a population of approximately 6,000 students who are diverse in age, gender, ethnicity, and socioeconomic status. The community college offers 525 degrees, 93 diplomas, and 199 certificate programs, and provides courses on a semester schedule for fall, spring, and summer. Approximately 200 online courses are offered each semester, and online courses follow an eight-week semester schedule.

**Instrumentation**

The study survey was maintained on a password-protected, encrypted Survey Monkey® website accessible only to the investigator. The survey contained items for the demographic variables of ethnicity, highest level of education, and age, included for descriptive purposes but also as potential covariates. The independent variable of PD training type was assessed by two items on the survey. The survey also incorporated the P-TFJSS (Hoyt et al., 2007), comprised of
the three motivation job satisfaction subscales and the three hygiene job satisfaction subscales, the dependent variables of the study. The final items on the survey concerned the covariates of gender, online instruction self-efficacy, and length of time employed as an online adjunct faculty member at the community college. These variables are reviewed in the following sections.

**Demographic Variables**

The ethnicity variable was a categorical (nominal) variable, where 1 = American Indian/Alaskan Native, 2 = Asian/Asian American, 3 = Biracial/Multiracial, 4 = Black/African American, 5 = Hispanic/Latino (a), 6 = Native Hawaiian/Pacific Islander, 7 = White/Caucasian, and 8 = other. Highest level of education variable was a categorical (nominal) variable, where 1 = bachelor’s degree, 2 = bachelor’s degree plus additional certification/training, 3 = master’s degree, 3 = master’s degree plus additional certification/training, 4 = doctorate, and 5 = doctorate plus additional certification/training. Age was as computed by asking participants for their birth year then subtracting the participants’ birth year from 2015. The decision to measure age in this way was informed by results from research that demonstrated that study participants were more likely to answer a question about their birth year as compared to a question about their age (Kooji, De Lange, Jansen, Kanfer, & Dikkers, 2011; Schwall, Hedge, & Borman, 2012; Willekens, 2013).

**Independent Variable**

The independent variable in this study was level (type) of online instruction PD training, a nominal (categorical) variable. To identify the online faculty members who had received no PD training within the past two years, participants were asked, “Since the start of the 2012-2013

\[\text{as seen in chapter 4, results showed that no online adjunct faculty member identified as American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or other.}\]

\[\text{as seen in chapter 4, no online adjunct faculty member had a doctorate plus additional certification/training.}\]
school year, have you participated in and completed professional development for online instruction?” Response codes were 0 = no and 1 = yes. Participants who had not participated in any PD training were assigned to the no PD training group, coded as 0. The participants who did complete online instruction PD training were then asked to answer the question, “If so, what type of online instruction professional development was it?” The participants selected one of three choices: (a) online only PD training, coded as 1; (b) face-to-face only PD training, coded as 2; and (c) blended (i.e., combination of online and face-to-face) PD training, coded as 3. By including both questions, not only were the no PD training participants identified, but the study could have been conducted with a two-group independent variable (i.e., no PD training versus some type of PD training for online instruction) had there been too few participants in the specific PD training groups.

Covariate: Gender. Gender was a dichotomous variable coded as 1 = male and 2 = female.

Covariate: Online instruction self-efficacy. The 15-item Online Educator Self-Efficacy Scale (OESES) (Hung & Blomeyer, 2013) assessed perceived online instruction self-efficacy with regard to (a) knowledge and use of online instruction best practices, (b) skills pertaining to the implementation, facilitation, management, and assessment of an online course, (c) the ability to utilize online tools and resources, and (d) the capacity to manage online course workload demands (Hung & Blomeyer, 2013). Two items from the OESES are “I feel comfortable facilitating assignments online requiring students to submit postings and responses in discussion forums” and “I feel comfortable using web-based resources for supporting my online disciple-based teaching.” Participants answered the OESES by responding to 15 items using a Likert response scale from 1 = strongly disagree to 4 = strongly agree (Hung & Blomeyer, 2013). The
15 items are summed to create the total OESES scale score. The scale scores can range from 15 to 60 points, with a higher score denoting higher levels of online instruction self-efficacy (Hung & Blomeyer, 2013).

The 15-item OESES was derived from a confirmatory factor analysis of 38 original items created by the authors (Hung & Blomeyer, 2013). Item factor loadings were excellent, ranging from .71 to .90, and they collectively explained 47% of the variance, demonstrating sound construct validity (Hung & Blomeyer, 2013). Criterion-related validity of the OESES was supported via significant associations ($r = .73, p < .001$) with the Generalized Self-efficacy Scale (GSES) (Schwarzer & Jerusalem, 1995; Hung & Blomeyer, 2013). The Cronbach’s alpha ($\alpha$) of the OESES as reported by Hung and Blomeyer (2013) was $\alpha = .94$. The Cronbach’s alpha ($\alpha$) of the OESES was calculated in this study and is reported in Chapter Four.

**Covariate: Length of time employed as an online adjunct faculty member at the college.** The length of time employed as an online adjunct instructor, an interval variable, was assessed by the question, “How many years have you taught online courses as an adjunct instructor at this community college?”

**Dependent Variables: Motivation and Hygiene Job Satisfaction**

Six subscales, three that measured motivation job satisfaction factors and three that measured hygiene job satisfaction factors, from Hoyt et al.’s (2007) Part-time Faculty Job Satisfaction Survey (P-TFJSS) were used in this study. These six subscales were the dependent variables of the study. The three motivation job satisfaction subscales concerned (a) general job satisfaction, (b) recognition, and (c) autonomy (independence). Three hygiene job satisfaction factors assessed (a) faculty support, (b) salary, and (c) working conditions.
The response codes for the P-TFJSS items were 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = agree (Hoyt et al., 2007). Four of the subscales (measuring general job satisfaction, autonomy, salary, and work conditions) contain one item that is reverse-coded, and these items were recoded prior to computing the subscales (Hoyt et al., 2007). All subscales have four items, and scores on all subscales can range from four to 24 points. A higher score on the respective subscale indicates higher levels of the respective job satisfaction construct (Hoyt et al., 2007).

The P-TFJSS subscales were developed as a means to measure job satisfaction constructs as theorized by Herzberg (1964) (Hoyt et al., 2007). In Hoyt et al.’s (2007) initial psychometric study of the P-TFJSS, “each set of four questions (per subscale) was carefully mapped against Herzberg’s theoretical model [and] construct categories of hygiene factors and positive motivators” (p. 25). Studies assessing the factor structure of the P-TJFSS scale have shown that these subscales have consistently emerged as unique and sound factors in exploratory and confirmatory factor analyses, with factor loadings for the respective subscales ranging from .64 to .89 (Hoyt, 2012; Hoyt et al., 2007, 2008; Tomanek, 2010). P-TJFSS subscales have very good to excellent internal consistency; Cronbach’s alphas as reported in the study by Hoyt et al. (2007) are presented in Table 1. Cronbach’s alphas of the subscales were computed in this study to determine their inter-item reliability and are reported in Chapter Four.
Table 1

**Part-time Faculty Job Satisfaction Scale Subscales**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Number of Items</th>
<th>Possible Range of Scores</th>
<th>Cronbach’s Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motivation Subscales</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Job Satisfaction</td>
<td>4</td>
<td>4-24</td>
<td>.92</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4</td>
<td>4-24</td>
<td>.82</td>
</tr>
<tr>
<td>Recognition</td>
<td>4</td>
<td>4-24</td>
<td>.72</td>
</tr>
<tr>
<td><strong>Hygiene Subscales</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Support</td>
<td>4</td>
<td>4-24</td>
<td>.86</td>
</tr>
<tr>
<td>Salary</td>
<td>4</td>
<td>4-24</td>
<td>.94</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>4</td>
<td>4-24</td>
<td>.85</td>
</tr>
</tbody>
</table>

*Note. Cronbach’s alphas as reported in Hoyt et al.’s (2007) study*

**Procedures**

The researcher secured approval to conduct the research study from Liberty University’s Institutional Review Board (IRB) and from the college president of the community college by March of 2015. Once IRB approval was given, the researcher initiated the recruitment phase of the study at the ending of April of 2015. Through her role at the community college as a director, the investigator has contact information (e.g., work emails and phone numbers) for all 200 online adjunct faculty members currently on the community college roster. At the ending of April of 2015, the investigator sent an email to the 200 online adjunct faculty members that contained a comprehensive description of the study. The investigator wrote the email in accordance with ethical practices for online research studies as recommended by Sue and Ritter (2012). For example, she (a) explained why she was sending the email to the online adjunct faculty members, (b) expressed that all 200 online adjunct faculty members were receiving the email, (c) detailed the purpose and goals of the study, (d) provided information about informed consent, and (e) was frank about the length of time it would take for participants to complete the survey (Sue & Ritter, 2012).
The investigator attached the study informed consent form to the email. The informed consent form contained information about the rights of the participant as a human subject in research, with emphasis placed on maintaining participant confidentiality. The consent form included language on (a) the purpose, goals, and expectations of the study; (b) the study activities and procedures; (c) measures to maintain participant confidentiality and anonymity; (d) the right of participants to opt out of the study and the professional development program at any time without negative consequences; (e) the benefits and risks of participating in the study; and (f) the reporting of results at the aggregate and not the individual level. The investigator also included her contact information on the consent form. She ended the email by requesting that interested adjunct faculty email her so that she could send to them the Survey Monkey® online survey link. Once the faculty clicked on the survey link, they were directed to the first page of the survey that contained the informed consent form. In order to answer the survey, they had to give consent by checking the “yes” box at the bottom of the informed consent form page. They could not go to the next page of the survey if they did not click “yes.” If the online adjunct faculty members clicked “no,” they were directed to a page that had a statement saying they could not complete the survey, as they did not provide informed consent.

To increase the likelihood of participant responses, the academic dean of the community college sent to the online adjunct faculty members an email that emphasized the importance of the study and reiterated the study purpose and goals and informed consent procedures. The investigator implemented additional recruitment strategies. She presented information about the study at adjunct faculty meetings and lunches, sent reminder messages about the study through the college’s online faculty portal, and contacted by phone those online adjunct faculty members who had noted interest in participating in the study.
The participants were asked to complete the survey within a three-week time frame, from April 22, 2015-May 13, 2015. By the end of the three weeks, 148 online adjunct faculty members had clicked on the Survey Monkey® survey link and had given informed consent to participate in the study. The investigator closed the study at the end of the three weeks.

**Data Analysis**

The investigator downloaded the data into an SPSS 22.0 data file, removed the study information, and deleted the study data from the Survey Monkey® website. The cases were examined for incomplete data, missing data, and data irregularities. Any case that showed incomplete data for over 60 percent of the survey, missing not at random (MNAR) values, and/or irregular/random entries (e.g., all items had been given the same rating) were removed from the data set (Harlow, 2014; Jamshidian & Jalal, 2010). The data for the study variables were examined for data entry errors and/or irregularities and checked for outliers. If missing data were missing at random (MAR) or missing completely at random (MCAR), linear interpolation imputation, specifically regression imputation was used to replace the missing data (Cox, McIntosh, Reason, & Terenzini, 2014). Regression imputation involves computing a regression model from non-missing data to “generate a predicted value for the missing data points” (Cox et al., 2014, p. 384). Univariate outliers were identified using SPSS unusual cases function as well as variable scatterplots and box plots. Univariate outliers were winsorized (i.e., the values will be replaced with the next lowest or next highest value) (Harlow, 2014; Jamshidian & Jalal, 2010). Mahalanobis distances detected multivariate outliers. Harlow (2014) argued that a Mahalanobis distance value over 25 “is cause for concern” (p. 203) and cases equal to or exceeding this value should be removed from analyses.
Descriptive statistics were computed for study participant variables, inclusive of the covariates. Frequencies and percentages were calculated for the categorical (nominal) demographic variables of ethnicity and highest level of education; the independent variable of type of online instruction PD training; and the covariate of gender, a dichotomous variable. The mean, standard deviation, and minimum and maximum scores were computed for the interval variables of age, a demographic variable; the three motivation job satisfaction subscales and the three hygiene job satisfaction subscales, the dependent variables; and the two covariates of perceived online instruction expertise, as measured by the OESES; and length of time employed as an online adjunct faculty member at the college. To assess inter-item reliability, Cronbach’s alphas were computed for the three motivation job satisfaction subscales and the three hygiene job satisfaction subscales of the P-TFJSS (Hoyt et al., 2007) and the OESES (Hung & Blomeyer, 2013). A Cronbach’s alpha between .70 and .79 was considered good, an alpha between .80 and .89, very good, and a Cronbach’s alpha greater than .90, excellent (Bonate, 2010).

Preliminary statistical analyses were conducted prior to hypothesis testing. The first set of analyses involved the testing of covariates by conducting Spearman’s rho correlations. Spearman’s rho correlations were selected over Pearson bivariate correlations as relationships between categorical, ordinal, linear, and ratio variables can be calculated using Spearman’s rho correlations whereas Pearson bivariate correlations are limited to interval and ratio variables (Bonate, 2010). Spearman’s rho correlations were calculated between gender, perceived online instruction self-efficacy, and length of time employed as an online adjunct faculty member and the six P-TFJSS job satisfaction subscales. For comprehensiveness of covariate analyses, Spearman’s rho correlations were also calculated between the demographic variables of ethnicity, highest level of education, age, and the six P-TFJSS job satisfaction subscales.
The statistical test for hypothesis testing for this study was the one-way multivariate analysis of covariance (MANCOVA). The principal aim of the one-way MANCOVA is to test for significant differences between two or more groups on two or more dependent variables that share conceptual overlap while controlling for covariates (Bonate, 2010; Harlow, 2014; Warner, 2012). A one-way MANCOVA is preferred over numerous independent samples $t$-tests or one-way analyses of covariance (ANCOVAs) as it reduces the likelihood of committing a Type I error (i.e., a false positive result) and increases statistical power (Harlow, 2014; Warner, 2012). Tests for violations of assumptions for one-way MANCOVA were performed, and adjustments to the data and/or analysis were planned had data violated assumptions. It is important when using a MANCOVA to ensure that multicollinearity is not evident among the dependent variables (Bonate, 2010; Marsden & Torgerson, 2012). Multicollinearity was determined via a series of linear regressions, with the respective motivation or hygiene job satisfaction variables predicting one another, to calculate the variance inflation factors (VIFs) (Garson, 2012). Lack of dependent variable multicollinearity is evident if a VIF is less than 4.00 (Garson, 2012; Jamshidian & Jalal, 2010). Recommendations for dealing with dependent variable multicollinearity depend on the number of dependent variables (Cumming & Finch, 2005; Grice & Iwasaki, 2007). In the event of multicollinearity between two of three dependent variables, the dependent variable with the highest VIF should be removed from analyses or the two highly correlated variables should be combined (e.g., by calculating a factor loading) into one variable; ultimately two dependent variables would be used in analysis (Cumming & Finch, 2005). If all three dependent variables show multicollinearity, the variables should be combined and an ANOVA/ANCOVA conducted (Cumming & Finch, 2005).
Study scales (i.e., the OESES and the P-TFJSS subscales) should display normality (Harlow, 2014; Jamshidian & Jalal, 2010). Normality was tested by calculating the skewness value of each variable. A skewness value that is less than 2.00 indicates that the assumption of normality has been met (Garson, 2012; Jamshidian & Jalal, 2010). MANOVA/MANCOVA is robust against normality if cell sizes are greater than 20 (Finch, 2005; Grice & Iwasaki, 2007). If the cell sizes were smaller than 20, the variables would be transformed, with the selected transformation (e.g., loglinear, square root) determined by the direction and severity of variable skewness (Grice & Iwasaki, 2007).

Data were analyzed to determine if they meet the assumption of homogeneity of variance, that is, that the dependent variable scores show similar variance across the online adjunct faculty professional development levels/groups (Garson, 2012). Homogeneity of variance was calculated by conducting a series of Levene’s tests of homogeneity of variances; a non-significant Levene’s test indicates that this assumption has been met (Garson, 2012; Harlow, 2014). MANOVA/MANCOVA is robust against homogeneity of variances assumption violations (Finch, 2005; Grice & Iwasaki, 2007). Another assumption for MANOVA/MANCOVA is equality of covariance matrixes across independent variable levels/groups, determined by a Box’s $M$ statistic. The violation of equality of covariances is relatively common in MANOVA/MANCOVA analyses (Finch, 2005; Grice & Iwasaki, 2007). When this assumption is violated, it is recommended that the more stringent multivariate test statistic Pillai’s trace be used instead of Wilks’ $\lambda$ to determine model significance (Finch, 2005; Grice & Iwasaki, 2007).

Two one-way MANCOVAs were conducted for this study, one for each research question. The decision was made to not include all six job satisfaction subscales in one one-way
MANCOVA as two one-way MANCOVAs analyzing the three motivation and hygiene factors separately were aligned with the proposed research questions and allowed for the direct testing and examination of Herzberg’s (1964) model. Significance of the results was set at $p < .05$ (Bonate, 2010; Shadish et al., 2002). The Wilks lambda ($\lambda$), multivariate $F$, and corresponding $p$ value were reported for overall model significance (Bonate, 2010; Huitema, 2011). Univariate $F$ values and corresponding $p$ value were reported for each significant independent variable and covariate (Bonate, 2010; Huitema, 2011). The multivariate effect size was determined by $\eta^2$ (Bonate, 2010; Huitema, 2011).
CHAPTER FOUR: FINDINGS

The purpose of this quantitative, causal comparative research study was to test Herzberg’s (1964) theory of motivation by measuring the effects of four different types of professional development (PD) training for online instruction on motivation and hygiene job satisfaction factors among online adjunct faculty at a community college system located in a southeastern state in the United States. The purpose of this chapter is to provide the study results. The chapter opens with a reiteration of the research questions and hypotheses, and it continues with sections on descriptive information for the study participants and study scales. Substantial attention is given to preliminary statistical analyses, including the testing of covariates and the testing of assumptions for a one-way MANCOVA, the test used to address the research questions. Results from the one-way MANCOVAs used in hypothesis testing are then summarized. A section on additional analyses ends the chapter.

Research Questions

**RQ1:** Are there statistically significant differences on motivation job satisfaction (i.e., general job satisfaction, recognition, and autonomy) mean scores between online adjunct faculty who received online-only professional development, face-to-face only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1a:** Are there statistically significant differences on general job satisfaction mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender,
perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1b:** Are there statistically significant differences on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ1c:** Are there statistically significant differences on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2:** Are there statistically significant differences on *hygiene* job satisfaction (i.e., faculty support, salary, and working conditions) mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

**RQ2a:** Are there statistically significant differences on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?
RQ2b: Are there statistically significant differences on salary mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

RQ2c: Are there statistically significant differences between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member?

Null Hypotheses

This study considered the following null and alternative hypotheses for the research questions. The null and alternative hypotheses addressed differences between professional development online adjunct faculty categories with regard to the three dependent variables per motivation (general satisfaction, recognition, and autonomy) or hygiene (faculty support, salary, and work conditions) job satisfaction categories.

H₀₁: There is no statistically significant difference on general job satisfaction mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.
**H11:** There is a statistically significant difference on *general job satisfaction* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H02:** There is no statistically significant difference on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H12:** There is a statistically significant difference on *job recognition* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H03:** There is no statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H13:** There is a statistically significant difference on *job autonomy* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no online instruction...
professional development for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀⁴:** There is no statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁⁴:** There is a statistically significant difference on *faculty support* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₀⁵:** There is no statistically significant difference on *salary* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H₁⁵:** There is a statistically significant difference on *salary* mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.
**H06:** There is no statistically significant difference between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**H16:** There is a statistically significant difference between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face- only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

**Online Adjunct Faculty Preliminary Survey Responses**

One hundred and forty eight adjunct faculty members responded to the survey. Once the data were downloaded and reviewed, it was found that \( n = 39 \) (26.4\%) online adjunct faculty members clicked “yes” to informed consent but did not answer any of the survey questions. A review of the data furthermore revealed that three participants provided the same responses to all items on the P-TFJSS subscales. These three participants used a midpoint response style, that is, they all provided a response of three, the moderate score, to all items regardless of what the items stated (Dodd-McCue & Tartaglia, 2010). These three cases were removed from the data set. The removal of these cases resulted in usable data from 106 study participants, 71.6\% of the online adjunct faculty members who initially opened the survey link.
Descriptive Statistics

Sample Descriptive Statistics

Descriptive statistics on participants’ gender, ethnicity, and highest level of education are presented in Table 2. The sample was comprised of 70 (66.0%) female and 36 (34.0%) male online adjunct faculty members teaching at a community college system in the southeastern United States. The percentages of females and males was similar to the national percentages of female (62%) and male (38%) online adjunct faculty members, $\chi^2(1) = 0.73, p = .392$ (Coalition on the Academic Workforce, 2012).

The majority of participants ($n = 76, 71.8\%)$ identified as White/Caucasian, with 19 (17.9\%) of participants identifying as Black/African American, 5 (4.7\%) as Multiracial/Biracial, 5 (4.7\%) as Hispanic/Latino, and 1 (0.9\%) as Asian. No online adjunct faculty member identified as American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or other. Results from a chi-square test of independence showed that there was a significantly lower percentage of White/Caucasian online adjunct faculty members in this study as compared to the national percentage of 89.5\% of White/Caucasian online adjunct faculty members and a significantly higher percentage of Black/African American online adjunct faculty members in this study as compared to the national percentage of 2.7\% of Black/African American online adjunct faculty members, $\chi^2(4) = 109.19, p < .001$, but there were no other significant ethnic group differences (Coalition on the Academic Workforce, 2012).

Fourteen (13.2\%) online adjunct faculty members had a bachelor’s and 14 (13.2\%) had a bachelor’s degree plus additional certification or training. A majority (70.8\%) of participants had a master’s degree ($n = 43, 40.6\%)$ or a master’s degree plus additional certification or
training \((n = 32, 30.2\%\)). Three \((2.0\%)\) faculty members had doctorates\(^4\). No online adjunct faculty member reported having a doctorate plus additional certification/training. Results from a chi-square test of independence showed that this sample had a significantly higher percentage of participants with a bachelor’s degree than the national percentage of 4.5% of online adjunct faculty members with a bachelor’s degree. Results from a chi-square test of independence showed that this sample had a significantly higher percentage of participants with a bachelor’s degree than the national percentage of 4.5% of online adjunct faculty members with a bachelor’s degree. There were a significantly higher percentage of participants with master’s degrees, 43 (40.6%) or master’s degrees plus additional training, 32 (30.2%) in this study as compared to the national percentage of online adjunct faculty with master’s degrees or master’s degrees plus additional certification/training, 53.6% and 7.6%, respectively. Finally, this sample had a significantly lower percentage of participants with doctorates as compared to the national percentage of 15.7% of online adjunct faculty with doctorates, \(\chi^2(4) = 208.90, p < .001\) (Coalition on the Academic Workforce, 2012). The sample as a whole had lower levels of educational attainment in comparison to the national average of online adjunct faculty members.

\(^4\) To utilize the highest level of education variable in analysis, the three participants with doctorates were placed in the “master’s degree plus additional certification or training” group.
Table 2

*Descriptive Statistics: Study Participants (N = 106)*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>66.0</td>
</tr>
<tr>
<td>Male</td>
<td>36</td>
<td>34.0</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaskan Native</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>.9</td>
</tr>
<tr>
<td>Black/African American</td>
<td>19</td>
<td>17.9</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>Multiracial/Biracial</td>
<td>5</td>
<td>4.7</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific Islander</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>76</td>
<td>71.8</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Highest Level of Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>14</td>
<td>13.2</td>
</tr>
<tr>
<td>Bachelor’s degree plus training/certification</td>
<td>14</td>
<td>13.2</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>43</td>
<td>40.6</td>
</tr>
<tr>
<td>Master’s degree plus training/certification</td>
<td>32</td>
<td>30.2</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>3</td>
<td>2.8</td>
</tr>
<tr>
<td>Doctoral degree plus training/certification</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Table 3 presents descriptive data on participants’ age and number of years taught as online adjunct faculty members. The mean age of the 93 participants who gave their birth year was 46.61 years ($Md = 47.00$, $SD = 13.34$), with participants ranging in age from 22 to 77 years. Results from a one-sample $t$-test showed that participants’ mean age of 46.61 years was not significantly different from the national mean age of 46.32 years for online, adjunct faculty.

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5 Age was calculated by subtracting the participant’s birth year from 2015.
members, \( t(92) = 0.21, \ p = .833 \) (Mandernach, Register, & O’Donnell, 2015). The mean number of years taught by online adjunct faculty was 5.32 \( (Md = 4.00, \ SD = 3.94) \), with the number of years taught ranging from 1.00 to 21.00 years. Results from a one-sample \( t \)-test showed that study participants had taught online classes as adjunct faculty for a significantly longer period of time \( (M = 5.31 \text{ years}) \) than did a national sample of online adjunct faculty members, who had taught an average of 4.08 years, \( t(92) = 3.23, \ p = .002 \).
Table 3

*Participant Age and Years Taught as Online Adjunct Faculty Members*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>M</th>
<th>Md</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>93</td>
<td>46.61</td>
<td>47.00</td>
<td>13.34</td>
<td>22.00</td>
<td>77.00</td>
</tr>
<tr>
<td>Years Taught</td>
<td>105</td>
<td>5.31</td>
<td>4.00</td>
<td>3.92</td>
<td>1.00</td>
<td>21.00</td>
</tr>
</tbody>
</table>

**Online instruction PD training groups.** Each of the four online instruction PD training groups had a similar frequency/percentage of participants, as seen in Table 4. Participants reported whether they received online instruction PD training within the past two years. Twenty-five (23.6%) participants reported having attended entirely online PD training for online instruction, and 22 (20.8% of) participants attended entirely face-to-face PD training for online instruction. Thirty-four (32.1% of) participants had received blended online instruction PD training. Twenty-five (23.6% of) participants reported never having received PD training for online instruction.
Table 4

Descriptive Statistics: Study Participants (N = 106)

<table>
<thead>
<tr>
<th>PD Training Groups</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entirely Online</td>
<td>25</td>
<td>23.6</td>
</tr>
<tr>
<td>Entirely Face-to-Face</td>
<td>22</td>
<td>20.7</td>
</tr>
<tr>
<td>Blended</td>
<td>34</td>
<td>32.1</td>
</tr>
<tr>
<td>No PD Training</td>
<td>25</td>
<td>23.6</td>
</tr>
</tbody>
</table>

To determine if the PD training groups differed with regard to participants’ gender, highest level of education, and ethnicity, three chi-square tests of independence were conducted. Due to the small sample sizes for Hispanic/Latino, Multiracial/Biracial, and Asian online adjunct faculty, only Black/African American and White/Caucasian participants were included in the chi-square analysis. Results from the chi-square tests of independence showed no significant gender group, $\chi^2(3) = 6.40, p = .094$, education level, $\chi^2(9) = 14.44, p = .107$, or ethnic group, $\chi^2(3) = 4.27, p = .234$, differences across the four PD training categories.

Two one-way analyses of variance (ANOVAs) were conducted to determine if the PD training groups differed with regard to participants’ age and years of teaching as online adjunct faculty. Results from the first one-way ANOVA showed that participants did not significantly differ in age across the PD training groups, $F(3, 89) = 1.94, p = .128$. Results from the second one-way ANOVA showed that participants in the no PD training group ($n = 25$) had significantly fewer years of teaching ($M = 2.64, SD = 2.06$) than participants in the entirely face-to-face PD training group ($n = 22, M = 5.32, SD = 3.80$), participants in the blended PD training group ($n = 22, M = 5.32, SD = 3.80$), and participants in the entirely online training group ($n = 22, M = 5.32, SD = 3.80$), $F(3, 102) = 7.34, p < .001$. 
Part-time Faculty Job Satisfaction Survey (P-TFJSS; Hoyt et al., 2007): Subscale

Information and Descriptive Statistics

The three motivation job satisfaction factors and the three hygiene job satisfaction factors were measured using six subscales from Hoyt et al.’s (2007) Part-time Faculty Job Satisfaction Survey (P-TFJSS). The subscales on the P-TFJSS were specifically developed for the theoretical motivation and hygiene factors as proposed by Herzberg (1964) (Hoyt et al., 2007). Before computing the subscales, cases were examined for any missing data on the 24 P-TJSS items. A missing value analysis using SPSS 22.0 found that no cases were missing more than 5% of the data. Only 18 missing data points were found for the total 24 items. The two items that had the most missing data were on the honorarium subscale, a hygiene job satisfaction factor. One item ("I am dissatisfied with the pay I receive") had four missing data points, and one item ("I feel that I am well compensated for my online teaching") had three missing data points; 10 other items across the six subscales had one or two missing data points. Little’s MCAR test was nonsignificant, \( \chi^2(191) = 212.13, p = .141 \), indicating that the data were missing completely at random (MCAR). As data were MCAR, few data were missing, and the data set was reduced from an \( N \) of 148 to an \( N \) of 106 cases due to non-response to survey items; the missing data were replaced using linear interpolation. The specific linear interpolation method used was regression imputation, where available data were utilized in multiple linear regression analysis to “generate reasonable approximations for missing values” (Haukoos & Newgard, 2007, p. 665).

Outlier analyses showed that the autonomy subscale had five univariate outliers, the faculty support subscale had two univariate outliers, and the teaching schedule subscale had three univariate outliers. These three subscales had a \( z \)skewness value greater than 3.29, which indicated a violation of the normality assumption (Kim, 2013). A review of the cases showed that one case
accounted for three outliers (one for each subscale), and one case had two outliers, one on the autonomy subscale and one on the teaching schedule subscale. For each of these subscales, the outliers were winsorized (i.e., replaced with the next highest or lowest value) (Lien & Balakrishnan, 2005). Once the subscales were winsorized, the z-skewness values were below 3.29, indicating that the revised subscales met the assumption of normality (Kim, 2013). No case had a Mahalanobis distance value over 25, indicating the absence of multivariate outliers (Harlow, 2014).

Descriptive statistics of the P-TFJSS subscales are presented in Table 5. The motivation subscales were general job satisfaction, recognition, and autonomy, and the hygiene subscales were faculty support, salary, and teaching schedule. There were slightly higher mean scores on the hygiene subscales as compared to the motivation subscales. The autonomy and teaching schedule subscales had higher minimum scores as compared to the other subscales, which indicated that no study participants were extremely displeased with these two facets of job satisfaction. All subscales displayed good (i.e., Cronbach’s alphas from .70 to .80) to very good/excellent (i.e., Cronbach’s alphas greater than .80 and .90, respectively) inter-item reliabilities (Huitema, 2011).
Table 5

Descriptive Statistics: Part-time Faculty Job Satisfaction Survey (P-TFJSS; Hoyt et al. 2007)

Motivation and Hygiene Subscales (N = 106)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>Z skewness</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motivation Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Job Satisfaction</td>
<td>17.44</td>
<td>4.38</td>
<td>4.00</td>
<td>24.00</td>
<td>-2.04</td>
<td>.80</td>
</tr>
<tr>
<td>Recognition</td>
<td>15.13</td>
<td>6.46</td>
<td>4.00</td>
<td>24.00</td>
<td>2.42</td>
<td>.96</td>
</tr>
<tr>
<td>Autonomy</td>
<td>15.84</td>
<td>3.08</td>
<td>8.00</td>
<td>24.00</td>
<td>-1.42</td>
<td>.71</td>
</tr>
<tr>
<td><strong>Hygiene Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Support</td>
<td>16.07</td>
<td>6.65</td>
<td>4.00</td>
<td>24.00</td>
<td>2.42</td>
<td>.96</td>
</tr>
<tr>
<td>Honorarium</td>
<td>16.08</td>
<td>4.19</td>
<td>4.00</td>
<td>24.00</td>
<td>-2.83</td>
<td>.78</td>
</tr>
<tr>
<td>Teaching Schedule</td>
<td>18.75</td>
<td>3.01</td>
<td>11.00</td>
<td>24.00</td>
<td>1.38</td>
<td>.77</td>
</tr>
</tbody>
</table>

Note. Z skewness (skewness/skewness standard error) values less than 3.28 indicate that the assumption of normality has been met (Kim, 2013). For all subscales, the possible range of scores is 4.00 to 24.00 (Hoyt et al., 2007).

Descriptive statistics were calculated for the Online Educator Self-efficacy Scale (OESES) (Hung & Blomeyer, 2013), which is used as a covariate in the study (see Table 6). The OESES mean score was 46.50 (SD = 8.27). The OESES minimum score was 26.00, substantially higher than the possible lowest OESES score of 15.00. The relatively high OESES mean score and the elevated lowest score on the OESES indicated that participants had relatively high levels of online educator self-efficacy. Indeed, almost a quarter (n = 26, 24.5%) of the participants gave themselves extremely high scores between 57.00 and 60.00 points. These elevated scores did not however negatively affect normality as indicated by the z skewness value of 0.29. The OESES displayed excellent inter-item reliability, with a Cronbach’s alpha of .96.
Table 6

Descriptive Statistics: Online Educator Self-efficacy Scale (OESES; Hung & Blomeyer, 2013) (N =106)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>Z Skewness</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Educator Self-efficacy Scale</td>
<td>46.50</td>
<td>8.27</td>
<td>26.00</td>
<td>60.00</td>
<td>0.29</td>
<td>.96</td>
</tr>
</tbody>
</table>

Note. The possible range of scores on the OESES is 15.00 to 60.00 (Hung & Blomeyer, 2013).

Preliminary Analyses

Preliminary analyses were conducted prior to hypothesis testing. The first preliminary analysis involved the testing of potential covariates via Spearman’s rho correlations. Two sets of Spearman’s rho correlations were conducted, one for the motivation subscales and one for the hygiene subscales. The second preliminary analysis entailed the computation of variance inflation factors (VIFs) amongst the dependent variables of job satisfaction motivation and hygiene subscales to determine if the assumption of lack of multicollinearity among dependent variables was met (Huitema, 2011).

Spearman’s rho correlations: Motivation job satisfaction subscales. Results for the first set of Spearman’s rho correlations conducted between potential covariates and the motivation job satisfaction subscales of general job satisfaction, recognition, and autonomy are presented in Table 7. As can be seen in Table 7, few significant relationships emerged from analyses. Perceived online instructor self-efficacy was significantly associated with all three motivation job satisfaction factors: \( r_s(106) = .29, p < .001 \) for general job satisfaction, \( r_s(106) = .39, p < .001 \) for recognition job satisfaction, and \( r_s(106) = .24, p = .015 \), for autonomy job satisfaction. As perceived online instructor self-efficacy increased, so did all three motivation job satisfaction factors. Age was significantly associated with general job satisfaction, \( r_s(106) = .26, \)
As age increased, so did general job satisfaction and sense of autonomy. Due to significant associations with the motivation factors, perceived online instruction self-efficacy and age were included as covariates in the one-way multivariate analysis of covariance (MANCOVA) for hypothesis testing.
Table 7

Spearman’s Rho Correlations: Gender, Ethnicity, Age, Education, Years Taught, and Perceived Online Instructor Self-efficacy and Job Satisfaction Motivation Subscales (N = 106)

<table>
<thead>
<tr>
<th></th>
<th>General Job Satisfaction</th>
<th>Recognition</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.07</td>
<td>.05</td>
<td>.06</td>
</tr>
<tr>
<td>Ethnicitya</td>
<td>.12</td>
<td>-.07</td>
<td>-.12</td>
</tr>
<tr>
<td>Age</td>
<td>.26**</td>
<td>.14</td>
<td>.26**</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.18</td>
<td>.05</td>
<td>.18</td>
</tr>
<tr>
<td>Years Taught as Online Instructor</td>
<td>.14</td>
<td>.08</td>
<td>.07</td>
</tr>
<tr>
<td>Perceived Online Instructor Self-efficacy</td>
<td>.39***</td>
<td>.39***</td>
<td>.24*</td>
</tr>
</tbody>
</table>

Note. *p < 0.05; **p < 0.01; ***p < 0.001. aDue to small sample size, only participants who were White/Caucasian or Black/African American were included in the analysis.

Spearman’s rho correlations: Hygiene job satisfaction subscales. Results for the second set of Spearman’s rho correlations conducted between potential covariates and the hygiene job satisfaction subscales of faculty support, salary, and teaching schedule are presented in Table 8. As seen in the previous Spearman’s rho correlational analyses, few significant relationships emerged. Perceived online instructor self-efficacy was significantly associated with the hygiene job satisfaction factors of faculty support, $r_s(106) = .26, p = .006$, and teaching schedule, $r_s(106) = .24, p = .016$. As perceived online instructor self-efficacy increased, so did job satisfaction with regard to faculty support and teaching schedule. Perceived online instructor self-efficacy was thus included as the single covariate in the one-way multivariate analysis of covariance (MANCOVA) for hypothesis testing.
Table 8

*Spearman’s Rho Correlations: Gender, Ethnicity, Age, Education, Years Taught, and Perceived Online Instructor Self-efficacy and Job Satisfaction Hygiene Subscales (N = 106)*

<table>
<thead>
<tr>
<th></th>
<th>Faculty Support</th>
<th>Salary</th>
<th>Teaching Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.08</td>
<td>.04</td>
<td>.12</td>
</tr>
<tr>
<td>Ethnicitya</td>
<td>-.05</td>
<td>.08</td>
<td>.19</td>
</tr>
<tr>
<td>Age</td>
<td>.13</td>
<td>.11</td>
<td>.15</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.03</td>
<td>.13</td>
<td>.15</td>
</tr>
<tr>
<td>Years Taught as Online Instructor</td>
<td>-.01</td>
<td>.11</td>
<td>.14</td>
</tr>
<tr>
<td>Perceived Online Instructor Self-efficacy</td>
<td>.26**</td>
<td>.12</td>
<td>.24**</td>
</tr>
</tbody>
</table>

*Note. *p < 0.05; **p < 0.01; ***p < 0.001

**Testing for multicollinearity: Variance inflation factors for motivation job satisfaction subscales.** Variance inflation factors (VIFs) determined if the three motivation job satisfaction subscales showed multicollinearity. Multicollinearity refers to the considerable conceptual overlap and resultant shared variance between either independent variables or dependent variables (Alin, 2010). A VIF that is 10.00 or greater suggests that multicollinearity is evident (Alin, 2010; Field, 2013). As seen in Table 9, VIFs ranged from 1.27 to 1.80, all of which indicated a lack of multicollinearity between the motivation job satisfaction subscales.
Table 9

Variance Inflation Factors (VIFs) between Job Satisfaction Motivation Subscales (N = 106)

<table>
<thead>
<tr>
<th></th>
<th>General Job Satisfaction</th>
<th>Recognition</th>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Job Satisfaction</td>
<td>--</td>
<td>1.80</td>
<td>1.39</td>
</tr>
<tr>
<td>Recognition</td>
<td>--</td>
<td>--</td>
<td>1.27</td>
</tr>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

**Testing for multicollinearity:** Variance inflation factors for hygiene job satisfaction subscales. VIFs were computed for the hygiene job satisfaction subscales. As seen in Table 10, VIFs ranged from 1.01 to 1.22. These VIFs indicated a lack of multicollinearity between the hygiene job satisfaction subscales.
Table 10

<table>
<thead>
<tr>
<th></th>
<th>Faculty Support</th>
<th>Salary</th>
<th>Teaching Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Job Satisfaction</td>
<td>--</td>
<td>1.07</td>
<td>1.22</td>
</tr>
<tr>
<td>Recognition</td>
<td>--</td>
<td>--</td>
<td>1.01</td>
</tr>
<tr>
<td>Autonomy</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

Results

This study had two over-arching research questions, each having three sub-questions that corresponded to the three job satisfaction factors for each job satisfaction domain of motivation and hygiene. The results sections for both research questions are presented in this section of the chapter. Prior to presenting results from the one-way MANCOVAs, results from Levene’s tests for equality of variances, to test the assumption of variances, and Box’s M statistics, to test for the assumption of covariances, are presented. The one-way MANCOVA model results pertain to the null hypotheses of research questions one and two, while the bivariate results concern the sub-questions of research questions one and two. The acceptance or rejection of the research questions’ and sub-questions’ null hypotheses is then stated.

Null Hypothesis One

A one-way MANCOVA, examining the effect of PD training for online instruction on motivation job satisfaction factors, controlling for age and online instructor self-efficacy scores, was conducted to address null hypothesis one. The assumption of equality of variances for each of the dependent variables was met as determined by non-significant Levene’s $F$ statistics for general job satisfaction, $F(3, 102) = 1.54, p = .208$, recognition, $F(3, 102) = 1.94, p = .127$, and for autonomy, $F(3, 102) = 0.85, p = .471$. The equality of covariances assumption was however
violated. Covariances of the general job satisfaction, recognition, and autonomy subscales were not equivalent across the four PD training groups as evidenced by a significant Box’s $M = 37.23$, $p = .009$. The violation of equality of covariances is not uncommon and is easily addressed by using Pillai’s trace instead of Wilks $\lambda$ to test for model significance (Finch, 2005; Grice & Iwasaki, 2007).

Results for the one-way MANCOVA for research question one are presented in Table 11. The overall model for the covariate of perceived age was not significant, Pillai’s Trace = .065, $F(3,98) = 2.26, p = .087, \eta^2 = .065$. While the overall model was not significant, age was significantly associated with autonomy, $F(1,105) = 4.09, p = .046, \eta^2 = .065$. Based on the $\eta^2$ of .065, 6.5% of the variance of general job satisfaction was explained by age, a small effect size (Fritz, Morris, & Richler, 2012). The overall model for the covariate of perceived online instructor self-efficacy was significant, Pillai’s Trace = .171, $F(3,99) = 6.73, p < .001, \eta^2 = .171$, a medium effect size (Fritz et al., 2012). Higher levels of perceived online instruction self-efficacy were significantly associated with higher levels of general job satisfaction, $F(1, 105) = 12.90, p = .001, \eta^2 = .114$; recognition, $F(1, 105) = 15.85, p < .001, \eta^2 = .137$; and autonomy, $F(1, 105) = 9.48, p = .003, \eta^2 = .087$.

The overall model showed that there were no significant motivation job satisfaction differences by online instruction PD training groups, Pillai’s Trace = .140, $F(9, 300) = 1.63, p = .107, \eta^2 = .047$. The lack of significant bivariate results confirmed the lack of model significance. Participants in the four PD training for online instruction groups did not significantly differ from one another on the motivation factors of general job satisfaction, recognition, and autonomy.
Table 11

One-way MANCOVA: Professional Development Online Instruction Training Group and Motivation Job Satisfaction Subscales, Controlling for Age and Perceived Online Instructor Self-efficacy (N = 106)

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>General Job Satisfaction</td>
<td>1.34</td>
<td>1, 105</td>
<td>.250</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td>Recognition</td>
<td>0.01</td>
<td>1, 105</td>
<td>.911</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td>4.09</td>
<td>1, 105</td>
<td>.046</td>
<td>.039</td>
</tr>
<tr>
<td>Perceived Online</td>
<td>General Job Satisfaction</td>
<td>12.90</td>
<td>1, 105</td>
<td>.001</td>
<td>.114</td>
</tr>
<tr>
<td>Instructor Self-efficacy</td>
<td>Recognition</td>
<td>15.85</td>
<td>1, 105</td>
<td>&lt;.001</td>
<td>.137</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td>9.48</td>
<td>1, 105</td>
<td>.003</td>
<td>.087</td>
</tr>
<tr>
<td>Professional</td>
<td>General Job Satisfaction</td>
<td>2.18</td>
<td>3, 105</td>
<td>.095</td>
<td>.061</td>
</tr>
<tr>
<td>Development Online</td>
<td>Recognition</td>
<td>1.25</td>
<td>3, 105</td>
<td>.295</td>
<td>.036</td>
</tr>
<tr>
<td>Instruction Training</td>
<td>Autonomy</td>
<td>1.37</td>
<td>3, 105</td>
<td>.258</td>
<td>.039</td>
</tr>
</tbody>
</table>

Note. Significant results italicized.

Due to the lack of significant individual effects of online instruction PD training type on general job satisfaction, $F(1, 105) = 2.18, p = .095$, the null hypothesis was retained for research question 1a. Due to the lack of significant individual effects of online instruction PD training type on recognition, $F(1, 105) = 1.25, p = .295$, the null hypothesis was retained for research question 1b. Due to the lack of significant individual effects of online instruction PD training type on autonomy, $F(1, 105) = 1.37, p = .258$, the null hypothesis was retained for research question 1c.

Null Hypothesis Two

A one-way MANCOVA, examining the effects of PD training for online instruction groups on hygiene job satisfaction factors, controlling for online instructor self-efficacy scores,
was conducted to address the null hypotheses for the second research question. The equality of variances assumption was met based on non-significant Levene’s $F$ statistics for faculty support, $F(3, 102) = 2.23, p = .090$; salary, $F(3, 102) = 2.37, p = .075$; and for teaching schedule, $F(3, 102) = 1.44, p = .235$. The covariances of the three hygiene subscales of faculty support, salary, and teaching schedule were not equivalent across the four PD training for online instruction groups, as evidenced by a significant Box’s $M = 48.86, p = .001$, and thus Pillai’s trace was used to determine model significance.

Results for the one-way MANCOVA are presented in Table 12. The overall model for the covariate of perceived online instruction self-efficacy on hygiene factors was significant, Pillai’s Trace = .134, $F(3,99) = 5.09, p = .003, \eta^2 = .115$, a medium effect size (Fritz et al., 2012). A review of bivariate results showed that the model significance was driven by significant results for the hygiene factors of faculty support and teaching schedule. Online instruction self-efficacy was significantly associated with the hygiene factor of faculty support, $F(1, 105) = 8.25, p = .005, \eta^2 = .075$, a small-to-medium effect size. Online instruction self-efficacy was also significantly associated with hygiene factor of teaching schedule, $F(1, 105) = 4.20, p = .043, \eta^2 = .040$, a small effect size.

The overall model for the PD training on hygiene job satisfaction factors, examining job satisfaction hygiene factor differences by PD training group, was also significant, Pillai’s Trace = .245, $F(9, 303) = 2.99, p = .002, \eta^2 = .184$, a medium effect size (Fritz et al., 2012). Bivariate results showed that faculty support significantly differed by PD training group, $F(3, 105) = 3.08, p = .031, \eta^2 = .084$. Based on the $\eta^2$ of .084, a small-to-medium effect size, 8.4% of the variance in faculty support was explained by type of PD training. A Tukey post hoc test determined that participants in the entirely online PD training group had a significantly lower mean faculty
support score ($M = 13.24, SD = 7.28$) than did participants in the blended PD training group ($M = 18.73, SD = 6.07$). However, participants in the entirely online PD training group did not significantly differ from participants in the face-to-face only PD training group ($M = 15.64, SD = 6.84$) or from participants with no PD training ($M = 15.68, SD = 5.52$) regarding faculty support.

Results also showed significance teaching schedule differences by PD training group, $F(3, 105) = 3.72, p = .014, \eta^2 = .100$, a medium effect size (Fritz et al., 2012). Based on the $\eta^2$ of .100, 10.0% of the variance in teaching schedule was explained by type of PD training. A Tukey post hoc test determined that participants who had not received PD training for online instruction had a significantly lower mean teaching schedule score ($M = 16.62, SD = 4.14$) than did participants in the entirely online PD training group ($M = 19.64, SD = 3.49$), participants the entirely face-to-face PD training group ($M = 18.77, SD = 4.50$), and participants in the blended PD training group ($M = 16.62, SD = 4.13$).
Table 12

**MANCOVA: Professional Development Online Instruction Training Category and Hygiene Job Satisfaction Subscales, Controlling for Perceived Online Instructor Self-efficacy (N = 106)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Online Instructor Self-efficacy</td>
<td>Faculty Support</td>
<td>8.25</td>
<td>1, 105</td>
<td>.005</td>
<td>.075</td>
</tr>
<tr>
<td></td>
<td>Salary</td>
<td>0.05</td>
<td>1, 105</td>
<td>.823</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Teaching Schedule</td>
<td>4.20</td>
<td>1, 105</td>
<td>.043</td>
<td>.040</td>
</tr>
<tr>
<td>Professional Development Online Instruction Training Category</td>
<td>Faculty Support</td>
<td>3.08</td>
<td>3, 105</td>
<td>.031</td>
<td>.084</td>
</tr>
<tr>
<td></td>
<td>Salary</td>
<td>2.35</td>
<td>3, 105</td>
<td>.077</td>
<td>.065</td>
</tr>
<tr>
<td></td>
<td>Teaching Schedule</td>
<td>3.72</td>
<td>3, 105</td>
<td>.014</td>
<td>.100</td>
</tr>
</tbody>
</table>

*Note*. Significant results italicized.

Due to significant effects of type of PD training type on faculty support, $F(3, 105) = 3.08$, $p = .031$, the null hypothesis was rejected for research question 2a. Due to the lack of significant effects of type of PD training type on salary, $F(1, 105) = 2.35, p = .077$, the null hypothesis was retained for research question 2b. Due to significant effects of type of PD training type on teaching schedule, $F(1, 105) = 3.72, p = .014$, the null hypothesis was retained for research question 2c.

**Additional Analyses**

Perceived online instruction self-efficacy emerged as a significant variable in the one-way MANCOVA as a covariate. It was therefore relevant to determine if perceived online instruction self-efficacy emerged as a significant dependent variable with regard to type of PD training. To determine if any covariates needed to be included in analysis, Spearman’s rho correlations were conducted between online instruction self-efficacy and demographic and instructor variables, the results of which are presented in Table 13. The only significant
association was found between number of years taught and perceived online instruction self-efficacy, $r_s(106) = .26, p = .007$. As the number of years that online adjunct faculty taught, so did their level of online instruction self-efficacy. Number of years taught was included in the analyses, a one-way analysis of covariance (ANCOVA), to examine PD training effects on perceived online instruction self-efficacy.
Table 13

Spearman’s Rho Correlations: Gender, Ethnicity, Age, Education, Years Taught, and Perceived Online Instructor Self-efficacy and Perceived Online Instruction Self-Efficacy (N = 106)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Online Instruction Self-efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.03</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>-.02</td>
</tr>
<tr>
<td>Age</td>
<td>.14</td>
</tr>
<tr>
<td>Highest Level of Education</td>
<td>.06</td>
</tr>
<tr>
<td>Years Taught as Online Instructor</td>
<td>.26**</td>
</tr>
</tbody>
</table>

Note. **p < 0.01

Results from the one-way ANCOVA are presented in Table 14 and Figure 2. Years taught as an online instructor was not significantly associated with perceived online instruction self-efficacy, $F(1, 105) = 2.82, p = .096$. Type of PD training was significantly associated with perceived online instruction self-efficacy, $F(3, 105) = 3.86, p = .012$. A Tukey post hoc test determined that online faculty who received no PD training ($M = 41.31, SD = 5.82$) had a significantly lower perceived online instruction self-efficacy mean score than did online faculty who participated in a blended PD training for online instruction ($M = 49.67, SD = 7.72$), online faculty who participated in an entirely online PD training ($M = 46.96, SD = 9.41$), and online faculty who participated in an entirely face-to-face PD training ($M = 46.54, SD = 7.48$).
Table 14

**ANCOVA: Professional Development Online Instruction Training Category and Perceived Online Instruction Self-efficacy, Controlling for Number of Years Taught (N = 106)**

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>Df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Taught as Online Instructor</td>
<td>2.82</td>
<td>3.86</td>
<td>1, 105</td>
<td>.096</td>
<td></td>
</tr>
<tr>
<td><strong>Type of PD Training</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entirely Online</td>
<td>46.96</td>
<td>9.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entirely Face-to-Face</td>
<td>46.54</td>
<td>7.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blended</td>
<td>49.67</td>
<td>7.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Training(^a)</td>
<td>41.31</td>
<td>5.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. Significant results italicized. \(^a\) Participants in the no PD training group had significantly lower levels of online instruction self-efficacy as compared to participants in the other three PD training groups.*
Figure 2. Type of PD training and perceived online instruction self-efficacy scores
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

The purpose of this quantitative, causal comparative research study, conducted with 106 online adjunct faculty members (66% female, 71.6% White/Caucasian) teaching at a community college system located in a southeastern state in United States, was to determine if motivation and hygiene job satisfaction factors, based on Herzberg’s (1964) two-factor theory, significantly differed according to the type of professional development (PD) training for online instruction in which the faculty participated. The four types of PD for online instruction were (a) fully online PD training, (b) fully face-to-face PD training, (c) blended PD training, and (d) no PD training. The dependent variables of motivation and hygiene job satisfaction factors were assessed using subscales from the Part-time Faculty Job Satisfaction Survey (P-TFJSS), which was specifically developed for Herzberg’s (1964) two-factor theory of job satisfaction (Hoyt et al., 2007).

This chapter is a comprehensive overview of study results from the two one-way MANCOVAs, controlling for faculty member age and perceived online instructor self-efficacy that were conducted for hypothesis testing. The first section of the chapter is dedicated to review and explication of study results, structured according to the study’s research hypotheses. Results are discussed with regard to the two overarching research questions on the proposed differences across the four PD training for online instruction groups and motivation and hygiene factors of job satisfaction. The conclusion section then provides an overall interpretation of study findings. The following implications section considers the contributions of the study to the existing body of literature faculty on PD training for online adjunct as well as Herzberg’s (1964) two-factor theory of job satisfaction. Limitations of the study are then reviewed, as are recommendations for future research, which completes the chapter.
Research Question 1: Hypotheses and Discussion

The first set of research questions inquired as to whether there were statistically
significant differences on motivation job satisfaction (i.e., general job satisfaction, recognition,
and autonomy) mean scores between online, adjunct faculty who received online-only
professional development, face-to-face only professional development, blended professional
development, or no online instruction professional development for online instruction. The null
hypotheses or the first research questions were:

**H₀₁:** There is no significant difference on general job satisfaction mean scores between
online adjunct faculty who received online-only professional development, face-to-face-only
professional development, blended professional development, or no online instruction
professional development for online instruction.

**H₀₂:** There is no statistically significant difference on job recognition mean scores
between online adjunct faculty who received online-only professional development, face-to-face-only
professional development, blended professional development, or no online instruction
professional development for online instruction.

**H₀₃:** There is no statistically significant difference on job autonomy mean scores between
online adjunct faculty who received online-only professional development, face-to-face-only
professional development, blended professional development, or no online instruction
professional development for online instruction.

Results from the one-way MANCOVA showed that the motivation factors of general job
satisfaction, recognition, and autonomy did not significantly differ across adjunct faculty
professional development groups. These results did not support the guiding conceptual
framework, Herzberg's (1964) two-factor model of motivation. Herzberg (1964) posited in his
theory that certain work-based factors are associated with job satisfaction – which he called motivators – while other work-based factors are associated with job dissatisfaction, which he termed hygiene factors. The lack of significant differences in motivators across professional development groups suggested that the type of training the online adjunct faculty members received did little to influence their job satisfaction.

Of the three studies that aligned with this study (Boord, 2010; Hoekstra, 2014; Hoyt, 2012), Boord (2010) and Hoyt (2012) utilized Herzberg’s (1964) two-factor model. Results from this study aligned with Boord’s (2010) study, who also found no significance with regard to institutional support for PD training and motivation job satisfaction among adjunct faculty teaching at a university in Iowa. Hoyt (2012) did find that two motivation factors, work preference and collaborative research, did explain 45% of the variance of job satisfaction among online adjunct faculty members. However, work preference and collaborative research may have more closely aligned to faculty support, a hygiene factor.

The results from this study with regard to general job satisfaction also aligned with results found in the study by Hoekstra (2014). Hoekstra (2014) measured online professional development as both a dichotomous and continuous variable. That is, online adjunct faculty members were asked if they had participated in an online professional development, responding with a yes or no; and of those adjunct faculty members who responded yes, they were asked the number of online modules in which they participated (Hoekstra, 2014). General job satisfaction did not significantly differ between adjunct faculty who did or did not participate in online professional development training, nor did the number of online modules in which the adjunct faculty members participate significantly relate to their general job satisfaction (Hoekstra, 2014). Hoekstra (2014) did acknowledge that one of the limitations of his study was that comparisons in
job satisfaction were not made across adjunct faculty who participated in other professional development training options such as face-to-face professional development, which this study did.

Research Question 2: Hypotheses and Discussion

The second set of research questions concerned if there were statistically significant differences on hygiene job satisfaction (i.e., faculty support, salary, working conditions) mean scores between online adjunct faculty who received online-only professional development, face-to-face only professional development, blended professional development, or no online instruction professional development for online instruction. The null hypotheses or the second set research questions were:

\( H_04: \) There is no statistically significant difference on faculty support mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

\( H_05: \) There is no statistically significant difference on salary mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

\( H_06: \) There is no statistically significant difference between working conditions mean scores between online adjunct faculty who received online-only professional development, face-to-face-only professional development, blended professional development, or no professional
development for online instruction for online instruction, while controlling for gender, perceived online instruction expertise, and length of time employed as an online adjunct faculty member.

Results from the one-way MANCOVA showed significant results with regard to hygiene job satisfaction factors of faculty support. A Tukey post hoc test determined that participants in the entirely online PD training group had a significantly lower mean faculty support score than did participants in the blended PD training group. However, participants in the entirely online PD training group did not significantly differ from participants in the face-to-face only PD training group or from participants with no PD training regarding faculty support. Results from the one-way MANCOVA also showed significance with regard to type of PD training and teaching schedule. A Tukey post hoc test determined that participants who had not received PD training for online instruction had a significantly lower mean teaching schedule score than did participants in the entirely online PD training group, participants the entirely face-to-face PD training group, and participants in the blended PD training group.

These results provided partial support for Herzberg's motivation-hygiene theory of job satisfaction. As PD training differences emerged with regard to the hygiene factors of faculty support and teaching schedule, it could be argued that online instruction professional development can reduce job dissatisfaction among adjunct faculty who teach online (Stello, 2011). These results suggested that professional development opportunities may play more of a role in influencing adjunct faculty’s job dissatisfaction, as hygiene factors and not motivation factors were influenced by participation in PD training.

In this study, online adjunct faculty participating in online-only or no professional development experienced the highest levels of job dissatisfaction and online adjunct faculty participating in blended training the lowest levels. Results suggest that adjunct faculty members
who participated in a blended professional development training program may receive more support from full-time faculty members than adjunct faculty members who participated in an online-only professional development training program. This result aligned with the finding in Hoyt’s (2012) study, who found that adjunct instructors who reported higher levels of institutional support for professional development also reported higher levels of positive relationships with both part-time and full-time faculty.

Hoyt et al. (2008) noted that adjunct faculty who teach online may experience alienation and disconnection from the community college environment. Dolan (2011), who conducted a qualitative study on job satisfaction among adjunct faculty teaching at a Midwestern university, found that feeling disconnected and lacking a sense of belonging to other faculty members and the university as a whole contributed to their job dissatisfaction. The significant finding concerning perceived faculty support and decreased job dissatisfaction suggests that a sense of integration with other community college instructors may be enhanced for online adjunct faculty by participating in a blended professional development training program (Mueller et al., 2013). While this study did not inquire as to the components and activities of the blended professional development training program, it may be that such training involves full-time faculty members of the community college system as trainers or facilitators. This result also supports studies conducted by Elliott et al. (2015), Keengwe and Onchwari (2009) and Vaill and Testori (2012) with full-time faculty, all of whom argued that a blended format was most effective in enhancing faculty outcomes as it provides numerous types supports for online instruction.

Results from this study furthermore showed that online adjunct faculty who did not receive any professional development reported the highest levels of job dissatisfaction with regard to teaching schedule. Hoyt (2012) found that satisfaction with teaching schedules was
significantly associated with increased levels of job satisfaction among adjunct faculty. Mueller et al. (2013) argued that higher education institutions should create an environment that enhances online adjunct’s effectiveness in the organization to include integration of faculty and communication. Results from this study suggested that adjunct faculty may benefit by making an effort themselves to become more integrated with the community college environment.

**Conclusions**

Studies on the effects of professional development on online adjunct faculty members’ job satisfaction (Boord, 2010; Hoekstra, 2014; Hoyt, 2012) have strengths and limitations. One strength of this body of literature was that the studies (Boord, 2010; Hoyt, 2012), including this study, have utilized Herzberg’s (1964) two-factor motivation model as a guiding theory. As a result of the consistent use of Herzberg’s (1964) two-factor motivation model, it can be argued that professional development opportunities, especially blended PD, may play more of a role in online adjunct faculty members’ job dissatisfaction than job satisfaction, as hygiene more so than motivation factors were associated with PD training (Hoekstra, 2014; Hoyt, 2012).

Online instruction self-efficacy was included in this study as a covariate, and yet results from covariate and *post hoc* analyses on this construct provided highly relevant information with regard to both job satisfaction and professional development. Online instruction self-efficacy was significantly associated with all three motivation factors of general job satisfaction, recognition, autonomy, and the two hygiene factors of faculty support and teaching schedule. In fact, age was the only other variable significantly associated with general job satisfaction and autonomy, and online instruction self-efficacy was the only significant variable associated with the hygiene factors. Online adjunct faculty gender, ethnicity, age, highest level of education, and years taught as an online instructor showed no significant associations with the hygiene factors. These same
variables were not significantly associated with online instruction self-efficacy; that is, adjunct instructors’ perceived self-efficacy for teaching online was not significantly influenced by their gender, ethnicity, age, or highest level of education. Online instruction self-efficacy was furthermore not significantly associated with the number of years that the instructors taught online courses. Indeed, the significant result that emerged from the post hoc analysis was that online adjunct faculty who participated in all three modes of PD were associated with self-efficacy scores significantly higher than the no training group, and of these three, blended was highest. In short, any professional training appeared to result in self-efficacy scores significantly higher than no training.

A few studies have documented strong associations between online instructor self-efficacy and numerous beneficial teaching and student engagement and academic outcomes (Horvitz & Beach, 2011; Horvitz, Beach, Anderson, & Xia, 2014; Singh, de Grave, Ganjiwale, Supe, Burdick, & van der Vleuten, 2013; Vaill & Testori, 2012). An emerging body of literature (Horvitz & Beach, 2011; Horvitz et al., 2014; Jackson, Stebleton, & Laanan, 2013; Reilly, Vandenhouten, Gallagher-Lepak, & Ralston-Berg, 2012) has supported the argument that comprehensive blended professional development training is most beneficial in increasing online adjunct instructors’ self-efficacy. These studies have suggested that online faculty self-efficacy is most enhanced when they participate in blended PD that involves full-time faculty as mentors of adjunct faculty and provides extensive training on online instruction technology and teaching tools with ongoing support (Horvitz & Beach, 2011; Horvitz et al., 2014; Singh et al., 2013; Vaill & Restori, 2012). This study has advanced the literature on instruction self-efficacy. Results have suggested that participation in blended PD may result in profound outcomes concerning online instruction self-efficacy – more so than the number of years teaching online
classes. Findings furthermore suggest that blended PD may influence both motivators and hygiene factors indirectly through the development of online instruction self-efficacy.

**Implications**

This study has implications for community college administrators with regard to the development and implementation of professional development for online adjunct instructors. If professional development for online instruction is offered to adjunct faculty, it is usually done in an online-only format at community colleges (Herman, 2012). Online-only professional development may, however, limit adjunct faculty’s exposure to and integration with the “community” of the community college. Isolation from full-time faculty and other college personnel may negatively impact online adjunct instructors’ sense of commitment to the community college and its students. In contrast, the community college may most benefit by providing to its online adjunct instructors blended professional development opportunities, especially those that involve full-time faculty mentoring experiences and include activities that build online instructors’ technology and online pedagogical skills (Elliott et al., 2015). Blended training, while having more up-front costs, may result in numerous long-term benefits for the adjunct online community college instructors and students.

**Limitations**

This study had some limitations. While 148 online adjunct faculty members at the community college clicked on the online study survey link, 39 participants did not answer any of the survey questions and an additional 3 participants had unusable data due to providing the same response (i.e., three) on the P-TFJSS items. This was a substantial loss of study participants. Moreover, that 39 online adjunct instructors chose not to even complete the relatively short survey was suggestive that a substantial minority of adjunct faculty felt that their
opinions did not matter and/or were disconnected from the community college. Of the 106 adjunct faculty whose data was useable, the majority were female and Caucasian. The opinions of male and ethnic minority adjunct faculty members may not have been truly represented; however, this sample did have a significantly higher percentage of Black/African American online adjunct instructors as compared to the national percentage. Few studies on online adjunct faculty and job satisfaction have examined ethnic group differences; results from Tomanek (2010), however, showed no significant differences between Black/African American and White/Caucasian online adjunct faculty regarding job satisfaction.

Participants may have been influenced by a social desirability bias when responding to the online instruction self-efficacy scale; almost a quarter of online adjunct faculty reported extremely high levels of instruction self-efficacy. The lower levels of education as compared to the national average may have contributed to the higher reports of self-efficacy (Morris & Usher, 2011). Finally, this study was conducted with one group of adjunct online instructors teaching at one community college in a southeastern state in the United States. Results from this study cannot be generalized to adjunct faculty teaching traditional or blended courses at community colleges, online adjunct faculty teaching at four-year institutions of higher education, or online adjunct faculty teaching at community colleges in different geographical locations in the United States.

Recommendations for Future Research

While this study addressed some gaps in the existing literature on professional development and job satisfaction among online adjunct faculty members, gaps remain. The existing body of literature on the effects of professional development on motivation and hygiene job satisfaction factors remains limited; only a handful of studies have been conducted on these
topics. Additional research is needed to develop a more coherent understanding as to whether Herzberg’s (1964) two-factor model of motivation is applicable and relevant to online adjunct faculty. As community colleges are increasingly offering online courses, there remains a need for online instruction professional development evaluation studies. This study was the first to examine if the type of professional development in which an online adjunct faculty member participated had any effect of his or her motivation and hygiene job satisfaction. While there is literature about best practices in online teaching, there needs to be greater understanding of how training influences online adjunct faculty’s job satisfaction (Bowers, 2013).

Instruction self-efficacy has received extensive empirical attention on the elementary and secondary school level (Klassen & Usher, 2010), but research is lacking instructional self-efficacy at the higher education level, especially among online university instructors. A seminal, qualitative study by Morris and Usher (2011) highlighted the importance that mastery and vicarious experiences regarding pedagogical skills played in increasing university professors’ instructional self-efficacy. Studies that examine the influence of professional development on online adjunct faculty members’ instructional self-efficacy would greatly contribute to the existing empirical work on this topic. This study suggested mediation effects; that is, participation in blended professional development may have led to enhanced online instruction self-efficacy, which in turn may have led to increased levels of motivation and hygiene job satisfaction. Studies that examine mediation and moderation effects resulting from professional development may enhance the understanding of organizational and personal factors that are influenced by and interact with professional development training to impact job satisfaction among online adjunct faculty. Finally, longitudinal studies that examine if benefits from
professional development are sustained long-term among online adjunct faculty would be beneficial.
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Opportunities in Research, Policy, and Practice, University of Minnesota Department of Organizational Leadership, Policy and Development, Minneapolis, MN.


<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Using an online classroom platform.</td>
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<tr>
<td>2. Using discussion forums as part of my online classroom.</td>
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<tr>
<td>3. Explaining to new online instructors how to address the workload</td>
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<tr>
<td>4. Identifying and avoiding issues related to digital copyright,</td>
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<tr>
<td>5. Supporting my students to be more selective about internet</td>
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<tr>
<td>6. Using web-based resources to use in my online classroom.</td>
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<tr>
<td>7. Explaining to new online instructors why prompt instructor</td>
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<tr>
<td>8. Using facilitation techniques that support student interaction</td>
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<tr>
<td>9. Facilitating online assignments, such as requiring students to</td>
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<tr>
<td>10. Identifying threats that can potentially put my online students</td>
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<tr>
<td>11. Successfully managing the workload demands of teaching online</td>
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<td>12. Planning for typical instructional problems affecting online</td>
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<tr>
<td>13. Using facilitation strategies useful for maintaining a</td>
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<tr>
<td>14. Describing traits of successful online learners.</td>
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<tr>
<td>15. Describing assessment strategies suitable for assuring student</td>
<td></td>
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</tr>
</tbody>
</table>
### Dimensions of Part-Time Faculty Job Satisfaction

**Directions:** Read each item and rate it using the following scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree.

<table>
<thead>
<tr>
<th>Item</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am completely satisfied with my job teaching courses as a part-time faculty.</td>
<td></td>
</tr>
<tr>
<td>2. Based on my experience teaching as a part-time faculty, I would highly recommend the job to others.</td>
<td></td>
</tr>
<tr>
<td>3. Considering everything, I have an excellent job as a part-time faculty teaching courses.</td>
<td></td>
</tr>
<tr>
<td>4. I am dissatisfied with aspects of my job as a part-time faculty.</td>
<td></td>
</tr>
<tr>
<td>5. I am often thanked for teaching here.</td>
<td></td>
</tr>
<tr>
<td>6. I feel well respected as a part-time faculty.</td>
<td></td>
</tr>
<tr>
<td>7. Part-time faculty are recognized for their teaching contribution.</td>
<td></td>
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<tr>
<td>8. A part-time faculty job is a valued position.</td>
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<tr>
<td>9. I really enjoy teaching courses.</td>
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<tr>
<td>10. I almost always look forward to teaching classes.</td>
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<tr>
<td>11. If I had the choice, I would rather teach than do other types of work.</td>
<td></td>
</tr>
<tr>
<td>12. I would prefer to do work other than teaching.</td>
<td></td>
</tr>
<tr>
<td>13. I am completely satisfied with the level of autonomy that I have in teaching my courses.</td>
<td></td>
</tr>
<tr>
<td>14. I have a lot of freedom to develop and modify course content to meet the needs of my students.</td>
<td></td>
</tr>
<tr>
<td>15. I have a satisfactory level of autonomy to select material and texts for my courses.</td>
<td></td>
</tr>
<tr>
<td>16. I would like more freedom to determine the content, materials, and texts for my courses.</td>
<td></td>
</tr>
<tr>
<td>17. The classroom space where I teach classes is excellent.</td>
<td></td>
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<tr>
<td>18. The classrooms in which I teach are very well maintained and clean.</td>
<td></td>
</tr>
<tr>
<td>19. The classrooms in which I teach have up-to-date audiovisual equipment, computer connections, and equipment.</td>
<td></td>
</tr>
<tr>
<td>20. Space for my classrooms is well designed to meet my teaching and my students' learning needs.</td>
<td></td>
</tr>
<tr>
<td>21. I receive very helpful advice and support from academic department faculty to improve my teaching.</td>
<td></td>
</tr>
<tr>
<td>22. Faculty in my academic department(s) are always available and accessible to me when I need assistance.</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Question</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>149</td>
<td>Full-time faculty in my academic department(s) take a sincere interest</td>
</tr>
<tr>
<td></td>
<td>in my success as a teacher.</td>
</tr>
<tr>
<td>23.</td>
<td>I feel very comfortable requesting assistance from academic department</td>
</tr>
<tr>
<td></td>
<td>faculty when I have questions about my courses or students.</td>
</tr>
<tr>
<td>24.</td>
<td>The payment I receive for teaching classes is adequate.</td>
</tr>
<tr>
<td>25.</td>
<td>I feel that I am well compensated for my teaching.</td>
</tr>
<tr>
<td>26.</td>
<td>I am paid fairly for the amount of work I do to teach courses.</td>
</tr>
<tr>
<td>27.</td>
<td>I am dissatisfied with the pay I receive for teaching courses.</td>
</tr>
<tr>
<td>28.</td>
<td>The quality and caliber of students in my classes.</td>
</tr>
<tr>
<td>29.</td>
<td>Students in my classes are very well prepared academically to take my</td>
</tr>
<tr>
<td></td>
<td>courses.</td>
</tr>
<tr>
<td>30.</td>
<td>Students here are highly engaged and very interested in their academic</td>
</tr>
<tr>
<td></td>
<td>work.</td>
</tr>
<tr>
<td>31.</td>
<td>Students lack motivation or the academic skills to succeed in my courses.</td>
</tr>
<tr>
<td>32.</td>
<td>The times scheduled for my classes have been convenient to my schedule.</td>
</tr>
<tr>
<td>33.</td>
<td>I have been very satisfied with my teaching schedule.</td>
</tr>
<tr>
<td>34.</td>
<td>I have been very satisfied with my teaching schedule.</td>
</tr>
<tr>
<td>35.</td>
<td>The times that I teach my classes work well with my personal or other</td>
</tr>
<tr>
<td></td>
<td>family commitments.</td>
</tr>
<tr>
<td>36.</td>
<td>I have to teach at times that are inconvenient for me.</td>
</tr>
</tbody>
</table>

(Hoyt, Howell, & Eggett, 2007).

Questions used on the electronic survey

Scoring

The Dimensions of Part-Time Faculty Job Satisfaction contains both positive and negative items. The negative items are items numbered 4, 12, 16, 28, 32, and 36. For these negative items, assign the following values: 6 = Strongly Disagree, 5 = Disagree, 4 = Somewhat Disagree, 3 = Somewhat Agree, 2 = Agree, 1 = Strongly Agree. Scores for each of the 8 dimensions and for the separate measure of overall job satisfaction are calculated by summing the value of the four items and then dividing the total by 4 (the number of questions for each subscale). The 8 dimensions can be correlated with overall job satisfaction or be used to predict overall job satisfaction as a dependent variable (Hoyt, Howell, & Eggett, 2007).
APPENDIX C: IRB Consent Form

The Liberty University Institutional Review Board has approved this document for use from 4/2/15 to -- Protocol # 2163.040215

CONSENT FORM
The Effects of Professional Development on Online Adjunct Faculty Job Satisfaction
Marie Ferguson
Liberty University
School of Education
You are invited to be in a research study of identifying the essential components to effectively enhance the professional development and support services provided to online adjunct faculty as they relate to job satisfaction. You were selected as a possible participant because you are an adjunct faculty member at the research site. I ask that you read this form and ask any questions you may have before agreeing to be in the study.
This study is being conducted by Marie Ferguson, doctoral candidate at the Liberty University majoring in Educational Leadership.

Background Information:
The purpose of this study is to examine the effects of faculty completion of four conditions (fully online, fully face-to-face, blended [online and face-to-face], and none) of professional development on levels of job satisfaction among community college online adjunct faculty. The data from this research will be used to assist administrators to identify the essential components to effectively enhance the professional development and support services provided to online adjunct faculty as they relate to job satisfaction which will positively impact academic achievement and retention of online adjunct faculty.

Procedures:
If you agree to be in this study, I would ask you to do the following things:
1. Participants will be sent via email a Survey Monkey® link that will take them directly to the encrypted survey/consent online.
2. Participants will be asked to complete a 15-20 minute online survey within a three-week time frame that may be extended one week, depending on the response rate.
3. Participants will take and submit the survey.

Risks and Benefits of being in the Study:
The study has several risks: No more than the risk typically associated with daily activities is associated with this study, all identifiable information regarding participants, college, and study site location will be omitted and pseudonyms used.
The benefits to participation are none other than the personal satisfaction of having contributed to this study. The possible benefits to society include sharing of perspectives and experiences on the topic of professional development and online adjunct faculty for the purpose of improving the overall job satisfaction of adjunct faculty teaching online.

Compensation:
There will be no compensation for participants. The Liberty University Institutional Review Board has approved this document for use from 4/2/15 to -- Protocol # 2163.040215
Confidentiality:
The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records. To maintain confidentiality, all identifiable information regarding the study site location will be omitted and pseudonyms used. Information will not be included that will make it possible to identify a participant or site. Research data will be stored in a locked file cabinet in the principal investigator’s office and only the primary researcher will have access to the data records. After a time period of three years, all research documents will be shredded; survey responses will be deleted. No identifying data will be used in any publication, product, or future research that may extend from this study.

Voluntary Nature of the Study:
Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or . If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:
The researcher conducting this study is Marie Ferguson. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at and or her advisor, Dr. Mark Lamport, . If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at irb@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:
I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Take the Survey
APPENDIX D: Research Site Consent Form
Dear Colleagues:
One of our colleagues, Marie Ferguson, is embarking on a research project for her doctoral dissertation. Her research project has to do with “adjunct faculty development at FDTC.” For this project to succeed, Marie needs your help. In particular, she needs you to fill out an online survey that she has designed with her advisor. The link for the survey is: https://www.surveymonkey.com/s/LLB5CBY.

The survey seeks to identify the needs of adjunct faculty at FDTC. While the survey is entirely voluntary, I am hoping that it will give us some important insights into our adjunct faculty support system that can be used by the Center for Teaching & Learning as well as other academic and non-academic departments to develop and/or modify our programming for adjunct faculty. As the Chief Academic Officer at the college, I want to reassure that the administration values the important and critical service that adjunct faculty provide to our students, institution, and community. It is, therefore, essential that we learn from all of you about how we can improve your development so you can continue to provide the best service that you can. Please take a few minutes to fill out this survey.

If you have any questions about the survey, I encourage you to contact Marie. Of course, you are also welcome to write to me if you prefer it.

Vice President for Academic Affairs
APPENDIX F: Recruitment Email Script

Hello Adjunct Faculty Member,

My name is Marie Ferguson, and I am a doctoral candidate at the Liberty University majoring in Educational Leadership. As a requirement for completion of my Ed.D degree, I am working on a dissertation entitled “The Effects of Professional Development on Online Adjunct Faculty Job Satisfaction”. This research can provide insight into identifying the essential components to effectively enhance the professional development and support services provided to online adjunct faculty as they relate to job satisfaction. I would be very grateful if you could take a few minutes to respond to the Web-based survey questionnaire.

By participating in this research study, your valuable input in this study will help identify the professional development needs of online adjunct faculty to be successful in their post-secondary academic classrooms. The results of the study will be beneficial for improving the quality of professional development offered to adjunct faculty and guide institutional leaders to better serve the professional development needs of faculty.

Participation in this research study is voluntary. The faculty questionnaire will take from 15-20 minutes to complete. It will consist of motivation and hygiene job satisfaction constructs and your level of professional development. There will be three questions regarding your ethnicity, highest level of education and age. All responses will be confidential and will be used only for this study. You will be asked to complete an online survey via Survey Monkey® online survey platform. You will click on a survey link to start the survey. Consent information is included as the first page of the survey. Please read the consent information and proceed as desired.

Please accept my sincere thank you in advance for your cooperation in this study. There is no reward for your effort other than the knowledge that you have helped a graduate student complete her dissertation and that you have contributed to further research in the professional development of online adjunct faculty. If you have any questions about this study, please contact Marie Ferguson at (843) 430-1131 or email mcferguson2@liberty.edu.

Your expediency in returning the Web-based survey will be greatly appreciated. The study should be completed by August 2015. You may participate in this research study by clicking on https://www.surveymonkey.com.

Thanks again for participating,
Marie Ferguson, Principal Investigator
Email: mcferguson2@liberty.edu
Phone: (843) 430-1131
Hello Adjunct Faculty Member,

At the beginning of last week, an Internet survey in search of your views to effectively enhance the professional development and support services provided to online adjunct faculty as they relate to job satisfaction was sent to your email address. If you have submitted the survey, please accept my genuine thanks.

If not, I would be very grateful if you could take a few minutes to respond to the Web-based survey questionnaire. Your valuable input in this study will help identify the professional development needs of online adjunct faculty to be successful in their post-secondary academic classrooms. The results of the study will be beneficial for improving the quality of professional development offered to adjunct faculty and guide institutional leaders to better serve the professional development needs of faculty.

I am providing the Internet survey link again in this email in case you did not receive a previous email with the Internet survey/consent link or if it was misplaced. If for any reason you prefer not to participate in this study, please let me know by responding to this email. You may participate in this research study by clicking on https://www.surveymonkey.com. If you have any questions or comments about this study my contact information is below.

Thanks again for participating,
Marie Ferguson, Principal Investigator
Email: [redacted]
Phone: [redacted]

APPENDIX G: Reminder Email