

ABSTRACT

Michael A. Sage, CYBERLOAFING: A STUDY OF PERSONALITY FACTORS AND ORGANIZATIONAL COMMITMENT AS PREDICTOR VARIABLES OF CYBERLOAFING AND PERCEIVED ORGANIZATIONAL ACCEPTANCE (Under the direction of Dr. John Cope) Department of Psychology, June 2015

The purpose of this study was to investigate the relationship between personality and organizational commitment with cyberloafing. Results indicate that all personality factors (conscientiousness, extraversion, agreeableness, openness to experience, and emotional stability) were negatively correlated with cyberloafing, however, only conscientiousness was significant. Although they were not significant, affective and normative commitment were negatively correlated whereas continuance commitment was positively correlated with cyberloafing. Multiple linear regression was used to create a model with personality factors, organizational commitment components, and age accounting for 55.8% of the variance in cyberloafing frequency. The theoretical implications of the results are discussed.

CYBERLOAFING: A STUDY OF PERSONALITY FACTORS AND ORGANIZATIONAL
COMMITMENT AS PREDICTOR VARIABLES OF CYBERLOAFING AND PERCEIVED
ORGANIZATIONAL ACCEPTANCE

A Thesis

Presented to

The Faculty of the Department of Psychology

East Carolina University

In Partial Fulfillment

of the Requirement for the Degree

Master of Arts in Psychology

by

Michael A. Sage

June, 2015

© (Michael A. Sage, 2015)

CYBERLOAFING: A STUDY OF PERSONALITY FACTORS AND ORGANIZATIONAL
COMMITMENT AS PREDICTOR VARIABLES OF CYBERLOAFING AND PERCEIVED
ORGANIZATIONAL ACCEPTANCE

By

Michael A. Sage

APPROVED BY:

DIRECTOR OF THESIS

John G. Cope, Ph.D.

COMMITTEE MEMBER

Karl L. Wuensch, Ph.D.

COMMITTEE MEMBER

Laura J. Stanley, Ph.D.

CHAIR, DEPARTMENT OF PSYCHOLOGY

Susan L. McCammon, Ph.D.

DEAN OF THE GRADUATE SCHOOL

Paul J. Gemperline Ph.D.

Acknowledgements

The work presented in this thesis would not have been possible without my thesis chair, Dr. John Cope, as well as my thesis committee members, Dr. Karl Wuensch and Dr. Laura Stanley. Their expertise, advice, and guidance were invaluable and greatly appreciated in the educational process of this thesis. I would also like to thank Dr. Mark Bowler, Dr. Jennifer Bowler, Dr. Alex Schoemann, and Dr. Shahnaz Aziz for their extensive contributions to my education as a graduate student. Additionally, the unconditional support of Katy Scott, Jean Sage, Dan Sage, Paul Sage, Bill Sage, Matt Schueler, Kaylin Schueler, Eleanor Scott, John Scott, Katelyn Briggs, Bryan Daniel, Timothy Eason, Kelsey Hardy, Lauren Lanzo, Andrew Theado, Katie Vitiello, Megan Waggy, and Anne Carroll inspired me throughout all of my time with East Carolina University.

Table of Contents

Title Page	i
Copyright Page.....	ii
Signature Page	iii
Acknowledgments.....	iv
Table of Contents.....	v
List of Tables	viii
CHAPTER I: INTRODUCTION.....	1
Employee Rationale for Cyberloafing	2
Severity of Cyberloafing Behaviors.....	3
Organizational Commitment.....	5
Affective Commitment	6
Continuance Commitment	7
Normative Commitment	7
The Five-Factor Model of Personality	9
Conscientiousness.....	10
Emotional Stability (Neuroticism).....	11
Extraversion (Surgency)	11
Agreeableness	11
Openness to Experience (Intellect).....	12
Organizational Prediction with the Five-Factor Model	12
Overall Job Performance.....	12
Job Satisfaction	14

Absenteeism	15
Counterproductive Work Behaviors	16
Demographics	17
Current Study Hypotheses	17
Cyberloafing Factors	17
Perceived Acceptance	18
Organizational Commitment	20
Personality Factors	20
CHAPTER II: METHODS	22
Participants	22
Demographics	23
Measures	23
Cyberloafing	23
Perceived Acceptance of Cyberloafing	24
Organizational Commitment	24
Five-factor Model of Personality	24
CHAPTER III: RESULTS	26
Descriptive Statistics	26
Hypothesis 1: Constructs of Cyberloafing Behaviors	28
Hypotheses 2a, 2b: Acceptable and Not Acceptable Cyberloafing Behaviors	31
Hypotheses 3a, 3b, 3c: Relationship of Organizational Commitment and Cyberloafing	33
Hypotheses 4a, 4b, 4c, 4d, 4e: Relationship of Personality and Cyberloafing	34

Predicting Cyberloafing Through Multiple Regression.....	35
CHAPTER IV: DISCUSSION	40
Implications of Results	40
Limitations and Future Research	44
Conclusions.....	45
REFERENCES	47
APPENDIX A: FIVE-FACTOR MODEL OF PERSONALITY SUB-FACETS	55
APPENDIX B: COLLEGE OF BUSINESS RECRUITMENT DOCUMENTS	56
APPENDIX C: FACULTY RECRUITMENT DOCUMENTS	58
APPENDIX D: SURVEY INSTRUMENT AND INFORMED CONSENT	60
APPENDIX E: IRB APPROVAL DOCUMENTATION	62

List of Tables

Table 1: Descriptive Statistics, Correlations, and Alpha Coefficients of Variables.....	27
Table 2: Cluster Analysis Cyberloafing Constructs.....	29
Table 3: Factor Analysis Cyberloafing Constructs.....	31
Table 4: Perceived Acceptance of Cyberloafing Behaviors Sort by Mean	33
Table 5: Organizational Commitment and Cyberloafing Correlations.....	34
Table 6: Personality Factors and Cyberloafing Correlations.....	35
Table 7: Predicting Cyberloafing Frequency with Personality.....	36
Table 8: Predicting Cyberloafing Frequency with Organizational Commitment.....	37
Table 9: Predicting Cyberloafing Frequency with Personality and Organizational Commitment	38
Table 10: Predicting Cyberloafing Frequency with Personality, Organizational Commitment, and Age	39

CHAPTER I: INTRODUCTION

Technological resources in the workplace have improved organizational performance by allowing faster communication, reducing costs, and facilitating information access; however, employees can take advantage of these resources by using them for personal purposes.

Cyberloafing, the personal use of computers or cell phones during work hours, has led to a yearly productivity loss ranging between \$54 to 85 billion for U.S. companies (Jia, Jia, & Karau, 2013; Lim & Teo, 2005). Research has shown that up to 90% of employees have reported viewing recreational websites at work and admit to spending more than two hours cyberloafing each day (Fox, 2010; Sharma & Gupta, 2004). Employees have reported that between 30-65% of Internet use during a workday is not work-related (Barlow, Bean, & Holt, 2003; Conlin, 2000; Jia et al., 2013). A recent study found employees cyberloafing for an average of 51 minutes a day, and when asked how much cyberloafing was acceptable, employees felt it was permissible to cyberloaf as long as it did not exceed 75 minutes a day (Lim & Chen, 2012).

In addition to lost productivity, non-work-related use of the Internet reduces network resources and can make the organization vulnerable to viruses by visiting insecure websites or downloading malicious software (Lim, 2002). As many of the electronic devices used while cyberloafing are purchased by the organization, it is the organization's responsibility to make sure they are not used carelessly (Smith & Tabak, 2009). Some would say that it is the company's responsibility to their stockholders to ensure their intellectual material and other company assets are well protected from being compromised by a virus (Smith & Tabak, 2009).

Employers can also be legally liable for illegal activities conducted by employees such as downloading copyrighted media and transmission of child pornography (Aalberts, Hames, & Thistle, 2009; Fazekas, 2004). Anyone who has sustained damage from an employee's

misconduct can hold the employer responsible whether it was aware of the wrongdoing and did not prevent it, or if the employer was unaware but should have known (Fazekas, 2004). A plaintiff would only need to prove that the defendant either knew of the misconduct or substantially participated in the misconduct in order to be liable (Vernon, 2012). Participation could include supplying the Internet Service Provider (ISP) to the employee, which the majority of organizations provide (Vernon, 2012).

Research up to this point has heavily focused on why employees cyberloaf, and their perceived severity of cyberloafing behaviors. Organizations could greatly benefit from knowing what characteristics or traits employees have that makes them more likely to cyberloaf at work by using it as part of their selection procedure. Employee personality factors and level of organizational commitment may be able to lead us to better understand cyberloafing at work.

The current study involved an investigation of organizational commitment and personality as predictors of cyberloafing and the employees' perceived organizational acceptance of cyberloafing behaviors. Factor analysis and cluster analysis were used to determine the number of dimensions within the cyberloafing variables (item scores) as well as the perceived acceptance of cyberloafing variable.

Employee Rationale for Cyberloafing

With the staggering impact of cyberloafing on organizations, researchers have studied employees' rationale for committing these behaviors. Lim and Teo (2005) developed three main categories of justification consisting of normalization, minimization, and superordination. The most common justification is normalization, which is characterized by employees feeling that it is okay to cyberloaf if they perceive that other employees are also doing so. The majority (88%) of the participants in Lim and Teo's (2005) study expressed normalization as a primary

justification and perceive cyberloafing as a normal behavior. Blanchard and Henle (2008) found that normalization applies only to less serious behaviors (checking e-mail) and not more serious behaviors (gambling).

Employees also minimized the impact of their cyberloafing behaviors with the rationalization that small amounts of time each day was acceptable. Those who demonstrated this justification tended to downplay the consequences of their behaviors on the organization and perceived the activities as short, harmless breaks (Lim & Teo, 2005). The third justification, superordination, derives from employees who feel that they were wronged by the organization, which makes cyberloafing more acceptable. Employees may perceive inequity within the organization when they believe their efforts at work exceed their rewards. A sample item from superordination is “I am currently underpaid for the number of hours I need to work. Hence, the company should not mind if I use the Internet for non-work related purpose while in office as I hardly have personal time at home” (Lim & Teo, 2005, p. 1088).

Severity of Cyberloafing Behaviors

Cyberloafing can be categorized as several different behaviors with varying levels of perceived abuse to the organization. Previous research has tended to categorize the behaviors as severe and not severe (Blanchard & Henle, 2008; Lim & Teo, 2005; Ugrin & Pearson, 2013). However, which behaviors are perceived as severe varies between studies. The difference in cultural values between the two samples could account for the variation (Blanchard & Henle, 2008; Lim & Teo, 2005). Using a sample from the United States, one study asked participants to rank the abusiveness of different cyberloafing behaviors from 0 (not abusive) to 100 (very abusive). They found personal e-mail to be the least abusive (30.8), followed by personal money management (47.9), social networking (54.2), viewing media (54.5), personal shopping (61.9)

and viewing pornography (96.8) as the most abusive behavior (Ugrin & Pearson, 2013). Lim and Chen (2012) analyzed the severity of cyberloafing behaviors and found viewing news websites to be the least serious followed by non-work-websites, sports websites, entertainment websites, downloading non-work-related information, instant messaging, online shopping, looking for employment, and finally, playing online games. In general, employees tend to perceive checking personal e-mail and browsing sports or news websites as less abusive than downloading music and viewing adult websites (Blanchard & Henle, 2008; Ugrin & Pearson, 2013).

Beyond the perceived severity of the behaviors, they can also be categorized into specific dimensions. Blau, Yang and Ward-Cook, (2004) conducted an exploratory factor analysis on their cyberloafing measure and found three distinct, yet similar factors. The largest factor, named “interactive cyberloafing,” contained seven items consisting of playing games online, chatting through instant messengers, and gaining additional income at work (Blau et al., 2006). “Browsing-related cyberloafing” had six items that focused on browsing different kinds of websites such as sports, news or entertainment (Blau et al., 2006). Their third domain, “non-work-related e-mail cyberloafing,” included checking, sending, and receiving e-mail (Blau et al., 2006).

Several correlates, such as work stressors, organizational justice and lost sleep have been related to cyberloafing (Henle & Blanchard, 2008; Lim, 2002; Wagner, Barnes, Lim & Ferris, 2012). Henle and Blanchard (2008), found employees who experienced role conflict and role ambiguity to be more likely to cyberloaf whereas those who perceived role overload were less likely. Also, employees who believe their organization is unjust in the treatment of their employees were more likely to exhibit cyberloafing behaviors (Lim, 2002). Wagner and

colleagues (2012) conducted a sleep study investigating the frequency of non-work related Internet searches the day (Monday) following a Daylight Savings Time shift where an hour of sleep is lost. Employees had a significantly higher amount of non-work related Internet searches in comparison to other Mondays (Wagner et al., 2012). Although antecedents to cyberloafing have been researched, to the best of this researcher's knowledge there have not been any studies that involve predicting which employees would be more inclined to perform more severe cyberloafing behaviors than less severe behaviors. The current study provides an insight to the relationship of the three components of organizational commitment and the severity of cyberloafing behaviors demonstrated by employees.

Organizational Commitment

Meyer and Allen (1990) developed the three component model that has been the base of most organizational commitment research to date. Their model theorized organizational commitment to be a psychological state that leads to a higher likelihood that an employee will stay with the organization. Organizational commitment research thus far has primarily focused on job performance, job satisfaction, work stress, organizational justice, and job involvement; however, little or no research has investigated the relationship between employee cyberloafing and their organizational commitment (Lee, Carswell, & Allen, 2000; Piotrowski, 2012; Zhang & Zheng, 2009). It is possible that employees who are not affectively or normatively committed would be less likely to view their organization as fair and be more likely to retaliate by cyberloafing (Lim, 2002). Additionally, employees who are not affectively or normatively committed could be more likely to experience work stress, and attempt to alleviate the stress with cyberloafing (Henle & Blanchard, 2008). Understanding the relationship between organizational

commitment and cyberloafing could provide an insight as to what form of commitment (or lack thereof) can be used as a predictor for employees exhibiting cyberloafing behaviors.

The three components of organizational commitment, affective, continuance, and normative, create an overall rating of attachment to the organization (Allen & Meyer, 1990; Herscovitch & Meyer, 2002). Each component is positively correlated with the likelihood to remain with the organization; however, the rationale for why they stay is different between the factors (Allen & Meyer, 1990; Herscovitch & Meyer, 2002). There are varying implications for job-related behavior for each component (Herscovitch & Meyer, 2002).

Affective commitment. The first component of Allen and Meyer's model refers to the identification and positive emotional bond an employee experiences as being a member of an organization (Allen & Meyer, 1990). Employees who score highly in affective commitment want to work at the organization and adopt the organization's mission and goals as their own (Allen & Meyer, 1990). Affective commitment tends to be the most favorable of the three components due to its positive correlations with performance (Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). In addition to employee performance, this component is also strongly correlated with attendance, citizenship behavior, in-group affect, cooperation, decreased role conflict, decreased role ambiguity, supervisor support, coworker support, and championing (Herscovitch & Meyer, 2002; Meyer et al., 2002; Rousseau & Aubé, 2010; Zhang & Zheng, 2009). It is also worth noting that affective commitment has been related to personality traits, including extraversion, agreeableness and conscientiousness (Panaccio & Vandenberghe, 2012). Overall, affective commitment is the most sought after component since employees who score highly on this trait attend work regularly, have higher

performance levels and put forth additional effort to help the organization when able (Herscovitch & Meyer, 2002).

Continuance commitment. The second component of commitment focuses on the costs an employee associates with leaving an organization. This dimension tends to be composed of two factors, the amount of investments individuals make and their perception of potential alternatives (Allen & Meyer, 1990). The costs associated with leaving the organization or investments the employee has with the organization are commonly known as “side-bets” in organizational commitment literature (Allen & Meyer, 1990). Employees who score highly may stay with an organization if they feel they would lose something such as membership, friends, or compensation (Allen & Meyer, 1990). On the other side, employees may remain with their current position if they believe there are not any viable alternatives worth pursuing (Herscovitch & Meyer, 2002). Those who score low in continuance commitment feel that they would not lose much if they were to leave the organization (Allen & Meyer, 1990). Research on continuance commitment has been correlated negatively with performance, self-esteem, and self-efficacy, and positively with role conflict and role ambiguity (Harris & Cameron, 2005; Meyer et al., 1989; Meyer et al., 2002).

Normative commitment. The final component of Meyer and Allen’s organizational commitment model, normative commitment, is characterized by employees remaining with an organization due to a feeling of obligation (Allen & Meyer, 1990). Individuals can internalize their behaviors and interests to the organization’s goals and interests, which leads to them committing to the organization because they believe they should (Allen & Meyer, 1990). The extent to an employee’s level of normative commitment can be influenced by their prior experiences, through culture or family, and through organizational socialization (Allen & Meyer,

1990). Normative commitment has been positively correlated with cooperation, and organizational citizenship behavior (Herscovitch & Meyer, 2002; Meyer et al., 2002). Meyer and Allen (1997) determined championing, the demonstration of extreme enthusiasm and going above and beyond what is formally required, to be positively correlated with normative commitment.

Although at the time of this research there were no studies directly using organizational commitment as a predictor of cyberloafing behaviors, both organizational commitment and cyberloafing behaviors have been correlated with work stressors and organizational injustice. Work stressors, such as role ambiguity and role conflict, have been significantly correlated with organizational commitment as well as cyberloafing (Henle & Blanchard, 2008; Meyer et al., 2002). Employees who score high in affective and normative commitment are less likely to experience work stress whereas those who score high in continuance commitment are more likely to experience work stress. Henle and Blanchard (2008) found that employees who experience work stress are significantly more likely to cyberloaf, possibly as a way to relieve stress. This could suggest that employees who are affectively or normatively committed are less likely experience work stress and therefore less likely to cyberloaf.

Meyer and colleagues (2002) also found components of organizational justice (how fair an employee sees the decisions or actions of an organization) to be significantly correlated with components of organizational commitment. Employees who are affectively or normatively committed are more likely to perceive their organization as fair, whereas those who score high in continuance commitment are less likely to perceive their organization as fair (Meyer et al., 2002). Lim (2002) determined employees who perceive their organization as not fair are significantly more likely to cyberloaf, possibly as a way to retaliate against the injustice.

Through these relationships it is suggested that employees who are affectively or normatively committed are more likely to perceive their organization as fair, and therefore less likely to cyberloaf.

The Five-Factor Model of Personality

There are several models of personality available. The current research used the Five-Factor Model (FFM, Big Five) (McCrae, 2002). The number of true factors involved with personality has commonly been debated. Hough (1992) suggested that nine personality constructs were necessary for criterion-related validity including “Dependability, Achievement, Potency and Affiliation” (p. 153). Hogan (1992) finds the Five-Factor Model to be a good basis for personality traits, but feels it does not cover some important traits, such as masculinity-femininity. He believes that individuals don’t think of themselves as the labeled traits they end up with after taking a Five-Factor Model assessment, and instead think of themselves in terms of values, fears, aspirations and goals (Hogan & Hogan, 1992). Hogan created the Hogan Personality Inventory (HPI) in response to these issues. Paunonen and Jackson (2000) compiled lists of person-descriptive adjectives that are not adequately included in the Five-Factor Model, such as humorous, egotistical, conservative and sexy (Paunonen & Jackson, 2000). This suggests that the Five-Factor Model is not inclusive of all possible traits and additional constructs would be necessary to cover the appropriate bandwidth (Paunonen & Jackson, 2000).

The Five-Factor Model (FFM, Big Five) is the most prominent model of personality for applications in the workplace. Ratings of the five enduring personality traits are consistent across self-report measures as well as ratings created by observation (McCrae, 2002). Also, it is stable across cultures and age (McCrae, 2002). The Five-Factor Model has continued to be a very useful tool in measuring unique personality traits related to a variety of work behaviors.

The scales are available in abbreviated format that can be used quickly across a variety of work settings, and will fit well with the subject pool in the current research (O'Connor & Paunonen, 2007). Since the Five-Factor Model is most commonly used, the results of the current research may be able to provide insight to correlations with other previously researched variables such as job enrichment, teamwork, and telecommuting (Piotrowski, 2012).

The Five-Factor Model is a collection of personality traits in five broad domains: Extraversion (Surgency), Agreeableness, Conscientiousness, Emotional Stability (Neuroticism) and Openness to Experience (Intellect) (McCrae & John, 1992). Each dimension has sub-facets as displayed in Appendix A (Judge, Rodell, Klinger, Simon & Crawford, 2013). The Five-Factor Model has been applied to several different applications including education, personality disorders, and organizations (McCrae & John, 1992; O'Connor & Paunonen, 2007; Widiger & Lowe, 2007). Industrial and organizational psychologists have been interested in personality traits as they are stable styles of thinking, feeling, and behaving that have shown their effect on job performance, absenteeism and satisfaction (Costa, 1996). The Five-Factor Model has demonstrated predictive capabilities with job performance, satisfaction, counterproductive work behaviors and more, which makes it a useful tool (Barrick & Mount, 1991; DeShong, Grant & Mullins-Sweatt, 2015). The current study will detail each personality factor as well as discuss the correlations and predictive capabilities associated with each factor.

Conscientiousness. An individual who is self-disciplined, hardworking, dutiful, and organized would be considered conscientious. Those who are not productive, not driven to succeed, and disorganized would be on the opposite end of the spectrum (McCrae & Costa, 1991). Digman and Takemoto-Chock (1981) have referred to this dimension as “Will to

Achieve” due to the strong motivation to succeed and go beyond the scope of what is expected in those who score high in conscientiousness.

Emotional Stability (Neuroticism). Individuals who score low in emotional stability have the tendency to experience negative emotions, such as stress, anger, or depression (McCrae & Costa, 1987). Their chronic worrying, instability, self-consciousness and low stress tolerance makes them prone to psychiatric disorders (McCrae & Costa, 1987; McCrae & John, 1992). On the other side of the spectrum, those who score high in emotional stability tend to be calm, relaxed and even-tempered (McCrae & John, 1992). However, it does not mean that they are high in positive mental health, but instead, low in negative mental health (McCrae & John, 1992).

Extraversion (Surgency). Although there is a debate amongst researchers on how exactly to define extraversion, it is commonly known as how gregarious, friendly, active, and assertive an individual is (Judge et al., 2013; McCrae & John, 1992). Extroverts are commonly known to be energetic and enjoy working with others (Judge et al., 2013). Those who are introverted tend to be less socially engaged and more reserved in social situations (Judge et al., 2013). It is important to note that each end of the spectrum are not polar opposites of each other, for example, a person who scores low in extraversion is not necessarily unfriendly, even though a person who scores high in extraversion is likely to be friendly (McCrae & John, 1992).

Agreeableness. This factor is the degree of how cooperative, altruistic, and trusting an individual is (McCrae & John, 1992). Individuals who score low on this dimension generally are hostile, self-centered, spiteful or jealous of others. Agreeableness has also been referred to as “Friendly Compliance versus Hostile Noncompliance” (Digman & Takemoto-Chock, 1981). McCrae and Costa (1991) believe that agreeableness should be connected to happiness since

those who score highly in agreeableness have a greater motivation to achieve interpersonal intimacy (Judge, Heller, & Mount, 2002; McCrae & Costa, 1991).

Openness to Experience (Intellect). This factor is characterized by divergent thinking, an appreciation of aesthetics, and seeking variety (McCrae & Costa, 1991). Individuals who score highly on openness to experience tend to be intellectually curious and willing to try new things (Judge et al. 2002; McCrae & John, 1992). Those who are low scoring tend to have narrow interests, prefer to handle tasks conventionally, and are resistant to change (McCrae & Costa, 1991).

Organizational Prediction With the Five-Factor Model

Overall job performance. Employees are not using company time productively while cyberloafing, and it could be argued that this would cause their performance to suffer (Lim & Teo, 2005). Understanding how personality traits relate to overall job performance can provide an insight to which traits may be associated with cyberloafing behaviors. Several studies have been performed to determine which of the dimensions are the most important when predicting job performance with the intention of use in selection. The results have been variable due to the differing natures of job performance between occupations (Barrick & Mount, 1991). For example, personality will be related to the performance of a sales person differently than to the performance of a police officer. Research has shown that conscientiousness has the most consistent relationship with all job performance criteria and across all forms of occupations (Barrick & Mount, 1991; Costa, 1996; Salgado, 1997). A meta-analysis conducted in Europe found similar results as those in the United States, suggesting that conscientiousness is the strongest and most consistent predictor of job performance (Salgado, 1997).

Employees who are self-disciplined, dutiful and strive for achievement are going to perform better than those who are not (Barrick & Mount, 1991; Behling, 1998; Seibert & Kraimer, 2001). Also, they are more likely to have positive career-related self-efficacy (Hartman & Betz, 2007). Conscientiousness has been considered by many to be the second strongest indicator of job performance, after general intelligence (Behling, 1998; Costa, 1996).

Although it is not as strongly correlated as conscientiousness is to job performance, extraversion has been a valid predictor for occupations involving social interactions, such as managers and sales positions (Barrick & Mount, 1991; Costa, 1996). Those who are outgoing, assertive, and sociable are more likely to have better performance in these personal interaction-oriented occupations (Barrick & Mount, 1991; Seibert & Kraimer, 2001).

When it comes to emotional stability and job performance, those who score low in emotional stability may show lower levels of performance than those who score higher (Costa, 1996; Seibert & Kraimer, 2001). One study found emotional stability to be a significant negative correlation with inefficacy (not being able to produce desired result), which supports the idea of not being able to function properly (Hartman & Betz, 2007). Individuals who score very low on emotional stability are not necessarily more likely to have higher job performance than those who have a normal score (Barrick & Mount, 1991). Overall, emotional stability can be viewed as negligible as long as an individual has enough stability to be functional (Barrick & Mount, 1991).

Throughout the meta-analytic literature on job performance on the Five-Factor Model, agreeableness was positively correlated with job performance (Witt, Burke, Barrick, & Mount, 2002). Similar to extraversion, being able to work with others is crucial, which makes agreeableness important (Barrick & Mount, 1991). Agreeableness has also been connected to

transformational leadership and charisma (Judge & Bono, 2000). Having a manager who would be disposed to a transformational style of leadership could be beneficial in certain organizations and could be taken into consideration for selection (Judge & Bono, 2000). Witt and colleagues (2002) found that across several job contexts (clerical workers, sales representatives, production workers, etc.) employees who scored highly in conscientiousness and agreeableness were rated with higher performance than those who only scored highly in conscientiousness. It is possible that the raters were influenced by biases when rating those with high agreeableness since they tend to be nice people. One explanation for agreeableness being positively related to job performance is that it makes working with others easier (Costa, 1996).

Openness to experience has been strongly connected to performance in training programs, but not to overall job performance (Barrick & Mount, 1991). One recent study by Fudge and Furnham found that conscientiousness and openness to experience were indicators of sales performance at a sports organization; however, they are one of the few to find this connection. Individuals who score high on openness to experience are more willing to learn and benefit the most from training programs (Barrick & Mount, 1991; Costa, 1996). Also, they are more likely to be entrepreneurs with their imaginative, creative and broad-minded nature (Barrick & Mount, 1991; Furnham & Fudge, 2008; Zhao & Seibert, 2006).

Job satisfaction. The Five-Factor Model has been connected to job satisfaction in multiple studies and could provide insight into employees who cyberloaf due to dissatisfaction with their jobs (Judge et al., 2002; O'Neil, Hambley, & Bercovich, 2014). Low emotional stability, extraversion and conscientiousness all showed medium correlations with job satisfaction and emotional stability had the strongest (Connolly & Viswesvaran, 2000; Judge et al., 2002; Seibert & Kraimer, 2001). Low emotional stability has been known as a source of

negative affect that makes neurotic employees more likely to place themselves in negative situations (Emmons, Diener & Larsen, 1985; Judge et al., 2002; Seibert & Kraimer, 2001; Turban & Dougherty, 1994). This negative affect carries over to their work life, causing them to have lower job satisfaction (Ilies & Judge, 2003; Judge et al., 2002).

On the opposite side of the spectrum, extraverts are more likely to experience positive emotions that carry over to their work life (Connolly & Viswesvaran, 2000; Judge et al., 2002). Due to their social disposition, they are also more likely to seek out social relationships with co-workers which they find rewarding and increases their job satisfaction (Judge et al., 2002).

Conscientiousness is positively related to job satisfaction since those who score high in this dimension are more dutifully involved with their work, and that makes earning rewards more likely (Connolly & Viswesvaran, 2000; Judge et al., 2002). Whether the rewards are intrinsic (e.g., respect, recognition) or extrinsic (e.g., promotion, pay bonus), their job satisfaction will increase (Connolly & Viswesvaran, 2000; Judge et al., 2002).

The researchers who focused on job satisfaction all had differing ideas for what job satisfaction research should focus on. Judge and colleagues (2002) recommend future research to integrate alternative frameworks of the source of job satisfaction. Connolly & Viswesvaran (2000) believe that concentrating on possible moderator variables besides the common employee tenure, organization size, or type of organization, would provide a more comprehensive understanding of job satisfaction. There is a decent amount of research to build off of, and it is clear that further research will be required to come to a consensus.

Absenteeism. Research results on the relationship between absenteeism and the Five-Factor Model is mixed. One of the earlier studies found a strong connection between extraversion and conscientiousness as predictors for absenteeism (Judge, Martocchio, &

Thoresen, 1997). They concluded that those who score high on extraversion are more likely to be absent than those who score high on conscientiousness (Judge et al., 1997). They hypothesized that an extravert's desire to have a strong social life makes them more likely to be absent (Furnham & Bramwell, 2006; Judge et al., 1997). Conscientious employees, on the other hand, are dedicated to their work and rule-bound which causes them to be absent less frequently (Furnham & Bramwell, 2006; Judge et al., 1997).

On the other side of the research, Salgado (2002) found that there was no connection between any of the Five-Factor Model dimensions and absenteeism. Darviri & Woods (2006) also found no significant relation. Absenteeism can cost an organization a significant amount of money (Darviri & Woods, 2006). Knowing how these dispositions may cause an employee to react to absence-control policies is useful when creating these rules (Judge et al., 1997).

Counterproductive work behaviors. There are two general categories of counterproductive work behaviors, interpersonal, which includes behaviors that hurt an individual physically or emotionally, and organizational, which include behaviors that decrease productivity (DeShong et al., 2015). DeShong and colleagues (2015) found agreeableness and conscientiousness to be negatively related to both forms of counterproductive work behaviors. Salgado (2002) also found agreeableness and conscientiousness to be negatively related to deviant behaviors such as theft, disciplinary problems, substance abuse and organizational rule breaking. Neuroticism was positively related to organizational counterproductive work behaviors (DeShong et al., 2015). Since counterproductive work behaviors lead to financial loss as well as other negative impacts to organizations similar to cyberloafing, it is important to research potential predictors of these behaviors (DeShong et al., 2015).

Demographics

Due to the dynamic nature of technology in the workplace, demographic correlations are expected to change with time. Most of the cyberloafing research to date has found men to be more likely to cyberloaf than women (Garrett & Danzinger, 2008; Henle & Blanchard, 2008; Lim & Chen, 2012; Vitak, Crouse, & LaRose, 2011). Lim and Chen (2012) found that men (61 minutes) were more likely to cyberloaf for longer periods throughout the day than women (46 minutes). In addition, women were significantly more likely to believe cyberloafing had a negative effect on their work, whereas men perceived it as something that made work more interesting and made them a better worker (Lim & Chen, 2012).

Age has been negatively correlated with cyberloafing in several studies (Andreassen et al., 2014; Henle & Blanchard, 2008; Vitak et al., 2011). Recent research has found that higher age is significantly correlated with negative attitudes towards the use of websites for personal purposes during work hours (Andreassen et al., 2014). Vitak and colleagues (2011) determined higher age employees to be significantly less likely to exhibit any form of cyberloafing behavior whether it be communicative, leisure, or otherwise. The negative correlation between Internet experience and age is likely responsible for this (Henle & Blanchard, 2008). With the age of workers increasing, this demographic will continue to change with time.

Current Study Hypotheses

Cyberloafing factors. There are several behaviors that qualify as cyberloafing, and the current study aims to define the constructs of different behaviors. Differentiation among the forms of cyberloafing can provide further analysis with correlations of other variables such as personality and organizational commitment. Lim and Teo (2005) developed two categories of cyberloafing behavior including “browsing activities” and “e-mail activities.” Although the

internal consistency for each category was sufficiently strong ($\alpha = 0.85, 0.90$), other researchers have reason to believe there are actually three distinct categories. Blau and colleagues (2004) created “browsing-related cyberloafing,” “non-work-related e-mail cyberloafing,” and “interactive cyberloafing” from the results of their study. There are several factors that could be responsible for the difference between the two studies including the culture of the sample and the items used in the measure. For example, Blau and colleagues included “Browse investment-related Web sites,” “Download online games,” and “Post messages on non-work-related items.” The addition of these items may have been the cause of finding an additional category in their factor analysis (Blau et al., 2006, p. 13). Lim and Teo’s study used a sample from Singapore with a measure consisting of 13 items whereas Blau and colleagues used a sample in the United States with a measure of 16 items.

The current study used a modified version of Blau and colleagues’ measure of the three category model, which includes additional items to be more relevant to current-day technology use (Blau et al., 2006).

Hypothesis 1: Individual cyberloafing behaviors will group together as three related, yet distinct constructs: browsing-related cyberloafing, e-mail-related cyberloafing, and interactive cyberloafing.

Perceived acceptance. This construct is defined as the employee’s perceived level of organizational tolerance towards cyberloafing. Participants who score high will believe their organization is aware of cyberloafing behaviors and are accepting of employees committing the behaviors. Although there was not any previous research on perceived acceptance of individual cyberloafing behaviors at the time of this study, researchers have investigated the perceived severity of individual behaviors and cyberloafing norms of others (Blanchard & Henle, 2008;

Lim & Teo, 2005; Ugrin & Pearson, 2013). Blanchard and Henle (2008) found a significant correlation between perceived norms of co-workers cyberloafing and less severe cyberloafing behaviors. Following the normalization rationalization, perceived acceptance will be similar to perceived severity (Lim & Teo, 2005). Lim and Teo (2005) found browsing pornography, playing online games, looking for employment, instant messaging, and shopping to be perceived as the most serious forms of cyberloafing behavior (Lim & Teo, 2005). On the other end of the spectrum, viewing news, sports, and entertainment or non-work related websites were seen as the least serious (Lim & Teo, 2005). Blanchard and Henle (2008) found very similar results, although shopping was considered minor in severity. The discrepancy between the two studies could be due to a different sample or change in opinion over the years. Items used in this measure will likely group on two distinct factors of behavior, those perceived as acceptable or not acceptable. Cyberloafing behaviors that are commonly perceived as more serious (playing games and downloading non-work-related content) will be perceived as not acceptable since they are less frequent behaviors and more difficult to justify through normalization. Minor cyberloafing behaviors (viewing news, sports, social media, entertainment or non-work related websites and checking/receiving/sending e-mail) will be easier for employees to rationalize through normalization and minimization, which will lead to employees perceiving them as acceptable.

Hypothesis 2a: Playing games and downloading non-work-related will be perceived as not acceptable.

Hypothesis 2b: Viewing news, sports, social media, entertainment or non-work related websites, and checking/receiving/sending personal e-mail will be perceived as acceptable.

Organizational commitment. At the time of the current study, this researcher was unable to find any research investigating the relationship between organizational commitment and cyberloafing. Plenty of research has demonstrated correlations between the three components of organizational commitment and job performance (Lee et al., 2000; Meyer et al., 1989; Meyer et al., 2002). Cyberloafing is viewed as a counterproductive work behavior since it is defined as an employee using technology for personal reasons during work hours. Other counterproductive work behaviors, such as absenteeism, are negatively related to job performance, which makes it possible that employees who cyberloaf to have lower job performance than those who do not (Viswesvaran, 2002). Research has consistently demonstrated a strong positive correlation between affective commitment and job performance (Luchak & Gellatly, 2007; Meyer et al., 1989; Meyer et al., 2002). The strong link between affective commitment and the conscientiousness personality factor is further evidence of employees with high affective commitment being less likely to cyberloaf (Panaccio & Vandenberghe, 2012). Normative commitment has demonstrated a weaker positive correlation and continuance tends to be negatively correlated with job performance (Meyer et al., 1989; Meyer et al., 2002).

Hypothesis 3a: Affective commitment will be negatively related to cyberloafing

Hypothesis 3b: Normative commitment will be negatively related to cyberloafing

Hypothesis 3c: Continuance commitment will be positively related to cyberloafing

Personality factors. At the time of this research, only three studies were found that investigated the relationship between the Five-Factor Model of personality and cyberloafing. O'Neill and colleagues (2014) found agreeableness and conscientiousness to be negatively related to cyberloafing. However, their sample was from Canada and only consisted of

telecommuters. Extraversion and openness to experience were not measured (O'Neill et al., 2014). Andreassen, Torsheim, & Pallesen (2014) determined extraversion was positively related to cyberloafing while emotional stability and conscientiousness were negatively related. These results may not be generalizable to our study since their sample was Norwegian and they focused only on social networking behaviors instead of including a full spectrum of cyberloafing (Andreassen et al., 2014). A study by Jia and colleagues (2013) found conscientiousness and emotional stability to be negatively related to cyberloafing while extraversion was positively related on a U.S. sample. Neither agreeableness nor openness to experience were significant (Jia et al., 2013). The current study included additional cyberloafing items and further support the results of Jia and colleagues' study. With the information from these studies as well as the correlations of the five-factor model with job performance, the following hypotheses have been developed.

Hypothesis 4a: Conscientiousness will be negatively correlated with cyberloafing

Hypothesis 4b: Emotional Stability will be negatively correlated with cyberloafing

Hypothesis 4c: Extraversion will be positively correlated with cyberloafing

Hypothesis 4d: The association between Openness to Experience and cyberloafing will be very small, $|\rho| < .1$

Hypothesis 4e: The association between Agreeableness and cyberloafing will be very small, $|\rho| < .1$

CHAPTER II: METHODS

Participants

The sample consisted of graduate students from the College of Business and faculty at East Carolina University. In order to recruit the College of Business graduate students, e-mails were sent to the 38 professors who were teaching graduate level business classes. They were given a brief overview of the research and were asked to forward the e-mail to their students (see Appendix B). Three weeks after the initial e-mail, the College of Business professors were sent a reminder e-mail (see Appendix B). The College of Business graduate students were selected since there are 772 total students and many of them attend school part-time (71%), which allows them to obtain their MBA/MSA while being employed. The graduate students are predicted to work at various organizations, which may allow the results of the current study to be generalized to varying organizations.

Due a dearth of graduate student participants, a total of 199 faculty e-mail addresses were collected through the East Carolina University's Survey Research Oversight Committee to increase the sample size. Each faculty member received an e-mail summarizing the survey, and were provided a link to the survey in Qualtrics (see Appendix C). A reminder e-mail was sent one week after the initial e-mail (see Appendix C). The same survey was administered to both sources of participants. Each survey began with an overview of the survey, a confidentiality statement, a request for consent, a yes/no question on whether or not the participant was currently employed, and the total of 123 items to be completed. If they were not employed, they were not eligible and were automatically routed to the end of the survey. In order to optimize the number of responses, participants were incentivized with being entered into a raffle for one of four \$50 Visa prepaid gift cards, which was distributed by the lead researcher. After completing

the survey, participants were directed to a separate questionnaire that functions as the raffle and asks for their contact information. Data were downloaded from Qualtrics and analyzed with IBM SPSS Statistics 22 software.

Demographics

A total of 51 participants were included in the final sample consisting of 35 graduate students, and 16 faculty members. Fifty-four percent of the participants were men in the age range of 22 to 71 ($M = 35.82$, $SD = 12.47$). Women accounted for 46% of the participants and were in the age range of 23 to 67 ($M = 40.26$, $SD = 13.48$). The faculty members were evenly split between those who had tenure status and those who did not. A majority of the participants were White (84.3%), followed by Black or African American (9.8%), Asian Indian (3.9%), and then on biracial participant who was White and Black (2%). Most participants worked 40 to 50 hours a week (51%), followed by 50 to 60 hours (19.6%), 30 to 40 hours (15.7%), 20 to 30 hours (7.8%), and 10 to 20 hours a week (5.9%). On average, participants were employed at their current place of employment for 7.14 years ($M = 7.14$, $SD = 7.73$). Two questions on the number of minutes they cyberloaf at work each day ($M = 45.04$, $SD = 46.29$), and the number of minutes cyberloafing they perceive as acceptable ($M = 36.69$, $SD = 29.48$) at their organization were included with the demographics. The demographic questions can be found in the survey instrument in Appendix D.

Measures

Cyberloafing. This study used a modified version of Blau and colleagues' (2004) measure of cyberloafing. Additional items were added in order to assess a wider spectrum of cyberloafing behaviors. The updated measure consists of 23 items that list cyberloafing behaviors, and the participants were prompted to choose how frequently they engage in that

particular behavior. Respondents were able to choose on a four point rating scale including the following options: *Never*, *Rarely (about once a month)*, *Sometimes (at least once a week)*, and *Frequently (at least once a day)*.

Perceived acceptance of cyberloafing. The perceived acceptance of cyberloafing was measured using the same items from the cyberloafing measure with an alternate prompt and response scale to measure the perceived acceptance of cyberloafing. Participants were asked for their opinion of how accepting they believe their organization is with specific cyberloafing behaviors. Their response options were based on a five point rating scale including *Totally Unacceptable*, *Slightly Unacceptable*, *Neutral*, *Slightly Acceptable*, *Perfectly Acceptable*.

Organizational commitment. Meyer and Allen's (1993) measure of organizational commitment was used in this study to ascertain the participants' level of organizational commitment in each of the three components. Affective, continuance, and normative commitment each have six items with five point rating options including *Strongly Disagree*, *Disagree*, *Neither Agree nor Disagree*, *Agree*, and *Strongly Agree*. Sample items include "I really feel as if this organization's problems are my own" for affective commitment, "I feel that I have too few options to consider leaving this organization" for continuance commitment and "I owe a great deal to my organization" for normative commitment.

Five-factor model of personality. The International Personality Item Pool (IPIP) consists of 50 items to measure extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience (Goldberg et al., 2006). Each factor has ten items in which the respondent is asked to choose how accurate the statement is as a description of themselves. Participants have the option of responding *Very Inaccurate*, *Moderately Inaccurate*, *Neither Accurate nor Inaccurate*, *Moderately Accurate*, and *Very Accurate*. Sample items include "I

don't like to draw attention to myself” for extraversion, “I am not interested in other people's problems” for agreeableness, “I am always prepared” for Conscientiousness, “Am relaxed most of the time” for emotional stability and “I spend time reflecting on things” for openness to experience.

It is worth noting that some measures for the five-factor model of personality use neuroticism instead of emotional stability, which is essentially the other end of neuroticism. Eight of the ten items that make up the emotional stability construct used in this research appear to measure neuroticism (e.g., “Get stressed out easily,” “Am easily disturbed”), however, those items are reverse coded (response of 5 changed to 1, 4 to 2, etc.) to be emotional stability items.

CHAPTER III: RESULTS

Results

Descriptive statistics. Items for each organizational commitment construct, personality construct, cyberloafing measure, and perceived acceptance of cyberloafing measure were individually summed for each participant for an overall score on that construct or measure. Means, standard deviations, and correlations were calculated for all variables and can be found in Table 1. A reliability analysis to determine the internal consistency was conducted for each of the three organizational commitment factors as well as the five personality factors. Affective commitment ($\alpha = .891$), continuance commitment ($\alpha = .786$), and normative commitment ($\alpha = .828$) demonstrated acceptable levels of internal consistency (Cronbach, 1951). Although the openness to experience factor was bordering on low internal consistency ($\alpha = .718$), extraversion ($\alpha = .884$), agreeableness ($\alpha = .831$), conscientiousness ($\alpha = .831$), conscientiousness ($\alpha = .809$), and emotional stability ($\alpha = .856$) all portrayed acceptable levels of internal consistency (Cronbach, 1951).

Table 1.
Descriptive Statistics, Correlations, and Alpha Coefficients of Variables.

	<i>M</i>	<i>SD</i>	<i>EXT</i>	<i>AGR</i>	<i>CON</i>	<i>ES</i>	<i>OTE</i>	<i>AC</i>	<i>CC</i>	<i>NC</i>	<i>CLF</i>	<i>PAF</i>	<i>CLM</i>	<i>PAM</i>	<i>GEN</i>	<i>AGE</i>
EXT	31.73	7.19	(.88)													
AGR	38.37	6.15	.44**	(.83)												
CON	39.76	5.99	.16	.21	(.81)											
ES	36.39	6.90	.12	.01	.27	(.86)										
OTE	38.98	4.64	.29*	.13	.10	.22	(.72)									
AC	19.37	5.57	.36*	.31*	.29*	.22	.08	(.89)								
CC	17.22	4.76	.06	.11	-.12	-.18	-.07	.12	(.79)							
NC	18.75	5.08	.25	.32*	.34*	.04	-.04	.82**	.27	(.83)						
CLF	50.47	12.39	-.14	-.26	-.56**	-.03	-.15	-.19	.18	-.23	-					
PAF	57.04	18.06	.06	.13	-.05	-.12	.10	.07	.00	.13	.29*	-				
CLM	22.67	9.19	-.18	-.32*	-.13	.20	-.38**	-.21	.03	-.21	.42**	-.16	-			
PAM	36.69	29.48	.30*	.20	.11	.02	-.08	.04	.04	.04	-.09	.31*	.16	-		
GEN	1.45	0.50	-.02	.16	.16	-.28*	-.12	-.08	.00	.17	-.22	.08	-.18	.08	-	
AGE	37.82	13.00	.18	.18	.14	.14	.30*	.17	.16	.15	-.46**	-.21	-.36**	-.17	.17	-
TEN	7.14	7.73	.09	.00	.10	-.07	.03	0.01	.19	.00	-.26	-.26	-.18	-.15	.09	.69**

* $p < .05$, ** $p < .01$

Note. EXT = Extraversion, AGR = Agreeableness, CON = Conscientiousness, ES = Emotional Stability, OTE = Openness to Experience, AC = Affective Commitment, CC = Continuance Commitment, NC = Normative Commitment, CLF = Cyberloafing Frequency, PAF = Perceived Acceptance of Cyberloafing Frequency, CLM = Minutes of Daily Cyberloafing, PAM = Perceived Acceptance of Daily Cyberloafing (Minutes), GEN = Gender, TEN = Tenure.

Reliability Alpha Coefficients are listed on the diagonal.

Hypothesis 1: Constructs of Cyberloafing Behaviors. A cluster analysis was utilized to investigate the structure of the construct(s) in the newly created Cyberloafing measure. The two-cluster solution grouped together those cyberloafing behaviors that were frequent ($M = 1.21$, $SD = .86$) versus those that were infrequent ($M = .17$, $SD = .49$). The 18-item frequent cyberloafing behavior construct demonstrated a Cronbach's alpha of .852, and the 5-item infrequent cyberloafing behavior construct had a Cronbach's alpha of .732. Table 2 shows the items in each construct as well as the means, standard deviations, and skewness of each item. The results of the cluster analysis do not provide support for Hypothesis 1.

Table 2.
Cluster Analysis Cyberloafing Constructs.

Prompt: How often do you engage in each activity during work hours for personal reasons?

Scale: Never (0), Rarely (about once a month) (1), Sometimes (at least once a week) (2), Frequently (at least once a day) (3).

	<i>M</i>	<i>SD</i>	<i>Skewness</i>
Frequent Cyberloafing Behaviors ($\alpha = .852$)			
1. Browse sports-related Web sites	1.06	1.01	.12
2. Shop online for personal goods	1.06	.84	-.11
3. Browse investment-related Web sites	.90	.96	.34
4. Browse entertainment-related Web sites	1.14	.98	-.15
5. Browse general news Web sites	1.75	.77	-.89
6. Browse non-work-related Web sites	1.73	.87	-.73
7. Check non-work-related e-mail	1.88	.79	-1.30
8. Send non-work-related e-mail	1.76	.76	-.97
9. Receive non-work-related e-mail	1.73	.80	-.91
11. Download non-work-related information	1.00	.89	.18
14. Chat with other people with instant messenger	.75	.98	.81
15. Post messages on non-work-related items	.80	1.00	.79
17. Read or write in a blog	.41	.78	1.76
18. Send or receive personal text messages	2.02	.68	-.83
19. Make personal phone calls	1.61	.70	-.78
20. Use Twitter	.45	.86	1.55
21. Use Facebook	1.35	1.04	-.21
22. Use Instagram	.41	.80	1.50
Infrequent Cyberloafing Behaviors ($\alpha = .732$)			
10. Play online games	.20	.57	2.77
12. Download online games	.06	.31	5.65
13. Chat with other people in online chat rooms	.14	.49	3.51
16. Use the Internet to gain additional income while at work	.12	.43	3.80
23. Download Media (music / videos)	.35	.66	1.67

To further investigate the number of constructs and structure of this measure, an exploratory factor analysis was conducted. Velicer's Minimum Average Partial test and parallel analysis were employed to determine the appropriate number of factors to retain (O'Connor,

2000). Although the sample size was small and unlikely to have enough power for an adequate factor analysis, the analyses were done for the sake of comparison with the two-cluster solution.

The exploratory factor analysis using a principal-axis factor extraction was conducted to determine the factor structure. Velicer's MAP test recommended a three-factor solution, the Parallel Analysis recommended a two-factor solution for the cyberloafing items, and the scree plot indicated a two-factor solution. When comparing the two-factor solution to the three-factor solution, double-loading of items was an issue in each solution, however, the two-factor solution provided constructs that were less complex than those in the three-factor solution. For interpretation of the two factors, a Varimax orthogonal rotation was used. This rotation had sums of squared loadings ranging from 2.79 to 3.45, and the grouping of items was similar to that of the cluster analysis where the first factor was behaviors frequently performed and the second factor was behaviors infrequently performed (see Table 3). The frequent cyberloafing behavior construct had a Cronbach's alpha of .848, and the infrequent cyberloafing behavior construct had a Cronbach's alpha of .729, which could be increased to .752 if item 3 ("Browse investment-related Web sites") was removed. Although the factor analysis was calculated with an insufficient sample size, and there was a large number of double-loaded items between the two measures, it shows more evidence of a two-factor structure consisting of frequent and infrequent cyberloafing behaviors.

Table 3.
Factor Analysis Cyberloafing Constructs.

Prompt: How often do you engage in each activity during work hours for personal reasons?

Scale: Never (0), Rarely (about once a month) (1), Sometimes (at least once a week) (2), Frequently (at least once a day) (3)

Item	<i>M</i>	<i>SD</i>	Skewness	Factor Loading	
				1	2
Factor 1: Frequent Cyberloafing Behaviors ($\alpha = .848$)					
5. Browse general news Web sites	1.75	.77	-.89	.76	.09
6. Browse non-work-related Web sites	1.73	.87	-.73	.71	.04
8. Send non-work-related e-mail	1.76	.76	-.97	.68	.06
7. Check non-work-related e-mail	1.88	.79	-1.30	.62	-.01
4. Browse entertainment-related Web sites	1.14	.98	-.15	.61	.30
9. Receive non-work-related e-mail	1.73	.80	-.91	.60	-.02
2. Shop online for personal goods	1.06	.84	-.11	.59	.23
18. Send or receive personal text messages	2.02	.68	-.83	.59	-.30
1. Browse sports-related Web sites	1.06	1.01	.12	.49	.25
15. Post messages on non-work-related items	.80	1.00	.79	.47	.31
14. Chat with other people with instant messenger	.75	.98	.81	.41	.18
19. Make personal phone calls	1.61	.70	-.78	.39	.22
11. Download non-work-related information	1.00	.89	.18	.28	.25
21. Use Facebook	1.35	1.04	-.21	.27	.20
22. Use Instagram	.41	.80	1.50	.23	.13
Factor 2: Infrequent Cyberloafing Behaviors ($\alpha = .729$)					
12. Download online games	.06	.31	5.65	-.02	.79
10. Play online games	.20	.57	2.77	.03	.67
17. Read or write in a blog	.41	.78	1.76	.06	.63
23. Download Media (music / videos)	.35	.66	1.67	.24	.60
13. Chat with other people in online chat rooms	.14	.49	3.51	.21	.48
16. Use the Internet to gain additional income while at work	.12	.43	3.80	-.02	.45
20. Use Twitter	.45	.86	1.55	.32	.44
3. Browse investment-related Web sites	.90	.96	.34	.26	.31

Note. Double-loaded items are denoted in bold font.

Hypotheses 2a, 2b: Acceptable and not acceptable cyberloafing behaviors. To assess what cyberloafing behaviors were perceived as acceptable or not acceptable, the means, standard deviation, and skewness were calculated. Items were placed in categories based upon their

means (unacceptable: 1 – 1.5, slightly unacceptable: 1.5 – 2.5, neutral: 2.5 – 3.5, slightly acceptable: 3.5 – 4.5, and perfectly acceptable: 4.5 – 5). As seen in Table 4, majority of the items were categorized as slightly unacceptable (43.5%), and neutral (34.8%), followed by totally unacceptable (13%), and slightly acceptable (8.7%). It is worth noting that no behaviors were perceived as perfectly acceptable. For the unacceptable behaviors, item 10 (“Play online games”), no participants selected Slightly Acceptable or Perfectly Acceptable. The other two items categorized as unacceptable (“Use the Internet to gain additional income while at work,” “Downloading online games”) were not seen as Perfectly Acceptable by any of the participants.

Both items (10, 11) “Playing games,” ($M = 1.29$) and “Downloading non-work related information” ($M = 2.14$) in Hypothesis 2a were perceived as not acceptable, which provides support for Hypothesis 2a. The items addressed in Hypothesis 2b (items 1, 4, 5, 6, 7, 8, 9, 20, 21, 22) were all classified as slightly unacceptable or neutral, which does not support Hypothesis 2b. All of the items in Hypothesis 2b except for item 22, “Use Instagram,” were perceived as more acceptable than those in Hypothesis 2a.

Table 4.
Perceived Acceptance of Cyberloafing Behaviors Sort by Mean.

Prompt: In your personal opinion, how acceptable does your organization find each of the following behaviors during work hours?

Scale: Totally Unacceptable (1), Slightly Unacceptable (2), Neutral (3), Slightly Acceptable (4), Perfectly Acceptable (5)

	Min.	Max.	<i>M</i>	<i>SD</i>	Skewness
Unacceptable (3 items)					
10. Play online games	1	3	1.29	.61	1.96
16. Use the Internet to gain additional income while at work	1	4	1.37	.77	1.93
12. Download online games	1	4	1.39	.75	1.86
Slightly Unacceptable (10 items)					
13. Chat with other people in online chat rooms	1	5	1.61	.98	1.93
23. Download Media (music / videos)	1	5	1.86	1.25	1.17
22. Use Instagram	1	5	2.06	1.09	.86
11. Download non-work-related information	1	5	2.14	1.17	.82
17. Read or write in a blog	1	5	2.18	1.11	1.01
15. Post messages on non-work-related items	1	5	2.20	1.15	.92
2. Shop online for personal goods	1	5	2.29	1.15	.61
4. Browse entertainment-related Web sites	1	5	2.33	1.31	.75
14. Chat with other people with instant messenger	1	5	2.41	1.25	.50
20. Use Twitter	1	5	2.47	1.29	.57
Neutral (8 items)					
1. Browse sports-related Web sites	1	5	2.57	1.29	.46
21. Use Facebook	1	5	2.57	1.32	.31
3. Browse investment-related Web sites	1	5	2.63	1.26	.32
6. Browse non-work-related Web sites	1	5	2.94	1.35	.01
8. Send non-work-related e-mail	1	5	3.27	1.20	-.20
5. Browse general news Web sites	1	5	3.31	1.35	-.30
9. Receive non-work-related e-mail	1	5	3.37	1.20	-.41
7. Check non-work-related e-mail	1	5	3.41	1.34	-.45
Slightly Acceptable (2 items)					
19. Make personal phone calls	1	5	3.57	1.17	-.33
18. Send or receive personal text messages	1	5	3.78	1.01	-.65

Hypotheses 3a, 3b, 3c: Relationship of organizational commitment and cyberloafing.

As shown in Table 5, the direction of the relationship between the organizational commitment

components partially supported Hypotheses 3a, 3b, and 3c. Unfortunately none of the correlations were significant, which casts doubt on Hypotheses 3a, 3b, and 3c. It is possible that with a larger sample, the correlations would be significant. For affective commitment, and normative commitment, there was not a large difference between their correlation with the two measures of cyberloafing (difference in $r = .02$). As for continuance commitment, there was a difference of .15 in r between cyberloafing frequency and how many minutes a day someone cyberloafs.

Table 5.
Organizational Commitment and Cyberloafing Correlations.

	Cyberloafing Frequency	Cyberloafing Minutes/Day
Affective	-.19	-.21
Normative	-.23	-.21
Continuance	.18	.03

Hypotheses 4a, 4b, 4c, 4d, 4e: Relationship of personality and cyberloafing. Table 6 shows the correlations among the five factors of personality as well as the participants' cyberloafing frequency, and how many minutes they spend cyberloafing each day for the sake of comparison. Interestingly, the relationship of the correlations between all of the personality factors and cyberloafing frequency were negative. Conscientiousness was significantly correlated ($r = -.56$) with cyberloafing frequency, which supports Hypothesis 4a. Emotional stability was negatively correlated ($r = -.03$) with the cyberloafing frequency, however, only at a very insignificant degree, which casts doubt on Hypothesis 4b.

Extraversion was negatively correlated with both measures of cyberloafing, which did not support Hypothesis 4c. Interestingly, extraversion was not significantly correlated with any of the cyberloafing items that dealt with communication or social interaction (items: 7, 8, 9, 13, 14,

18, 19, 20, 21, 22). Openness to experience overall had a very small correlation ($r = -.148$) with the cyberloafing frequency ($p = .301$), however, it had a significant negative correlation ($r = -.377, p = .006$) with how many minutes the participant cyberloafs each day. With this differing information, Hypothesis 4d is both supported and not supported. Agreeableness demonstrated an insignificant correlation ($p = .071$) with cyberloafing frequency, but a significant correlation ($p = .022$) with how many minutes the participant cyberloafs each day. Similar to openness to experience, agreeableness could influence the two factors of cyberloafing differently, and more data could help investigate the difference.

Table 6.
Personality Factors and Cyberloafing Correlations.

	Cyberloafing Frequency	Cyberloafing Minutes/Day
Conscientiousness	-.56**	-.13
Emotional Stability	-.03	.20
Extraversion	-.14	-.18
Openness	-.15	-.38**
Agreeableness	-.26	-.32*

** $p < .01$, * $p < .05$

Predicting cyberloafing through multiple regression. Multiple linear regression analysis was used to develop a model for predicting the participants' cyberloafing frequency from their score on each personality construct (extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience). Basic descriptive statistics and regression coefficients are shown in Table 7. Only conscientiousness had a significant ($p < .01$) zero-order correlation and partial effects with cyberloafing frequency. The five predictor model was able to account for 36.3% of the variance in cyberloafing frequency, $F(5, 45) = 5.139, p = .001, R^2 = .363, 90\% CI [.21, .52]$.

As seen in Table 7, the beta weights for emotional stability ($\beta = .152$), and conscientiousness ($\beta = -.569$) fall outside of their respective ranges of zero to their correlation with cyberloafing frequency (emotional stability: $r = -.027$, conscientiousness: $r = -.563$), (Cohen & Cohen, 1975). Since emotional stability has a very small correlation ($r = -.027$) with cyberloafing frequency, classical suppression is taking place in the form of emotional stability suppressing irrelevant variance in conscientiousness. Based on this analysis, conscientiousness is the best predictor of cyberloafing frequency from the five factor model of personality. In order to better predict cyberloafing frequency, other indicators are investigated and added to the multiple linear regression model.

Table 7.
Predicting Cyberloafing Frequency with Personality.

Variable	Zero-Order r						β	sr^2	b
	OTE	ES	CON	AGR	EXT	CLF			
EXT						-.144	.015	.000	.019
AGR					.435**	-.255	-.131	.013	-.196
CON				.207	.155	-.563**	-.569**	.285	-.873
ES			.274	.010	.121	-.027	.152	.020	.202
OTE		.215	.102	.131	.292*	-.148	-.110	.011	-.217
									Intercept = 65.39
Mean	38.98	36.39	39.76	38.37	31.72	22.67			
SD	4.61	6.90	5.99	6.15	7.19	9.19	$R^2 =$.363	

* $p < .05$, ** $p < .01$

Note. EXT = Extraversion, AGR = Agreeableness, CON = Conscientiousness, ES = Emotional Stability, OTE = Openness to Experience, CLF = Cyberloafing Frequency.

The three components of organizational commitment (affective, continuance, and normative) were used as predictors in a multiple linear regression analysis to see how well they predict cyberloafing frequency. As seen in Table 8, none of the organizational commitment components had significant zero-order correlations or partial effects. Although they were not significant, both affective commitment and normative commitment were negatively correlated (r

= -.192, -.233) with cyberloafing frequency while continuance commitment was positively correlated ($r = .183$). The three predictor model was able to account for 12.1% of the variance in cyberloafing frequency, $F(3, 47) = 2.156, p = .106, R^2 = .121, 90\% CI [-.01, .25]$.

Table 8.
Predicting Cyberloafing Frequency with Organizational Commitment.

Variable	Zero-Order r				β	sr^2	b
	NC	CC	AC	CLF			
AC				-.192	.078	.002	.129
CC			.124	.183	.272	.067	.525
NC		.266	.822**	-.233	-.370	.040	-.670
						Intercept =	23.67
Mean	18.75	17.22	19.37	22.67			
SD	5.08	4.76	5.57	9.19	$R^2 =$.121	

* $p < .05$, ** $p < .01$

Note. AC = Affective Commitment, CC = Continuance Commitment, NC = Normative Commitment, CLF = Cyberloafing Frequency.

To expand on predictors of cyberloafing frequency, the components used in the previous two models were combined into a single multiple linear regression. As shown in Table 9, conscientiousness had the only significant zero-order correlation as well as the only significant partial effect. The eight predictor model accounted for 39.1% of the variance in cyberloafing frequency, $F(8, 42) = 3.369, p = .005, R^2 = .391, 90\% CI [.25, .53]$. Adding the three components of organizational commitment lead to an increase of 2.8% in overall R^2 .

Table 9.
Predicting Cyberloafing Frequency with Personality and Organizational Commitment.

Variable	Zero-Order <i>r</i>									β	<i>sr</i> ²	<i>b</i>
	NC	CC	AC	OTE	ES	CON	AGR	EXT	CFL			
EXT									-.144	.012	.000	.016
AGR								.435**	-.255	-.135	.014	-.201
CON							.207	.155	-.563**	-.527**	.212	-.809
ES						.274	.010	.121	-.027	.173	.024	.231
OTE					.215	.102	.131	.292*	-.148	-.111	.011	-.220
AC				.076	.223	.289*	.311*	.357*	-.192	.018	.000	.030
CC			.124	-.065	-.184	-.121	.107	.061	.183	.179	.027	.346
NC		.266	.822**	-.044	.042	.339*	.323*	.245	-.233	-.089	.002	-.162
										Intercept = 58.69		
Mean	18.75	17.22	19.37	38.98	36.39	39.76	38.37	31.72	22.67			
SD	5.08	4.76	5.57	4.61	6.90	5.99	6.15	7.19	9.19	$R^2 = .391$		

* $p < .05$, ** $p < .01$

Note. EXT = Extraversion, AGR = Agreeableness, CON = Conscientiousness, ES = Emotional Stability, OTE = Openness to Experience, AC = Affective Commitment, CC = Continuance Commitment, NC = Normative Commitment, CFL = Cyberloafing Frequency.

As seen in Table 1, age was the second highest correlated ($r = -.462, p = .001$) variable with cyberloafing frequency after conscientiousness. Age was added to the previous regression model, and had a significant ($p < .01$) zero-order correlation as well as significant ($p < .01$) partial effect. Conscientiousness continued to be a significant zero-order correlation, and partial effect. As seen in Table 10, the nine predictor model was able to account for 55.8% of the variance in cyberloafing frequency, $F(9, 41) = 5.753, p < .000, R^2 = .558, 90\% CI [.44, .68]$. Adding age to the previous model results in an increase of 16.7% in R^2 .

Table 10.
Predicting Cyberloafing Frequency with Personality, Organizational Commitment, and Age.

Variable	Zero-Order <i>r</i>										β	<i>sr</i> ²	<i>b</i>
	Age	NC	CC	AC	OTE	ES	CON	AGR	EXT	CFL			
EXT										-.144	.020	.000	.026
AGR									.435**	-.255	-.098	.007	-.147
CON								.207	.155	-.563**	-.491**	.183	-.754
ES						.274	.010	.121	-.027	.209	.034	.279	
OTE						.215	.102	.131	.292*	-.148	.007	.000	.013
AC					.076	.223	.289*	.311*	.357*	-.192	.036	.000	.060
CC				.124	-.065	-.184	-.121	.107	.061	.183	.262	.056	.507
NC			.266	.822**	-.044	.042	.339*	.323*	.245	-.233	-.082	.002	-.149
Age		.147	.164	.169	.296*	.138	.143	.179	.182	-.462**	-.446**	.167	-.315
													Intercept = 51.63
Mean	37.82	18.75	17.22	19.37	38.98	36.39	39.76	38.37	31.72	22.67			
SD	13.00	5.08	4.76	5.57	4.61	6.90	5.99	6.15	7.19	9.19			<i>R</i> ² = .558

p* < .05, *p* < .01

Note. EXT = Extraversion, AGR = Agreeableness, CON = Conscientiousness, ES = Emotional Stability, OTE = Openness to Experience, AC = Affective Commitment, CC = Continuance Commitment, NC = Normative Commitment, CFL = Cyberloafing Frequency.

CHAPTER IV: DISCUSSION

Hypotheses 2a, 2b, 3a, 3b, 3c, and 4a were supported in the current study, however, Hypotheses 1, 4b, 4c, 4d, and 4e were not supported. Although cyberloafing behaviors did not group into three distinct categories as hoped in Hypothesis 1, they did cluster together into two groups based upon how frequently they are performed. Out of all the possible variables, only conscientiousness and age were significantly correlated with cyberloafing frequency.

Interestingly, conscientiousness was not significantly correlated with the amount of time the participant would cyberloaf each day, whereas agreeableness, openness to experience, and age were. The three components of organizational commitment were not significantly correlated with cyberloafing frequency or the minutes spent cyberloafing each day. Cumulatively, the three commitment components accounted for 12.1% of the variance in cyberloafing frequency.

Finally, a model including the five factors of personality, the three components of commitment, and age was able to account for 55.8% of the variance in cyberloafing frequency.

Implications of Results

In contrast with previous research, the cyberloafing behaviors did not group together by similarity in content, such as e-mail activities and web-browsing. It is possible that there were not enough participants in the study to have a broad enough representation of each behavior. Several of the items were heavily skewed positively or negatively with some of the item options never being selected. A larger and more diverse sample may lead to different groupings of behaviors. Although the present study's hypothesis was not supported, grouping different cyberloafing behaviors by how frequently they are performed can be seen as meaningful information. For example, an organization may use those groupings to determine which

behaviors they should focus on when conducting employee training or writing a computer use policy.

In terms of perceived acceptance of the different cyberloafing behaviors, the present results are consistent with previous research. Certain behaviors, such as making personal phone calls, sending/receiving personal text messages, and checking/sending/receiving personal e-mails have consistently been perceived as more acceptable to employees than other behaviors across studies. However, it is worth noting that even the highest accepted behaviors are generally ranked as close to “Neutral,” or “Slightly Acceptable.” Even though they are perceived as more acceptable than other behaviors, they are not on the extreme end of being totally accepted, and there are several individuals who see them as being unacceptable. It is not known how many different organizations the participants in the current study were working at besides the 16 ECU faculty members. There could be differences in what behaviors are perceived as acceptable depending upon each organization’s technology use policies or nature of their work. A larger sample of participants and organizations could also lead to more generalizable results.

Although the results of the current study’s analysis on organizational commitment and cyberloafing cannot be easily compared to previous research, the direction of the relationships potentially provides an insight to future research. Affective and normative commitment were negatively correlated while continuance commitment was positively correlated with cyberloafing. Normative commitment had the strongest correlation ($r = -.233, p = .100$) with cyberloafing frequency than affective commitment ($r = -.192, p = .177$), and continuance commitment ($r = .183, p = .198$). This suggests that employees who feel obligated to stay with an organization and/or have a positive emotional bond to their organization are less likely to cyberloaf than those who stay with the organization due to the costs of leaving. Normative and

affective commitment have both been positively correlated with cooperation in an organization, which means they could be cooperating with a technology use policy or other rules that influence their cyberloafing behaviors. They may also internalize their organization's goals and interests that could lead to them perceiving cyberloafing as something detrimental to those goals and interests. Overall, their correlations may not have been significant, but the direction of the relationships are informative, and it is possible that a larger sample size may lead to a change in significance.

As found in previous research (Andreassen et al., 2014), employees who are conscientious are significantly ($r = -.563, p < .000$) less likely to cyberloaf, however, the relationship of emotional stability, extraversion, openness to experience, and agreeableness with cyberloafing was different than previous research results (Jia et al., 2013; O'Neil et al., 2014). Participants who scored highly in conscientiousness and would be described as hardworking, dutiful, organized, and self-disciplined are less likely to cyberloaf than those who are disorganized, not productive, and not driven to succeed. Interestingly, emotional stability was far from being significantly correlated ($r = -.027, p = .850$), which would suggest that there is no difference in cyberloafing between those who often experience negative emotions, such as stress, and being unstable, and those who do not.

Extraversion was not found to be significantly correlated with cyberloafing frequency, minutes spent cyberloafing each day, or any of the individual cyberloafing behaviors besides "Browse entertainment-related Web sites." These findings are not in line with previous research that individuals who are gregarious, friendly, and socially engaged cyberloaf more than those who are not, however, it is possible that our participants were part of organizations that may have

been more conducive for other forms of loafing (e.g., social loafing) instead of cyberloafing (Andreassen et al., 2014, Jia et al., 2013).

Similar to previous research, openness to experience was not significantly correlated ($r = -.148, p = .301$) with cyberloafing frequency, however, openness to experience was significantly negatively correlated ($r = -.377, p = .006$) with how many minutes an individual cyberloafed each day. This indicates that openness to experience influences cyberloafing behaviors and how much time is spent doing those behaviors differently. It is possible that individuals who score high in openness do not cyberloaf frequently, but when they do, they cyberloaf for long periods of time. However, when correlating openness to experience to individual cyberloafing behaviors, none were significantly correlated and the closest positive relationship was to “Chat with other people with instant messenger,” ($r = .105, p = .464$). Although there were 23 different cyberloafing behaviors being measured, it is possible there is a distinctly different behavior that would be significant, but it is more likely that the significant relationship between openness and time spent cyberloafing were spurious in nature.

Agreeableness fell short of being significantly correlated with cyberloafing ($r = -.255, p = .071$). Previous research has found agreeableness to be significantly correlated as well as not significantly correlated with cyberloafing (Jia et al., 2013; O’Neil et al., 2014). It is possible that with a larger sample, there could be a change in significance. Since the correlation was negative, the results suggest that individuals who are cooperative, altruistic, and trusting are less likely to cyberloaf. On the surface, it makes sense that an employee who is trusting and cooperative would be less likely to engage in a behavior that would potentially breach an organization’s trust or policy.

As seen in previous research, age was significantly correlated with cyberloafing ($r = -.462, p = .001$). The older an employees are, the less likely they are to cyberloaf. This could be due to work ethics from older generations or general technology use and understanding. Younger individuals tend to be more experienced with newer technologies that make several of these cyberloafing behaviors possible, which may be responsible for their increased use. As seen in the multiple regression models, age and conscientiousness are the strongest predictors of cyberloafing frequency. A multiple linear regression model predicting cyberloafing frequency with only conscientiousness and age would account for 46.6% of the variance. In comparison, the full model displayed in Table 10 accounts for 55.8% of the variance in cyberloafing frequency with nine predictor variables.

Limitations and Future Research

The purpose of the current study was to examine the relationship of personality, and organizational commitment with cyberloafing, and most of the results were congruent with previous research. Unfortunately, the limited sample size ($N = 51$) may have limited our insight of the true relationship of these variables. Cyberloafing can also be considered a sensitive topic to employees and organizations alike. Several organizations have established policies regarding computer use and a rigid set of punishments alongside them. Regardless of the confidentiality notice at the beginning of the survey, some potential participants may view their involvement with a survey that asks them to detail their cyberloafing as a threat to their job security. This is especially true with the ECU faculty participants since the current research was being conducted at their same place of employment. Although responses were anonymous, the fear of their information being traced back to them may have decreased the probability of them participating. One of the ECU faculty members voiced concern that although it was anonymous, his or her

tenure, race, and age would be unique enough to easily identify him or her. It is also possible that participants intentionally skewed their responses to what an organization would prefer.

The two sources of participants (ECU College of Business graduate students; ECU faculty) may have held different positions that would be difficult to generalize to other organizations. ECU faculty positions are not the standard 40 hours a week occupation with rigid hours. Instead, ECU faculty have varying hours based upon the needs of their peers, students, projects, and so forth. It is easier to define cyberloafing as computer use when on the clock at a 9:00 a.m. to 5:00 p.m. office position whereas occupations that do not work on structured hours have a gray area.

With the prevalent use of technology in the workplace, cyberloafing is and will continue to be an important area of research. Due to technology evolving over time, it is important for future research to create measures that encompass all possible cyberloafing behaviors. Beyond computer use, various cellular phone use behaviors should be included as well as free response items for participants to provide other cyberloafing behaviors.

For a more in-depth analysis of behaviors, participants could be asked how many minutes they perform each individual behavior instead of a daily average and a rating scale for each item. Participants could be asked to provide their general position title in order to create categories of positions. By grouping all service-related, managerial, or other positions together, the results of analyses would be more generalizable to those specific job groups. The same could be done with how many hours per week the participant works.

Conclusions

The current research investigated the relationship of personality and organizational commitment with workplace cyberloafing behaviors. Although not all analyses were significant,

the direction of the correlation for each personality factor and organizational commitment with cyberloafing was established. The results showed conscientiousness and age as being the strongest predictors of cyberloafing frequency. A model including all personality factors, commitment components, and age was created, and accounted for 55.8% of the variance in cyberloafing.

Cyberloafing items clustered together in two groups based upon how frequently or infrequently they were performed. Items such as viewing news, sports, social media, entertainment, and non-work related websites as well as checking/receiving/sending personal e-mail was perceived as more acceptable than playing games, and downloading non-work-related content. Although not significant, affective and normative commitment were negatively correlated while continuance commitment was positively correlated with cyberloafing. As seen in previous research, scoring high in conscientiousness was significantly related with lower cyberloafing frequency. Participants who scored high in agreeableness, openness to experience, extraversion, and emotional stability were all correlated with cyberloafing less frequently, however, the correlation fell short of being significant. Overall, conscientiousness and age were the strongest predictors of whether or not an employee is likely to cyberloaf.

References

- Aalberts, R. J., Hames, D. S., & Thistle, P. D. (2009). Detours and frolics on the Internet: Employer liability and management control of cybertorts. *Journal of Business Research*, *62*, 1335-1341. doi:10.1016/j.jbusres.2008.12.005
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, *63*, 1-18. doi:10.1111/j.2044-8325.1990.tb00506.x
- Andreassen, C., Torsheim, T., & Pallesen, S. (2014). Predictors of use of social network sites at work - a specific type of cyberloafing. *Journal of Computer-Mediated Communication*, *19*, 906-921. doi:10.1111/jcc4.12085
- Barlow, J., Bean, L., & Hott, D. D. (2003). Employee “spy” software: Should you use it? *Journal of Corporate Accounting & Finance*, *14*, 7-12.
- Barrick, M. R., & Mount M. K. (1991). The Big Five Personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, *44*, 1-26.
- Behling, O. (1998). Employee selection: will intelligence and conscientiousness do the job? *Academy of Management Executive*, *12*, 77-86.
- Blanchard, A. L., & Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers In Human Behavior*, *24*, 1067-1084. doi:10.1016/j.chb.2007.03.008
- Blau, G., Yang, Y., & Ward-Cook, K. (2006). Testing a measure of cyberloafing. *Journal of Allied Health*, *35*, 9-17.
- Cohen, J., & Cohen, P. (1975). *Applied multiple regression/correlation for the behavioral sciences*. New York, NY: Wiley.

- Conlin, M. (2000, June 12). Workers, surf at your own risk. *Business Week*, pp. 105-106.
- Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: a meta-analysis. *Personality and Individual Differences*, *29*, 265-281.
- Costa, P. T. (1996). Work and personality: Use of the NEO-PI-R in Industrial/Organisational Psychology. *Applied Psychology: An International Review*, *45*, 225-241.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*, 297-334.
- Darviri, S. V., & Woods, S. A. (2006). Uncertified absence from work and the Big Five: An examination of absence records and future absence intentions. *Personality And Individual Differences*, *41*, 359-369. doi:10.1016/j.paid.2006.02.003
- DeShong, H. L., Grant, D. M., & Mullins-Sweatt, S. N. (2015). Comparing models of counterproductive workplace behaviors: The Five-Factor Model and the Dark Triad. *Personality and Individual Differences*, *74*, 55-60. doi:10.1016/j.paid.2014.10.001
- Digman, J. M., & Takemoto-Chock, N. K. (1981). Factors in the natural language of personality: Re-analysis, comparison, and interpretation of six major studies. *Multivariate Behavioral Research*, *16*, 149-170. doi:10.1207/s15327906mbr1602_2
- Emmons, R. A., Diener, E., & Larsen, R. J. (1985). Choice of situations and congruence models of interactionism. *Personality and Individual Differences*, *6*, 693-702. doi:10.1016/0191-8869(85)90080-7
- Fazekas, C. P. (2004). 1984 is still fiction: Electronic monitoring in the workplace and U.S. privacy law. *Duke Law and Technology Review*, *2004*, 15-15.
- Fox, A. (2010). Taking up slack. *HR Magazine*, *55*, 26-31.

- Furnham, A., & Bramwell, M. (2006). Personality Factors Predict Absenteeism in the Workplace. *Individual Differences Research, 4*, 68-77.
- Furnham, A., & Fudge, C. (2008). *Journal of Individual Differences, 29*, 11-16.
- Garrett, R., & Danziger, J. N. (2008). On cyberslacking: Workplace status and personal internet use at work. *Cyberpsychology & Behavior, 11*, 287-292. doi:10.1089/cpb.2007.0146
- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality, 40*, 84-96.
- Harris, G. E., & Cameron, J. E. (2005). Multiple dimensions of organizational identification and commitment as predictors of turnover intentions and psychological well-being. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement, 37*, 159-169. doi:10.1037/h0087253
- Hartman, R. O., & Betz, N. E. (2007). The Five-Factor Model and career self-efficacy: General and domain-specific relationships. *Journal of Career Assessment, 15*, 145-161.
- Henle, C. A., & Blanchard, A. L. (2008). The interaction of work stressors and organizational sanctions on cyberloafing*. *Journal of Managerial Issues, 20*, 383-400,293.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology, 87*, 474-487. doi:10.1037/0021-9010.87.3.474
- Hogan, J., & Hogan, R. (1992). *Hogan Personality Inventory manual*. Tulsa, OK: Hogan Assessment Systems.
- Hough, L. M. (1992). The "Big Five" Personality variables- Construct confusion: Description versus prediction. *Human Performance, 5*, 139-155.

- Ilies, R., & Judge, T. A. (2003). On the heritability of job satisfaction: The mediating role of personality. *Journal of Applied Psychology, 88*, 750-759.
- Jia, H., Jia, R., & Karau, S. (2013). Cyberloafing and personality: The impact of the Big Five traits and workplace situational factors. *Journal of Leadership & Organizational Studies, 20*, 358-365. doi:10.1177/1548051813488208
- Judge, T. A., Martocchio, J. J., & Thoresen, C. J. (1997). Five-Factor Model of Personality and employee absence. *Journal of Applied Psychology, 82*, 745-755.
- Judge, T. A., & Bono, J. E. (2000). Five-Factor Model of Personality and transformational leadership. *Journal of Applied Psychology, 85*, 751-765.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-Factor Model of Personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology, 87*, 530-541.
- Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., & Crawford, E. R. (2013). Hierarchical representations of the Five-Factor Model of Personality in predicting job performance: Integrating three organizing frameworks with two theoretical perspectives. *Journal of Applied Psychology*. Advance online publication. doi: 10.1037/a0033901.
- Judge, T. A., Simon, L. S., Hurst, C., & Kelley, K. (2013). What I experienced yesterday is who I am today: Relationship of work motivations and behaviors to within-individual variation in the Five-Factor Model of Personality. *Journal of Applied Psychology*, doi:10.1037/a0034485
- Lee, K., Carswell, J. J., & Allen, N. J. (2000). A meta-analytic review of occupational commitment: Relations with person- and work-related variables. *Journal of Applied Psychology, 85*, 799-811. doi:10.1037/0021-9010.85.5.799

- Lim, V. G. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organizational Behavior*, 23, 675-694.
doi:10.1002/job.161
- Lim, V. G., & Chen, D. Q. (2012). Cyberloafing at the workplace: Gain or drain on work? *Behaviour & Information Technology*, 31, 343-353.
doi:10.1080/01449290903353054
- Lim, V. K. G., & Teo, T. S. H. (2005). Prevalence, perceived seriousness, justification, and regulation of cyberloafing in Singapore: An exploratory study. *Information and Management*, 42, 1081-1093. doi:10.1016/j.im.2004.12.002.
- Luchak, A. A., & Gellatly, I. R. (2007). A comparison of linear and nonlinear relations between organizational commitment and work outcomes. *Journal of Applied Psychology*, 92, 786-793. doi:10.1037/0021-9010.92.3.786
- McCrae R. (2002). NEO-PI-R data from 36 cultures: Further intercultural comparisons. *The Five-Factor model of personality across cultures* [e-book]. New York, NY, US: Kluwer Academic/Plenum Publishers; 2002:105-125. Ipswich, MA.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the Five-Factor Model of Personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.
- McCrae, R. R., & Costa, P. T. (1991). Adding Liebe und Arbeit: The Full Five-Factor Model and well-being. *Personality and Social Psychology Bulletin*, 17, 227-232.
- McCrae, R. R., & John, O. P. (1992). An Introduction to the Five-Factor Model and its applications. *Journal of Personality*, 60, 175-215. doi:10.1111/j.1467-6494.1992.tb00970.x

- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*, 538-551. doi:10.1037/0021-9010.78.4.538
- Meyer, J. P., Paunonen, S. V., Gellatly, I. R., Goffin, R. D., & Jackson, D. N. (1989). Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology, 74*, 152-156. doi:10.1037/0021-9010.74.1.152
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20-52. doi:10.1006/jvbe.2001.1842
- O'Connor, B. P. (2000). SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test. *Behavior Research Methods, Instruments & Computers, 32*, 396-402. doi:10.3758/BF03200807
- O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences, 43*, 971-990.
- O'Neill, T. A., Hambley, L. A., & Bercovich, A. (2014). Prediction of cyberslacking when employees are working away from the office. *Computers in Human Behavior, 34*, 291-298. doi:10.1016/j.chb.2014.02.015
- Panaccio, A., & Vandenberghe, C. (2012). Five-factor model of personality and organizational commitment: The mediating role of positive and negative affective states. *Journal of Vocational Behavior, 80*, 647-658. doi:10.1016/j.jvb.2012.03.002
- Paunonen, S. V., & Jackson, D. N. (2000). What is beyond the Big Five? Plenty! *Journal of Personality, 68*, 821-835. doi:10.1111/1467-6494.00117

- Piotrowski, C. (2012). Cyberloafing: A content analysis of the emerging literature. *Journal of Instructional Psychology, 39*, 259-261.
- Rousseau, V., & Aubé, C. (2010). Social support at work and affective commitment to the organization: The moderating effect of job resource adequacy and ambient conditions. *Journal of Social Psychology, 150*, 321-340.
- Salgado, J. F. (1997). The Five Factor Model of Personality and job performance in the European community. *Journal of Applied Psychology, 82*, 30-43.
- Salgado, J. F. (2002). The Big Five personality dimensions and counterproductive behaviours. *Journal of Selection and Assessment, 10*, 117-125.
- Seibert, S. E., & Kraimer, M. L. (2001). The Five-Factor Model of Personality and career success. *Journal of Vocational Behavior, 58*, 1-21.
- Sharma, S. K., & Gupta, J. N. D. (2004). Improving workers' productivity and reducing internet abuse. *The Journal of Computer Information Systems, 44*, 74-78.
- Smith, W. P., & Tabak, F. (2009). Monitoring employee E-mails: Is there any room for privacy? *The Academy of Management Perspectives, 23*, 33-48. doi:10.5465/AMP.2009.45590139
- Turban, D. B., & Dougherty, T. W. (1994). Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal, 37*, 688-702. doi:10.2307/256706
- Ugrin, J. C., & Michael Pearson, J. J. (2013). The effects of sanctions and stigmas on cyberloafing. *Computers in Human Behavior, 29*, 812-820.
doi:10.1016/j.chb.2012.11.005
- Vernon, R. (2012). What Happened To The Good Old Days When Employees... Retrieved from <http://www.lerchearly.com/publications/259-whatever-happened-good-old-days-employees>

- Viswesvaran, C. (2002). Absenteeism and measures of job performance: A meta-analysis. *International Journal of Selection & Assessment*, *10*, 12.
- Vitak, J., Crouse, J., & LaRose, R. (2011). Personal internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, *27*, 1751-1759.
doi:10.1016/j.chb.2011.03.002
- Wagner, D. T., Barnes, C. M., Lim, V. G., & Ferris, D. L. (2012). Lost sleep and cyberloafing: Evidence from the laboratory and a daylight saving time quasi-experiment. *Journal of Applied Psychology*, *97*, 1068-1076. doi:10.1037/a0027557
- Widiger, T. A., & Lowe, J. R. (2007). Five-Factor Model assessment of personality disorder. *Journal of Personality Assessment*, *89*, 16-29.
- Witt, L. A., Burke, L. A., Barrick, M. A., & Mount, M. K. (2002). The interactive effects of conscientiousness and agreeableness on job performance. *Journal of Applied Psychology*, *87*, 164-169. doi:10.1037/0021-9010.87.1.164
- Zhang, J., & Zheng, W. (2009). How does satisfaction translate into performance? An examination of commitment and cultural values. *Human Resource Development Quarterly*, *20*, 331-351. doi:10.1002/hrdq.20022
- Zhao, H., & Seibert, S. E. (2006). The Big Five personality dimensions and entrepreneurial status: A meta-analytic review. *Journal of Applied Psychology*, *91*, 259-271.

Appendix A: Personality Factors and Sub-facets

NEO Facet	Description
Conscientiousness	
Competence	Sense that one is adept, prudent, and sensible
Order	Neat, tidy, and well-organized; methodical
Dutifulness	Governed by conscience; ethical; fulfill moral obligations
Achievement striving	High aspirations and work hard to achieve goals; driven to succeed
Self-discipline	Ability to begin and carry out tasks, self-motivating; persistent.
Deliberation	Ability to think carefully before acting; cautious and deliberate
Agreeableness	
Trust	Belief that others are honest and well intentioned; not skeptical
Straightforwardness	Sincere; unwilling to manipulate through flattery or deception
Altruism	Active concern for other's welfare; helpful; generous, and considerate
Compliance	Cooperative; seek to inhibit aggression; forgiving; mild-mannered
Modesty	Humble and self-effacing
Tender-mindedness	Sympathy for human side of social policies; concerned for others
Neuroticism	
Anxiety	Apprehensive, fearful, prone to worry, tense, jittery
Angry hostility	Quick to anger; easily frustrated and irritated by others; bitter
Depression	Depressive affect, guilt, sadness, hopelessness; prone to dejection
Self-consciousness	Shame and embarrassment, sensitive to ridicule
Impulsiveness	Inability to control cravings or urges; susceptible to temptation
Vulnerability	Susceptibility to experience stress; easily panicked
Openness to experience	
Fantasy	Active imagination; tendency toward daydreaming; lost in thought
Aesthetics	Appreciation for art and beauty, moved by poetry and music
Feelings	Receptive to inner feelings and emotions; empathetic
Actions	Willingness to try different activities; preference for variety to the routine
Ideas	Intellectual curiosity; willingness to consider new ideas
Values	Readiness to reexamine values; liberal; antitradition and antiauthority
Extraversion	
Warmth	Affectionate and friendly; informal and unreserved around others
Gregariousness	Sociable; preference for company of others' "the more the merrier"
Assertiveness	Dominant, forceful, and socially able; take charge and assume leadership
Activity	Prefer fast-paced life; high energy level; vigorous
Excitement-seeking	Crave excitement and stimulation' sensation-seeking
Positive emotions	Experience joy; laugh easily; cheerful and optimistic; high-spirited

Note: Adapted from "Hierarchical representations of the Five-Factor Model of Personality in predicting job performance: Integrating three organizing frameworks with two theoretical perspectives," by Judge, T. A., Rodell, J. B., Klinger, R. L, Simon, L. S., & Crawford, E. R. (2013), *Journal of Applied Psychology*. Advance online publication.

APPENDIX B: COLLEGE OF BUSINESS RECRUITMENT DOCUMENTS
First Recruitment E-mail

Subject: Cyberloafing Survey Participation and \$50 Raffle

Hello Dr. [Name],

My name is Mike Sage and I am writing you to request your assistance in forwarding this e-mail to the students in your graduate-level courses in order to gather data for a very important area of research.

The purpose of this research study is to determine whether organizational commitment and personality factors are correlated with an employee's **cyberloafing** behaviors and perceived organizational acceptance of cyberloafing behaviors. If your students are currently employed, they qualify to take this survey! Their participation would require them to complete a brief online survey, which should take approximately 10-15 minutes to complete.

This study is graduate student research. Therefore, while the survey is asking them questions regarding their work, we would like to point out that at no point in the survey process will any identifying information (e.g., name) be associated with their responses. Participation is voluntary, and all responses to the survey will remain completely anonymous and confidential.

Upon completion of the survey they will be offered a link to submit their contact information to be entered into a **drawing for one of four \$50 prepaid Visa cards**.

We ask that they please fill out this survey by **April 1st**.

If anyone has questions, feel free to contact the study researcher via e-mail. Your assistance is greatly appreciated.

Link to survey: Cyberloafing Survey

Thank you!

Mike Sage
Graduate Student, Industrial/Organizational Psychology
Department of Psychology
East Carolina University
Email: sagem13@students.ecu.edu

Reminder E-mail

Subject: Cyberloafing Survey Participation and \$50 Raffle

Hello Dr. [Name],

I e-mailed you three weeks ago requesting your assistance in forwarding my Cyberloafing Thesis Survey to your graduate students. Due to a shortage of participants (<10), I am asking you to please consider forwarding this information to your graduate students and encouraging them to participate.

Any graduate student who is currently employed is eligible to participate. The survey only takes 10-15 minutes to complete, and after finishing the survey they can enter their contact information to be entered into a **drawing for one of four \$50 prepaid Visa cards**.

If anyone has questions, please feel free to contact me via e-mail. Your assistance is greatly appreciated.

Link to survey: [Cyberloafing Survey](#)

I hope you had a great spring break and have a wonderful rest of the semester!

Thanks again!

Mike Sage
Graduate Student, Industrial/Organizational Psychology
Department of Psychology
East Carolina University
Email: sagem13@students.ecu.edu

APPENDIX C: FACULTY RECRUITMENT DOCUMENTS

First Recruitment E-mail

Subject: Cyberloafing Survey Participation and \$50 Raffle

Hello,

My name is Mike Sage and I am writing you to request your participation in a survey for a very important area of research.

The purpose of this research study is to determine whether organizational commitment and personality factors are correlated with an employee's **cyberloafing** behaviors and perceived organizational acceptance of cyberloafing behaviors. Your participation would require you to complete a brief online survey, which should take approximately 10-15 minutes to complete.

This study is graduate student research. Therefore, while the survey is asking you questions regarding your work, we would like to point out that at no point in the survey process will any identifying information (e.g., name) be associated with your responses. Participation is voluntary, and all responses to the survey will remain completely anonymous and confidential.

Upon completion of the survey you will be offered a link to submit your contact information to be entered into a **drawing for one of four \$50 prepaid Visa cards.**

If you have any questions, please feel free to contact the study researcher via e-mail. Your assistance is greatly appreciated. Thank you.

Link to survey: Cyberloafing Survey

Or copy and paste the URL into your internet browser:

[*Link to survey*]

Thank you!

Mike Sage
Graduate Student, Industrial/Organizational Psychology
Department of Psychology
East Carolina University
Email: sagem13@students.ecu.edu

Reminder E-mail

Subject: Cyberloafing Survey Participations and \$50 Raffle

Hello,

My name is Mike Sage and I contacted you last week requesting your participation in a survey. I understand it is a very busy time of year, but if you could participate in this survey, I would *greatly* appreciate it. If you would rather not participate, this is my last request and you may disregard this notice. Thank you for your time.

The purpose of this research study is to determine whether organizational commitment and personality factors are correlated with an employee's **cyberloafing** behaviors and perceived organizational acceptance of cyberloafing behaviors. Your participation would require you to complete a brief online survey, which should take approximately 10-15 minutes to complete.

This study is graduate student research. Therefore, while the survey is asking you questions regarding your work, we would like to point out that at no point in the survey process will any identifying information (e.g., name) be associated with your responses. Participation is voluntary, and all responses to the survey will remain completely anonymous and confidential.

Upon completion of the survey you will be offered a link to submit your contact information to be entered into a **drawing for one of four \$50 prepaid Visa cards.**

If you have any questions, please feel free to contact the study researcher via e-mail. Your assistance is greatly appreciated. Thank you.

Link to survey: Cyberloafing Survey

Or copy and paste the URL into your internet browser:
[Link to survey]

Thank you!

Mike Sage
Graduate Student, Industrial/Organizational Psychology
Department of Psychology
East Carolina University
Email: sagem13@students.ecu.edu

APPENDIX D: SURVEY INSTRUMENT AND INFORMED CONSENT

Informed Consent

You are being invited to participate in a research study titled "Cyberloafing: A Study of Personality Factors and Organizational Commitment as Predictor Variables of Cyberloafing and Perceived Organizational Acceptance" being conducted by Mike Sage, a graduate student at East Carolina University in the Psychology department. The goal is to survey 400 individuals in/at the ECU College of Business and ECU faculty. The survey will take approximately 10 to 15 minutes to complete. It is hoped that this information will assist us to better understand the relationship between cyberloafing, personality factors, and organizational commitment. The survey is anonymous, so please do not write your name. Your participation in the research is voluntary. You may choose not to answer any or all questions, and you may stop at any time. There is no penalty for not taking part in this research study. Please call Mike Sage at 920-342-0396 for any research related questions or the Office of Research Integrity & Compliance (ORIC) at 252-744-2914 for questions about your rights as a research participant.

Are you currently employed?

- Yes
- No

Please indicate which category you fall into.

- ECU College of Business Graduate Student
- ECU Faculty - with tenure
- ECU Faculty - without tenure
- Other: _____

Please indicate your gender.

- Man
- Woman

Please provide your age (years).

Please indicate your race.

- White
- Hispanic or Latino
- Black or African American
- American Indian or Alaska Native
- Asian Indian
- Asian or Asian American
- Other: _____

How many hours a week do you typically work?

- Less than ten hours
- Ten to twenty hours
- Twenty to thirty hours
- Thirty to forty hours
- Forty to fifty hours
- Fifty hours or more

How many years have you worked at your current place of employment?

How many minutes per day do you typically use technology for personal reasons while you are on the clock at work? Examples include but are not limited to browsing the Internet, using your phone for personal use, viewing Facebook, Tweeting, etc.

In your personal opinion, how many minutes of personal technology use per day is acceptable while on the clock at your organization? Examples include but are not limited to browsing the Internet, using your phone for personal use, viewing Facebook, Tweeting, etc.

APPENDIX E: IRB APPROVAL DOCUMENTATION



EAST CAROLINA UNIVERSITY

University & Medical Center Institutional Review Board Office

4N-70 Brody Medical Sciences Building · Mail Stop 682

600 Moyer Boulevard · Greenville, NC 27834

Office 252-744-2914 · Fax 252-744-2284 · www.ecu.edu/irb

Notification of Exempt Certification

From: Social/Behavioral IRB

To: [Mike Sage](#)

CC: [John Cope](#)

Date: 2/23/2015

Re: [UMCIRB 15-000197](#)

Cyberloafing: A Study of Personality Factors and Organizational Commitment as Predictor Variables of Cyberloafing and Perceived Organizational Acceptance.

I am pleased to inform you that your research submission has been certified as exempt on 2/21/2015. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418

IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418





EAST CAROLINA UNIVERSITY

University & Medical Center Institutional Review Board Office

4N-70 Brody Medical Sciences Building · Mail Stop 682

600 Moye Boulevard · Greenville, NC 27834

Office 252-744-2914  · Fax 252-744-2284  · www.ecu.edu/irb

Amendment Approved

ID: [Ame1_UMCIRB 15-000197](#)

Title: Amendment 1 for IRB Study #UMCIRB 15-000197

Description: Your amendment has been approved. To navigate to the project workspace, click on the above ID.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418

IRB00003781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418