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Personality and Motivational Characteristics of the Successful Mentor

by

Lizzette Lima

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
Department of Psychology
College of Arts and Sciences
University of South Florida

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Dedication

I would like to dedicate this dissertation to my beloved family and friends who have continued to support me in my efforts to attain a truly wonderful education and an advanced degree from the University of South Florida. Through the trials and tribulations which I have suffered through, of which there were many, my loving and supporting parents, Octavio and Geny Lima, my beloved siblings, Danny, Gabby, and Kiki, my wonderful and adoring husband, Brad Schneider, and my warm and caring in-laws, Shelly and Marlene Schneider, have always been there when I needed them. I honestly could not have completed this task without knowing that they were behind me, every step of the way. I would also like to dedicate this dissertation to my beloved grandparents. My grandfather would have cried with joy to see his oldest granddaughter achieve a dream so far and vast from what he had known throughout his life. I love you all very much and would like to dedicate this dissertation and my Ph.D. to all of you!

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Table of Contents

List of Tables…… iii

List of Figures…….. vi

Abstract…….vii

Chapter One…….. 1
Introduction……...1
Theoretical Background……4
Literature Review and Hypothesis Development……. 13
Intrinsic Motivation and Career Mentoring……. 13
Intrinsic Motivation and Psychosocial Mentoring …….. 17
Intrinsic Motivation and Intrinsic Satisfaction Motive…….19
Learning Goal Orientation and Career Mentoring……20
Learning Goal Orientation and Intrinsic Satisfaction Motive.. 25
Conscientiousness and Career Mentoring…….26
Conscientiousness and Benefit Others Motive……. 30
Agreeableness and Psychosocial Mentoring…….32
Agreeableness and Benefit Others Motive……... 34
Extraversion and Psychosocial Mentoring……36
Extraversion and Benefit Others Motive…….. 39
Machiavellianism and Psychosocial Mentoring……... 40
Machiavellianism and Self-Enhancement Motive…… 42
Machiavellianism and Benefit Others Motive…….. 43
Motives to Mentor Related to Mentoring Functions……44
Mentoring Functions and Outcomes for the Protégé ……... 45

Chapter Two……. 47
Method…….. 47
Participants……47
Procedure…….. 48
Mentor Orientation……48
Protégé Orientation……... 49
Mentoring Sessions……...49
Measures……... 51
Mentor Measures…….. 51
Learning Goal Orientation…… 51

Intrinsic Motivation…….. 52
Machiavellianism……..52
NEO Five Factor Inventory……...53
Motives to Mentor…… 54
Protégé Measures……..56
School Stress……56
Physical Symptoms of Stress……57
School Self-Efficacy……57
Desire to Continue Mentoring Relationship……57
Satisfaction with the Mentoring Relationship…….. 57
Shared Measures……... 58
Mentoring Functions……58

Chapter Three …….. 63
Results…….. 63
Hypothesis Testing……63
Hypothesis 18……... 66
Exploratory Regression Tests…….. 69

Chapter Four……. 71
Discussion……71
Theoretical and Practical Implications……. 76
Limitations……..... 82
Conclusion…… 85

References……121

Appendices……140
Appendix A: Recruitment Scripts for Mentors and Protégés……140
Appendix B: Mentor Handbook……145
Appendix C: Mentor Orientation Script……167
Appendix D: NAVAIR Informed Consent Form……172
Appendix E: UCF Code of Conduct Form……176
Appendix F: Mentor Time 1 Measures……..178
Appendix G: Protégé Handbook……186
Appendix H: Protégé Orientation Script……198
Appendix I: Protégé Time 1 Measures……..202
Appendix J: Experimental Scripts for Sessions 1, 2, 3 and 4……207
Appendix K: Mentor Time 2 Measures……..217
Appendix L: Protégé Time 2 Measures……..220
Appendix M: Additional Measures……228
Appendix N: Mentoring Coding Scheme……238

About the Author……End Page

List of Tables

Table 1 Demographic Frequencies for Mentors…… 86

Table 2 Demographic Frequencies for Protégés…… 87

Table 3 Intercorrelations Among Study Variables…… 88

Table 4 Descriptive Statistics for Study Variables…… 91

Table 5 Factor Loadings of Motive to Mentor Items…… 92

Table 6 Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)…… 93

Table 7 Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)…….. 94

Table 8 Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)…….. 95

Table 9 Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)…… 96

Table 10 Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)…….. 97

Table 11 Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)……...98

Table 12 Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……... 99

Table 13 Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……100

Table 14 Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……101

Table 15 Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……... 102

Table 16 Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……. 103

Table 17 Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)……. 104

Table 18 Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)…… 105

Table 19 Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)…… 106

Table 20 Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)…… 107

Table 21 Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)…… 108

Table 22 Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)…….. 109

Table 23 Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)……. 110

Table 24 Exploratory Regression Analysis for Independent Variables Predicting Mentor Ratings of Career Development (N=91)…… 111

Table 25 Exploratory Regression Analysis for Independent Variables Predicting Protégé Ratings of Career Development (N=91)…… 112

Table 26 Exploratory Regression Analysis for Independent Variables Predicting Independent Rater Ratings of Career Development (N=90)…… 113

Table 27 Exploratory Regression Analysis for Independent Variables Predicting Mentor Ratings of Psychosocial Mentoring (N=90)……... 114

Table 28 Exploratory Regression Analysis for Independent Variables Predicting Protégé Ratings of Psychosocial Mentoring (N=90)……...115

Table 29 Exploratory Regression Analysis for Independent Variables Predicting Independent Rater Ratings of Psychosocial Mentoring (N=89)…….116

Table 30 Exploratory Regression Analysis for Independent Variables Predicting Intrinsic Satisfaction Motive to Mentor (N=91)……. 117

Table 31 Exploratory Regression Analysis for Independent Variables Predicting Benefit Others Motive to Mentor (N=90)……... 118

Table 32 Support for Hypothesis Tests……119

List of Figures

Figure 1. Model of Proposed Relationship Between Mentor's Personality Traits, Motives to Mentor, Mentoring Functions and Outcomes for the Protégé…….. 13

Personality and Motivational Characteristics of the Successful Mentor

Lizzette Lima

ABSTRACT

The purpose of this study was to investigate the relationship between mentor characteristics (i.e., motivational tendencies, personality traits), mentoring provided, and protégé outcomes. A motivational approach was taken, in the sense that motives to mentor, as well as personality characteristics of the mentor, were considered in regard to their ability to predict the type of mentoring provided and outcomes for the protégé. Specifically, the potential relationships between personality traits (Intrinsic Motivation, Learning Goal Orientation, Conscientiousness, Extraversion, Agreeableness, and Machiavellianism) and mentor motives, as well as the provision of career and psychosocial mentoring, were examined. In addition, the current study examined the ability of mentor characteristics to predict several protégé outcomes.

Ninety-one mentors (i.e., college juniors and seniors) were paired with 91 protégés (i.e., college freshmen) and were asked to meet for a half hour each week for four consecutive weeks. Self-report measures were collected from both mentors and protégés before the mentoring sessions began (T1) and after (T2) they were completed to determine the effect of having a mentor on various outcomes. All mentoring sessions were videotaped so that trained raters could code the type of mentoring behaviors that

occurred within a given session. Results were analyzed via correlational analyses, exploratory regression analyses, and hierarchical regression analyses.

Individuals who were generally more intrinsically motivated and learning goal oriented reported being more motivated to mentor others for intrinsic satisfaction reasons. Mentors who were more extraverted and agreeable than their peers reported being more motivated to mentor in order to benefit others. In addition, having a mentor who provided career mentoring reduced school-related stress for a protégé.

The key findings of the current study provide support for the view that personality and motivational characteristics of the mentor affect the type of mentoring provided, albeit indirectly in some cases. In addition, it is important to consider multiple sources of mentoring data provided (i.e., mentor, protégé, independent rater) rather than just the protégé's point of view because this will provide a more well-rounded picture of the mentoring relationship, as well as identify potential gaps in perception that may exist between mentors and protégés.

Chapter 1

Introduction

Throughout the past few decades, many organizations have recognized the value of initiating programs to facilitate successful mentoring among their employees. Mentoring programs within organizations can either be aimed at fostering spontaneous, informal mentoring relationships that are not monitored by the organization or they may involve assignment or matching of mentors and protégés as part of a formal mentor program. Regardless of whether these types of programs are formal or informal, evidence stemming from both empirical research and anecdotal reports has shown that protégés receive many career benefits as a result of having a mentor (For a review, please see Allen, Eby, Poteet, Lentz & Lima, 2004). Other types of non-traditional mentoring relationships (e.g., peer mentors) and relationships occurring within non-organizational settings (e.g., academic setting with students) have also shown that individuals who are mentored will benefit (Allen, McManus, & Russell, 1999; Green & Bauer, 1995; Kram & Isabella, 1985).

To date, most research has focused on the positive outcomes that mentoring can have on the *protégé*. Only recently have authors focused their attention on the *mentor* (Allen, Poteet, Russell, & Dobbins, 1997; Aryee, Chay, & Chew, 1996). However, the majority of these studies have examined the impact of variables such as race, gender, and past experience as a mentor on the mentoring relationship (Dreher & Ash, 1990; Dreher

& Cox, 1996; Fagenson-Eland, Marks, & Amendola, 1997), rather than mentor characteristics (e.g., personality traits that may lead to being a successful mentor). Researchers have suggested that individual differences on the part of the mentor can influence the mentoring relationship (Allen & Poteet, 1999; Roche, 1979). A number of studies have examined the role that individual differences (e.g., altruism, upward striving) on the part of the mentor may play in the mentoring relationship (Allen et al., 1997; Aryee, Chay, & Chew, 1996); however, researchers have yet to examine the impact that personality characteristics on the part of the mentor may have on the type and quality of mentoring provided.

In addition, little research exists aimed at uncovering *why* mentors are motivated to engage in a mentoring relationship. Given the amount of time and effort often required to mentor others, it may be of value to understand what motivates one to engage in such behaviors. In fact, given that individuals will likely choose to become mentors for different reasons, these motives may actually impact the quality and quantity of mentoring functions (Allen, in press). For example, mentors who are motivated to mentor out of a desire to increase their visibility and reputation within an organization may not put a large amount of effort into providing career development and psychosocial functions to their protégé. Rather, they may focus their attention on engaging in enough face time to convince others that they are engaged in a mentoring relationship, but the quality of each interaction with the protégé may be poor given that the mentor may not be truly interested in helping the protégé. On the other hand, mentors who are motivated to become a mentor out of a sincere desire to have an impact on the life of another

individual may provide a high level of both mentoring functions, thus improving the overall quality of the mentoring relationship. Thus, it is important to examine how motives for mentoring are related to both career development and psychosocial functions, as well as to the benefits one receives as a protégé. In addition, it is important to examine potential antecedents of motives for mentoring in order to provide an overall framework for understanding how these variables impact mentor behavior.

The current study examines the impact that individual differences of the mentor can have on the mentoring relationship. A motivational approach is taken, in the sense that motives to mentor, as well as personality characteristics of the mentor, are considered in regard to their ability to predict the type of mentoring provided and outcomes for the protégé. Accordingly, the present study has four main objectives. The first is to examine how different mentor motives impact the quality and type of mentoring provided. The second objective is to identify individual differences that are related to motives to mentor. Specifically, the potential relationships between personality traits (Intrinsic/Extrinsic Motivation, Goal Orientation, Conscientiousness, Extraversion, Agreeableness, and Machiavellianism) and mentor motives, as well as the provision of mentoring functions, are examined. The third objective is to examine the ability of mentor characteristics to predict several protégé outcomes (School Self-Efficacy, School Stress, Physical Symptoms of Stress, Satisfaction with the Relationship, and Desire to Continue the Relationship). Finally, the fourth objective is to address a number of limitations inherent in the exploration of mentoring through the design of the current study.

Typically, mentoring studies are cross-sectional and consist of either surveys or self-report measures, which tend to be very subjective. In addition, most research has only gathered perceptions of the protégé, and such data are often not matched with that of the mentor. The current study matched 91 mentors (i.e., college juniors and seniors) with 91 protégés (i.e., college freshmen) who were asked to meet for a half hour each week for four consecutive weeks. Self-report measures were collected from both the mentors and the protégés. In addition, all mentoring sessions were videotaped so that trained raters could code the type of mentoring behaviors that occurred within a given session. This methodology allowed judgments to be made as to the extent that the self-report measures of mentoring functions corresponded to actual ratings of behaviors representing the mentoring functions.

Theoretical Background

Mentors are traditionally viewed as individuals with advanced knowledge and skill that provide both career development (e.g., sponsorship, exposure and visibility, coaching, protection, challenging assignments) and psychosocial functions (e.g., role modeling, acceptance and confirmation, counseling, and friendship) to a junior colleague, or protégé (Kram, 1985). Having a mentor typically results in positive career outcomes for the protégé. Some of the outcomes that protégés receive include higher promotion rates (Dreher & Ash, 1990; Whitely, Dougherty, and Dreher, 1991), higher compensation (Dreher & Ash, 1990; Whitely et al., 1991), perceived career success (Turban & Dougherty, 1994), career satisfaction (Fagenson, 1989), and career mobility (Scandura, 1992).

Some researchers have focused on protégé characteristics that may impact the mentoring relationship. Turban and Dougherty (1994) found that protégés' personality characteristics influence the amount of mentoring they receive by having an impact on the amount of effort they put forth in initiating the mentoring relationship. Protégés who had an internal locus of control, were high self-monitors, and had high emotional stability were more likely to initiate a mentoring relationship, thus influencing the amount of mentoring received. However, as Noe (1988) pointed out, "mentor characteristics may be equally important determinants of the success of mentoring relationships" (p. 476).

The motivation literature sheds light on the importance of examining *why* mentors are motivated to engage in a mentoring relationship. Motivation implies that an individual's behavior will be directed by his or her personal goals. "The goals that an individual adopts have direct ramifications for the activation and operation of self-regulation processes. The effectiveness of self-regulation processes for accomplishing specific goals, in turn affects the individual's goal choice" (Kanfer & Heggestad, 1997, p. 5). Indeed, Cropanzano, James, and Citera (1993) stated that "once a goal is chosen and accepted…individuals begin to place a higher value on successful performance" (p. 274). This process suggests that individuals who are motivated to engage in a specific task will be more successful than others at completing it. Along those lines, it is important to discover why individuals are motivated to become mentors. Chao, Walz, and Gardner (1992) suggested that, "motivation to participate in a mentorship [should] be a primary concern for formal programs" (p. 634). Aryee, Chay, and Chew (1996) echoed this

thought by stating that, "very little research effort has been devoted to understanding the motivational basis of assuming the mentor role" (p. 274).

Thus, individuals who are motivated to mentor, whether it be for intrinsic satisfaction, the desire to help others, or essentially any reason, may be more likely to persist in the mentoring relationship and to engage in tasks that fall within the domain of psychosocial or career development functions than mentors who have less motivation to engage in a mentoring relationship. In fact, knowledge of a mentor's *specific* reasons or motives for engaging in the mentoring relationship may even enable us to predict the type of mentoring in which they will engage.

Personality characteristics of the mentor may play an important role in explaining the amount of motivation a mentor may have. For example, Schmidt and Hunter (1981) and Barrick and Mount (1991) have argued that trait motivation is largely captured by individual differences in conscientiousness. The research of Kanfer and Ackerman (2000) suggests that differences in personality may explain why some individuals are more motivated than others to engage in certain behaviors. Accordingly, specific personality traits may lead to a greater likelihood that mentors will be motivated to engage in a mentoring relationship.

Allen (2003) found that helpful individuals are more likely to have served as a mentor to others, while individuals higher in other-oriented empathy, a facet of prosocial personality, reported greater willingness to mentor others. This implies that individuals who have an altruistic personality may be more likely to seek out and engage in mentoring relationships than those who are low on this personality trait. In addition,

specific personality traits of the mentor may predict which *types* of motives drive mentors. In fact, it has been suggested that personality theory should be integrated with current theories of motivation since both domains involve the accomplishment of specific task goals (Cropanzano et al., 1993). Interestingly, not only may personality influence the level of motivation an individual has to mentor, but it may also influence the type of motivation (e.g., desire to help others, self-interest) to mentor (Allen, in press). Unfortunately, the published literature is limited in regard to exploring this avenue of research.

Some researchers have looked at the importance of individual differences on the part of the mentor in general. Roche (1979) generated a list of seven key characteristics that focus on the mentor's power, position, knowledge and respect. Hunt and Michael (1983) suggested that mentors should be high in self-confidence and concerned about the needs and development of their subordinates. Cronan-Hillix, Gensheimer, Cronan-Hillix, and Davidson (1986) asked 90 graduate students to list the five most important characteristics of good and bad mentors. The most frequently mentioned characteristic of good mentors was that they were supportive of the student. Thus, researchers have suggested that individual differences on the part of the mentor can influence the mentoring relationship.

It is interesting to note that Cronan-Hillix et al. (1986) also found that specific personality traits on the part of the mentor might impact the mentoring experience. For example, personality characteristics such as a good sense of humor, honesty, dedication, empathy, compassion, genuineness, flexibility, patience, and loyalty, were frequently

listed as desirable traits in a mentor. Personality also played a formidable role in regard to the qualities that were not desired in a mentor. For example, bad mentors were described as rigid, critical, egocentric, prejudiced, pathological, rushed, overextended, disorganized, dishonest and untrustworthy. The authors concluded that the "personality of mentors is a prime determinant of their desirability" (Cronan-Hillix et al., 1986, p. 127).

While Cronan-Hillix et al. (1986) examined desirable mentor characteristics from the viewpoint of the protégé, others have considered similar information from the viewpoint of the mentor. Allen and Poteet (1999) examined the perceived characteristics of an ideal mentor based on interviews with 27 mentors from five different organizations and content-analyzed the findings. Results indicated that the ideal mentor should possess a variety of personality characteristics. These include: Patience, honesty, people-oriented, common sense, self-confidence, openness to suggestions, and willingness to share information. The authors suggested that, "a study in which mentor characteristics are assessed and then correlated with protégé reports regarding outcomes of the mentoring relationships would be especially useful" (Allen & Poteet, 1999, p. 68). Thus, researchers have clearly pointed to the potential value of studying mentor characteristics and the role that personality may play in the quality of mentoring. A benefit of the current study is that I examine personality characteristics on the part of the mentor in regard to their influence on the protégé's mentoring experience.

Although previous research has hinted at the importance of studying mentor personality traits, most studies have only examined mentor characteristics from the focus of demographic variables, such as the impact of race (Ragins, 1997), gender (Burke &

McKeen, 1997; Hurley & Fagenson-Eland, 1996), organizational tenure (Dreher & Ash, 1990; Fagenson, 1989; Kizlos, 1990; Whitely et al., 1991) and organizational level (Burke & McKeen, 1989; Ragins, 1997), as well as prior mentoring experience, either as a protégé or as a mentor (Allen, 1999; Allen et al., 1997; Ragins & Scandura, 1999). Thus, while individual difference variables other than demographics may affect the nature of the mentoring relationship, they have rarely been studied.

A few researchers who have examined personality characteristics of mentors outside of demographic variables, focusing on traits that are related to an individual's willingness or motivation to become a mentor, have found promising results. For example, traits such as positive affectivity, altruism, internal locus of control, and upward striving have been positively related to willingness to mentor (Allen et al., 1997; Aryee, Chay, & Chew, 1996). While these researchers have considered the impact of personality on one's willingness to become a mentor, it is of perhaps greater importance to uncover the type of motives one has to engage in such behavior. Different motives for mentoring may have an impact on the quality and quantity of mentoring provided as they may lead mentors to only provide specific functions that, while fulfilling their own needs, may not be in the best interest of the organization or protégé.

Individuals are willing to be mentors for a variety of reasons. These include the desire to enhance their own self-esteem, help others, pass on information, and gain potential rewards (Allen et al., 1997; Murray, 1991). Allen, Poteet, and Burroughs (1997) found that individual reasons for mentoring others could be grouped into two overall higher-order factors: other-focused (e.g., desire to pass information on to others,

help others in general) and self-focused (e.g., desire to increase personal learning, gratification seeing others succeed). They went on to suggest that the "specific motives [for mentoring] may determine what mentoring functions are most likely to be provided, the type of individual who will be selected as a protégé, and the amount of time that a mentor is willing to invest into a mentoring relationship" (p. 83). Thus, motivation to mentor may be linked to the type of mentoring functions provided and ultimately to the benefits one receives as a protégé.

Allen (2003) conducted a study to discover if prosocial personality variables (other-oriented empathy, helpfulness) were related to a willingness to mentor others. She found that both other-oriented empathy and helpfulness were related to willingness to mentor others. In addition, other-oriented empathy related to psychosocial functions and not career development functions, while helpfulness was correlated with career development but not psychosocial functions. Motives for mentoring were factor-analyzed and broken down into three motives: self-enhancement (e.g., to enhance your visibility within the organization, to earn respect from others), intrinsic satisfaction (e.g., personal pride that mentoring someone brings, to gain a sense of self-satisfaction by passing on insights), and to benefit others (e.g., desire to help others succeed in the organization, to ensure that knowledge and information is passed on to others).

Mentors who reported greater motivation to mentor for self-enhancement reasons provided more career functions. Those who were motivated by intrinsic satisfaction provided more psychosocial but not career functions, and mentors who were motivated to mentor in order to benefit others provided both types of functions. Allen (2003)

suggested that, "continued research concerning how mentor personality is related to various aspects of the mentoring relationship seem warranted" (p. 24). The current study expands on Allen's work by exploring whether personality differences account for which types of motives individuals have for mentoring, as well as the quality and type of mentoring functions provided to the protégé.

Clearly, the need exists to determine the personality characteristics of individuals who are most likely to be motivated to mentor for reasons that benefit the protégé and to determine which motives influence the type and quality of mentoring provided. It is also important to determine which mentor personality traits directly influence the type and quality of mentoring provided. A careful review of the personality and motivational literature suggests that a number of traits may be important in predicting motives for mentoring, as well as mentoring functions, given what we know about ideal mentor characteristics.

Ideally, mentors should have a desire to engage in a mentoring relationship for the intrinsic satisfaction it may offer them, as opposed to engaging in them for the sake of gaining extrinsic rewards. Research suggests that intrinsically motivated individuals outperform those who are extrinsically motivated in a variety of contexts (Amabile, Hill, Hennessey, & Tighe, 1994). Similarly, it is important that mentors be proactive in mastering the skills required in such a role, enjoy the challenge of the mentoring experience, and persist in the relationship despite potential difficulties. Learning goal-oriented individuals are defined by these characteristics, thus it seems reasonable that such individuals would be more likely to be successful mentors.

The Big Five Personality Taxonomy has seen considerable debate in recent times (Goldberg, 1990). Many researchers view the Big Five as valuable predictors of performance in a number of different contexts (Cortina, Dougherty, Schmitt, Kaufman, & Smith, 1992; Hogan, 1991; Salgado, 1997). Some of the Big Five have been found to be more predictive than others (Barrick & Mount, 1991). Interestingly, many of the adjectives used to describe certain Big Five factors have appeared in the literature as ideal mentor characteristics. For example, people who are agreeable, compassionate, people-oriented, and willing to share their expertise with others; conscientious, honest, trustworthy, dedicated, and achievement-oriented; and extraverted, confident, effective communicators who possess leadership qualities, are sought out as mentors.

Conversely, bad or dysfunctional mentors are described as exploitative, dishonest, untrustworthy, manipulative, and unwilling to share their expertise with others. Therefore, it seems reasonable to assume that these Machiavellian-like characteristics may negatively impact the mentoring relationship.

The following sections will review personality characteristics (i.e., intrinsic motivation, goal orientation, Conscientiousness, Extraversion, Agreeableness, and Machiavellianism) that may be related to motives for mentoring (i.e., self-enhancement, intrinsic satisfaction, to benefit others) and the type and quality of mentoring functions, as well as the impact that motives for mentoring may have on the type and quality of mentoring that occurs. A pictorial representation of the proposed relationships among the variables of interest is provided in Figure 1.

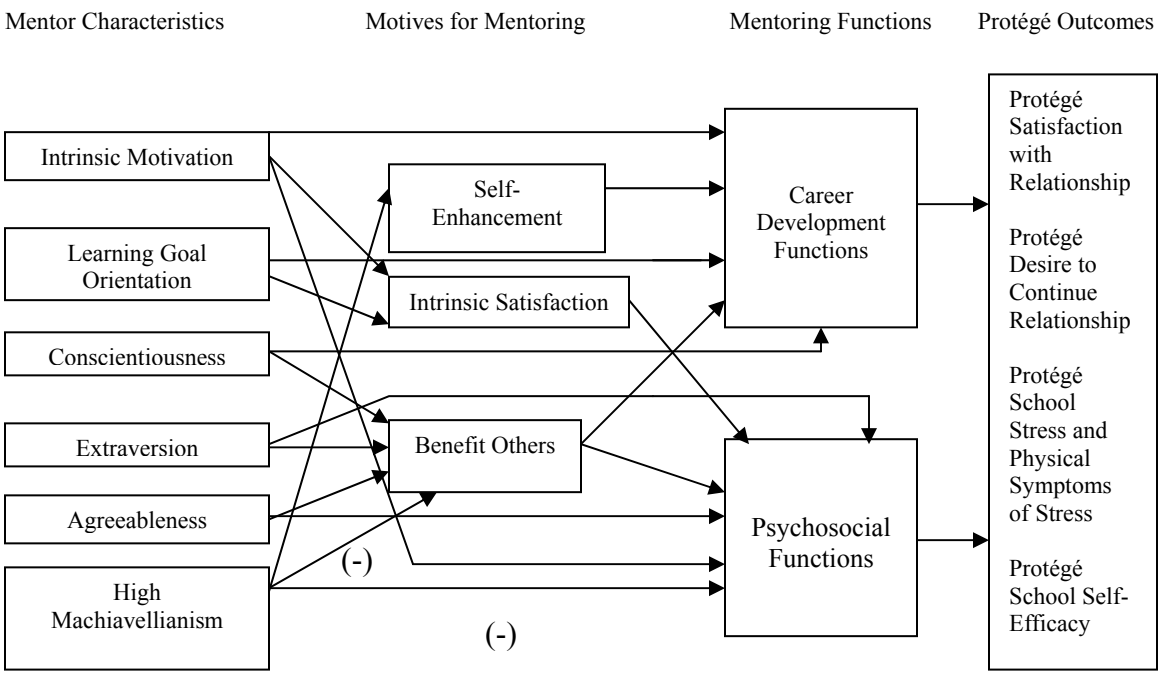

Figure 1.

Model of Proposed Relationship Between Mentor's Personality Traits, Motives to Mentor, Mentoring Functions and Outcomes for the Protégé

Literature Review and Hypothesis Development

Intrinsic Motivation and Career Mentoring

Intrinsic motivation can be defined as "the motivation to engage in work primarily for its own sake, because the work itself is interesting, engaging, or in some way satisfying" (Amabile, Hill, Hennessey, & Tighe, 1994, p. 950). Extrinsic motivation, on the other hand, involves "the motivation to work primarily in response to something apart

from the work itself, such as reward or recognition or the dictates of other people" (p. 950).

Although Intrinsic and Extrinsic Motivation have often been depicted as temporarily induced motivational states, much of the research conducted in this area suggests that it may be worthwhile to study these constructs as stable individual differences that are strong and salient. For example, extrinsically motivated individuals tend to show more impatient, rigid behavior in task engagement (Garbarino, 1975); poorer concept attainment (McCullers & Martin, 1971); impaired complex problem solving (Glucksberg, 1962); and poorer incidental learning (Bahrick, Fitts, & Rankin, 1952). It may be of value in a variety of settings (e.g., selection, performance management) to determine if these differences are a result of stable motivational traits within individuals (Amabile et al., 1996).

People who are intrinsically motivated are more likely to engage in challenging and developmental opportunities. They prefer activities that are complex, challenging, and entertaining. They respond with greater effort and persistence after encountering failure (Boggiano & Barrett, 1985), show increased capacity for conceptual learning (Grolnick & Ryan, 1987) and display cognitive flexibility in their problem-solving attempts (Condry, 1977). As a result, it seems reasonable to assume that such individuals amass more technical knowledge than their counterparts, regardless of whether it is in an organizational or academic setting. Individuals who seek out challenging opportunities on a regular basis may have mastered skills that others who are not as proactive may lack. For example, intrinsically motivated individuals tend to persist when confronted with a

challenging project rather than giving up in the face of potential failure. This may lead to the attainment of a greater depth of both knowledge of one's own capabilities, as well as knowledge of the specific task. Intrinsically motivated individuals may acquire important, performance-related skills to a greater extent than extrinsically motivated individuals as a result of learning from their mistakes and their propensity to look for more than one way to solve a problem. It is likely that intrinsically motivated individuals, in their pursuit of developmental opportunities, may develop a wider variety of valuable skills than extrinsically motivated individuals. Through these learning experiences of trial and error, these individuals may be more capable at identifying tasks that lead to career advancement for those they mentor since they may have mastered those tasks in pursuit of their own career goals. Similarly, it seems reasonable to assume that intrinsically motivated students will gain greater knowledge and skills through their pursuit of challenging opportunities in the academic arena (e.g., challenging classes or assignments), allowing them to impart this knowledge to their protégés.

Individuals with intrinsic motivational orientations toward their jobs initiate and regulate job-related activities autonomously (Deci & Ryan, 1985). They select job tasks and strategies that are consistent with their own conceptions of how to do a job well rather than being controlled by outside forces (Condry & Chambers, 1978). Salespeople with higher intrinsic motivational orientations toward their jobs tend to possess greater technical knowledge (Goolsby, Lagace, & Boorom, 1992) and have more highly developed knowledge about various selling strategies (Sujan, 1986). Intrinsically motivated salespeople are more likely to engage in adaptive selling behavior (Spiro &

Weitz, 1990), to provide informational feedback to their companies, and to engage in behaviors to control their selling expenses (Goolsby et al., 1992). These are all indicators of successful career management. Intrinsically motivated individuals prefer more complex problems to easier tasks (Pittman, Emery, & Boggiano, 1982), focus on subtle aspects of the task and utilize information sources not obviously relevant to the immediate solution. Each of these findings supports the premise that intrinsically motivated individuals stand to be in a position to provide career development functions to their protégés.

Career development functions are those aspects of the mentoring relationship that enhance learning the ropes and preparing the protégé for advancement in the organization (Kram, 1985). These career-related functions are possible because of the senior person's experience and knowledge. In the academic arena, career development functions may represent those aspects of the undergraduate experience that prepare the protégé for advancement within the university. For example, this may involve coaching the protégé on the university's general educational requirements, the correct courses to take with regard to a specific major, or extracurricular activities that build experience and look good on one's academic resume. If the mentor does not possess the relevant knowledge to impart to his or her protégé, he or she will be limited in the breadth and depth of academic and career-related functions he or she can provide.

It is evident that a successful mentor is one who has mastered a wide variety of skills and who has been successful in achieving his or her academic goals. In addition, successful mentors will be able to pass on advice and information regarding how to

advance within the university (e.g., specific courses to take) based on their own personal experiences. The attainment of one's own academic goals will also allow the mentor to be in a better position to provide guidance, support, or ideas for pursuing challenging opportunities to a protégé. Thus, given the nature of intrinsically motivated individuals to be proactive in selecting and choosing tasks that allow them to be challenged and to acquire new skills, it seems likely that these individuals will be better equipped to coach protégés and/or provide them with tips on how to succeed academically. It is therefore hypothesized that:

Hypothesis 1 – Mentors who are higher on Intrinsic Motivation will provide more career development mentoring than will mentors lower in Intrinsic Motivation.

Intrinsic Motivation and Psychosocial Mentoring

Deci and Ryan (1987) suggested that motivational orientations have different effects on the emotional tone of interpersonal relationships. In a study of tutors, Gabarino (1975) found that intrinsically motivated tutors had more positive, less demanding behavior toward their students, yet received better performance from them than did extrinsically motivated tutors. Keaveney (1995) found that intrinsically motivated retail buyers expended effort to maintain positive work environments and maintained significantly more relationships with vendors than did extrinsically motivated buyers. Children with high need for achievement scores, which reflects an intrinsic form of competence motivation, were rated by their teachers as working well with others (Feld, 1967) and received higher sociometric ratings from their peers (Lifshitz, 1974). Finally, individuals high on need for achievement tended to adopt a cooperative interpersonal

style when working with others (Terhune, 1966). These studies clearly support a link between intrinsic motivation and success in interpersonal relationships.

With regard to the mentoring relationship, success in interpersonal relationships is an important requirement in a potential mentor when it comes to providing psychosocial functions. "Psychosocial functions are those aspects of a relationship that enhance a protégé's sense of competence, clarity of identity, and effectiveness in a professional [or academic] role" (Kram, 1985, p. 22). This type of function is possible because of an interpersonal relationship that fosters mutual trust and intimacy between the mentor and the protégé. If a mentor lacks important skills such as the ability to listen, give and receive feedback, or manage conflict or disagreement, the interpersonal facet of the relationship may suffer, thus narrowing the range of psychosocial functions that are provided (Kram, 1985). It is evident that mentors who possess personality traits that are related to having good interpersonal skills may be more successful than those who do not. Intrinsically motivated mentors may show more positive regard for their protégé, act in a more cooperative manner, and expend more effort to maintain a strong relationship with their protégé than extrinsically motivated individuals.

Given that psychosocial mentoring functions include highly interpersonal behaviors such as serving as a role model and conveying unconditional positive regard toward the protégé, it seems reasonable to assume that intrinsically motivated mentors would provide more of this type of mentoring. It is therefore hypothesized that:

Hypothesis 2 - Mentors who are higher on Intrinsic Motivation will provide more psychosocial mentoring than will mentors who are lower on Intrinsic Motivation.

Intrinsic Motivation and Intrinsic Satisfaction Motive

People who are intrinsically motivated seek out environments where they are challenged and do things for the sake of doing them. These individuals are attracted to opportunities where they are allowed to show greater initiative, to interpret their existing situations as more autonomy promoting and to organize their actions on the basis of personal goals and interests (Deci & Ryan, 1985). Intrinsically motivated individuals tend to be less controlled by extrinsic rewards and experience them as affirmations of their competence. Self-reports of interest, enjoyment, spontaneity, and creativity in one's activities are related to intrinsic motivation (Amabile et al., 1986; Deci & Ryan, 1987; Harackiewicz, 1979). Intrinsically motivated students may have a tendency to seek out academic majors that are more challenging than others and to be motivated to succeed academically out of a sense of enjoyment and interest in their chosen endeavor, as opposed to seeking out less demanding courses or being motivated to succeed solely to receive an 'A' in a class.

It is reasonable to assume that intrinsically motivated individuals may be motivated to become a mentor because they want to feel a sense of intrinsic satisfaction and pride in a job well done. Intrinsically motivated individuals may be attracted to the opportunity to act as a mentor because the relationship has the potential to provide them with a sense of enjoyment or because they are curious and interested in pursuing such a relationship. A mentor who is motivated for reasons of intrinsic satisfaction is participating in the relationship because he or she wants to feel a sense of pride, self-satisfaction, or personal gratification that mentoring may bring to him or her. This type

of motive for mentoring is very similar to engaging in an activity out of a sense of intrinsic motivation. Therefore, it is hypothesized that:

> *Hypothesis 3* - Mentors who are higher on Intrinsic Motivation will be more motivated to mentor for Intrinsic Satisfaction reasons than will mentors who are lower on Intrinsic Motivation.

Learning Goal Orientation and Career Mentoring

The concept of goal orientation emerged in the 1980s from research conducted with grade school children by Carol Dweck and her colleagues (Vandewalle, 2001). Children worked on a set of problem-solving tasks they were able to successfully solve, and then they were given a second set of problems that were very difficult for their age level. As the children encountered failure, two distinct response patterns emerged. A portion of the children exhibited a helpless response and quickly became demoralized, expressed little interest in continuing with the activity, exhibited a loss of confidence in their ability, experienced feelings of distress and unhappiness, while their problem-solving strategies became more random and counterproductive (Vandewalle, 2001). "[O]ther children exhibited a more constructive response pattern and appeared to enjoy the challenge, remained confident that they could eventually solve the problems and worked at developing more productive problem-solving strategies" (p.163). Helpless and mastery-oriented individuals, it was concluded, pursue different goals in achievement situations, with helpless individuals seeking to *document* their ability and mastery-oriented individuals seeking to *increase* their ability (Vandewalle, 2001).

As a result of these initial studies, Dweck proposed two basic orientations: 1) Learning goal orientation, which is a preference to develop one's competence by acquiring new skills and mastering new situations, and 2) Performance goal orientation, which is a preference to demonstrate and validate one's competence by seeking favorable judgments and avoiding negative judgments from others. Individuals with high learning goal orientation tend to be proactive in learning and mastering a variety of activities. In gaining knowledge and experience that less proactive individuals might not acquire, these individuals become better positioned to provide guidance and direction to others. That is, by having experienced more learning opportunities than others, they are more capable at passing their knowledge on to the protégé.

A number of studies support the advantages of learning goal orientation. Diener and Dweck (1978) demonstrated that helpless children showed marked performance decrements under failure and made attributions for failure to lack of ability, whereas mastery-oriented children showed enhanced performance and made surprisingly few attributions. Instead, the mastery-oriented children engaged in self-monitoring and self-instruction, focusing on remedies for failure. In another study Elliot and Dweck (1988) manipulated both relative goal value (learning vs. performance) and perceived ability (high vs. low) in a sample of 101 fifth graders. They found that learning goals promoted challenge seeking and a mastery-oriented response, regardless of perceived ability, while performance goals produced challenge-avoidance and learned helplessness when perceived ability was low and certain forms of risk-avoidance, even when perceived ability was high. The authors concluded that:

> performance goals, which focus individuals on the adequacy of their ability, will render them vulnerable to the helpless response in the face of failure, setting up low ability attributions, negative affect, and impaired performance. In contrast, learning goals, which focus individuals on increasing their ability over time, will promote the mastery-oriented response to obstacles: strategy formulation, positive affect, and sustained performance. (Elliot & Dweck, 1998, p. 5)

Thus, it seems evident that individuals who exhibit a learning goal orientation will pursue challenging goals regardless of their perceived ability. They will focus on developing their abilities by acquiring new skills and mastering the tasks they encounter, as opposed to exhibiting a helpless response. It seems reasonable to assume that mentors who have a learning goal orientation will be more likely than their peers to have mastered academic- or career-related skills, allowing them greater expertise to pass on to others.

A number of studies have demonstrated similar trends regarding the superiority of learning goal orientation. Ames and Ames (1981) demonstrated that adopting personal standards, as opposed to normative standards, assists in sustaining the benefits of previous success even in the face of failure. Performance goals tend to lead to the adoption of normative standards, while learning goals tend to encourage personal standards (Farr, Hoffman, & Ringenback, 1993). This implies that performance-oriented individuals base their expectations of success on perceptions of their ability to others, while learning-oriented individuals base expectations on perceptions of the degree of effort required to accomplish one's goals.

Vandewalle (2001) suggests that individuals with a learning goal orientation view effort as a means for activating one's current ability and as a strategy for developing the additional capabilities needed for future task mastery. Such individuals tend to engage in greater effort and persist longer when they believe that success is possible and tend to show high levels of self-efficacy. Individuals with a learning goal orientation are more likely to choose a task with moderate challenge or difficulty, regardless of their expectations of success (Bandura & Dweck, 1981). These individuals are interested in developing their skill and ability and believe that such development is possible.

In one study, Vandewalle (2001) found that a learning goal orientation led to setting skill improvement goals (i.e., goals to develop new presentation skills and to refine existing presentation skills), which were positively related to performance on a final presentation. However, a performance orientation was related to setting comparison goals and avoidance goals. Dweck (1989) suggested that performance-oriented individuals might sabotage their own performance by either developing excuses for their performance or not trying. With "performance goals, low or shaky expectancies of success may lead one to shun the very tasks that foster learning and mastery experience, or to pursue them in ineffective ways" (p. 101).

It seems likely that learning goal-oriented individuals will be in a better position to provide career or academic guidance to others. After all, they have a greater likelihood of mastering those academic- or career-related tasks that will allow them the knowledge and positioning to do so. They prefer to acquire new skills, master new situations, are more likely to choose moderately difficult or challenging tasks, regardless of their

expectations of success, and are more likely to have discovered effective means for solving problems. These preferences may allow them to provide career development functions more readily than mentors who may not be high on learning goal orientation. For example, the coaching function involves the "senior colleague suggest[ing] specific strategies for accomplishing work objectives, for achieving recognition, and for achieving career aspirations," (Kram, 1985, p. 28), while the provision of challenging assignments requires the mentor to support the protégé through training and ongoing feedback on performance. Mentors who are higher on learning goal orientation may be more apt at providing these functions because they may have acquired more knowledge about which strategies will be effective with regard to work in their pursuit of mastering new tasks. Students who are high on learning goal orientation may be better equipped to suggest specific strategies on how to accomplish academic objectives, achieve recognition from faculty or administrators, or pursue challenging opportunities.

In addition, Farr et al. (1993) suggested that "managers may be more likely to provide feedback that is consistent with their own goal orientations, thus the learning goal-oriented manager may be more likely to discuss developmental aspects of the job and strategies for task improvement" (p. 208). Thus, when learning goal-oriented individuals are engaged in a mentoring relationship, they may be more likely to provide career development functions. That is, mentors who are motivated to master skills within their own academic careers will be more likely to provide protégés with direction geared toward helping them master academic tasks. It is therefore hypothesized that:

Hypothesis 4 - Mentors who are higher on Learning Goal Orientation will provide more career development mentoring than will mentors who are lower on Learning Goal Orientation.

Learning Goal Orientation and Intrinsic Satisfaction Motive

A learning goal orientation is a preference to develop one's competence by acquiring new skills and mastering new situations. Individuals with a strong learning goal orientation are interested in developing their skill and ability and express a willingness to set challenging goals and seek opportunities that foster personal growth, such as mentoring others. It is likely that these individuals will be motivated to engage in activities simply for the intrinsic satisfaction it would bring them when they succeed in learning a new skill. Steele-Johnson, Beauregard, Hoover, and Schmidt (2000) found that individuals with a learning goal orientation reported higher levels of motivation in terms of self-efficacy and intrinsic motivation on an inconsistent task.

Dweck (1989) believes that high-effort mastery experiences are more likely to produce pleasurable experiences, feelings of pride in one's work, and to engender intrinsic motivation and thus a greater feeling of personal control for learning goal oriented individuals. Yoo (1999) conducted a study with 218 men attending physical education classes. It was expected that task-oriented (i.e., learning goal-oriented) students would choose a challenging task, exert maximum effort, experience intrinsic motivation, and persist in the task over time. However, ego-oriented individuals (i.e., performance goal-oriented) would avoid challenging tasks, exert minimum effort, impair performance, and withdraw from the sport following failure. Yoo (1999) found that

students with a learning goal orientation were more likely to report experiencing enjoyment, exert effort, and were more intrinsically motivated.

Allen, Poteet, and Burroughs (1997) suggested that mentors seek out mentoring relationships because they are motivated to increase their own personal learning and to gain a sense of pride that mentoring someone brings. Mentors who are motivated to mentor for reasons of intrinsic satisfaction are likely to engage in a mentoring relationship because they want to feel good inside. Mentors who are high on learning goal orientation may be motivated to mentor for intrinsic reasons as well. They may choose to become a mentor because they are looking for a developmental opportunity, something that mentoring can provide. Therefore, it seems likely that individuals with a learning goal orientation will be more willing and, thus, more motivated to act as a mentor because they may view it as a challenging task where they can acquire new skills and experience intrinsic motivation. Thus, it is hypothesized that:

Hypothesis 5 - Mentors who are higher on Learning Goal Orientation will be more motivated to mentor for Intrinsic Satisfaction reasons than will mentors who are lower on Learning Goal Orientation.

Conscientiousness and Career Mentoring

The Five Factor Model of personality, also known as the "Big Five", is perhaps one of the most frequently discussed personality taxonomies of recent times (Goldberg, 1990). The five personality factors that constitute this model are: 1) Extraversion – sociability, dominance, ambition, positive emotionality and excitement-seeking; 2) Agreeableness – cooperation, trustfulness, compliance, and affability; 3) Emotional

Stability – lack of anxiety, hostility, depression, and personal insecurity; 4) Conscientiousness – dependability, achievement striving, and planfulness; and 5) Openness to Experience – intellectance, creativity, unconventionality, and broad-mindedness (Barrick, Mount, & Judge, 2001). These personality factors have been shown to be stable across the lifespan (Conley, 1984; Costa & McCrae, 1988) and have a genetic influence (Bouchard, 1997). They also consistently emerge despite different measurement approaches, languages, cultures, and using ratings from different sources (Digman & Shmelyov, 1996). Barrick et al. (2001) conclude "while there is not universal agreement on the Big Five model, it is a useful taxonomy and currently the one considered most useful in personality research" (p. 11). After a thorough review of both the personality and mentoring literature, it was determined that three of the Big Five dimensions were relevant to the current study: Conscientiousness, Extraversion, and Agreeableness.

Conscientious individuals tend to be careful, dependable, thorough, responsible, organized and planful (Barrick & Mount, 1991). "Because highly conscientious people are hardworking, achievement oriented, and perseverant, they tend to do what needs to be done to accomplish work" (LePine & VanDyne, 2001, p. 327). A number of studies have demonstrated that conscientious individuals tend to be more successful at a variety of tasks due to persistence, self-discipline and achievement orientation. Holland, Johnston, Asama, and Polys (1993) found that the importance of achievement, working hard, and persisting in the face of obstacles is highly related to Conscientiousness. Taggar, Hackett and Saha (1999), in a study of 480 undergraduates in 94 initially leaderless teams, found

that leadership emergence was highly associated with Conscientiousness. They concluded that conscientious individuals display many of the traits that are necessary for effective leadership, such as being careful, responsible, self-disciplined, task-oriented, and capable of setting achievable goals and motivating others (Taggar et al., 1999).

Conscientiousness has been linked to achievement, competence, and discipline. Costa and McCrae (1992) have noted that high Conscientiousness is associated with academic and occupational achievement. Paunonen and Ashton (2001) conducted a study with 717 undergraduate students. A Conscientiousness composite, consisting of Jackson's (1984) Personality Research Form scales (i.e., the sum of Achievement, Cognitive Structure, Desirability, Endurance, Order and negative Impulsivity) was significantly correlated with final grades, indicating that conscientious students are successful in their courses partially as a result of their personality.

Conscientious individuals are successful at performing job-related tasks. Anderson and Viswesvaran (1998) found that Conscientiousness is the strongest predictor of job performance. A recent meta-analysis of 15 prior meta-analytic studies confirmed this relationship (Barrick, Mount, & Judge, 2001). If those high on Conscientiousness tend to be more successful at their jobs, then they may be more likely to provide others with tips on how to succeed in their jobs. That is, conscientious individuals are positioned to provide direction to others in regard to how to succeed at career-related activities. Having pushed themselves to succeed in their own careers, they are more capable than others to provide career-related guidance. Similarly, students who are high on Conscientiousness may be more successful in their academic careers and may be in a

better position to provide other students with successful tips on how to succeed academically. For example, highly conscientious students may be absent less, pay more attention to their professors' lectures, take more comprehensive notes during class, manage their time more effectively, get better grades, and study with sufficient time to prepare for a test as opposed to their less conscientious counterparts. These types of behaviors are typically associated with success (e.g., high grade point average) in the academic arena. Thus, students who have succeeded academically as a result of their conscientious study habits may be in a better position to offer academic advice to other students.

Additionally, conscientious individuals tend to engage in active planning and problem-solving strategies when they encounter challenging tasks (Watson & Hubbard, 1996). Along these lines, Craik, Ware, Kamp, O'Reilly, Staw, and Zedeck (2002) explored the construct validity of managerial performance dimensions in an assessment center setting. In a sample of 114 MBA candidates, they factor analyzed 14 managerial performance dimensions. As a result, two managerial styles, a strategic managerial style and an interpersonal managerial style, emerged. The Strategic Managerial Style had high loadings for seven important determinants of managerial success (i.e., decision-making, fact-finding, delegation, analytic approach, planning, control, and written communication). Conscientiousness was significantly correlated with this managerial style. Thus, conscientious students may be more likely to be in a position to provide protégés with advice for pursuing developmental course assignments, as they tend to exhibit behaviors that assist them in attaining leadership positions.

The provision of career development functions requires that a mentor be in a position to aid a protégé in advancement up the hierarchy of an organization or institution (Kram, 1985). Sponsorship involves actively nominating an individual for lateral moves and promotions, while exposure and visibility allow the protégé to demonstrate competence and performance. A mentor who coaches his or her protégé may be giving various tidbits of advice and sharing a more experienced perspective with the protégé. It may be that conscientious students are proactive in seeking out opportunities to interact with faculty or administrative staff at their university. They may be more likely to be in a position to recommend another student to a faculty member or coach them on how to succeed in their academic program. In fact, conscientious mentors may be more successful in attaining career-related or academic achievements and passing this information on than those who are less conscientious. Therefore, it is hypothesized that:

> *Hypothesis 6* - Mentors who are higher on Conscientiousness will provide more career development mentoring than will mentors who are lower on Conscientiousness.

Conscientiousness and Benefit Others Motive

Conscientious individuals are known for their strong work ethic, reliability, and diligence. Such individuals are likely to engage in activities that support the overall functioning of their organization and operationalize their sense of duty. These individuals are committed to engaging in actions that benefit their organization. For example, Kirchmeyer and Bullin (1997) found that conscientious nurses showed greater commitment to their organization when compared to those who scored low on

Conscientiousness. In addition, Conscientiousness predicted nurses' valuing of the people with whom they work, innovation and leadership. Along those lines, Konovsky and Organ (1996) assessed the Conscientiousness of 402 professional and administrative VA employees and then obtained supervisors' ratings of these same employees' organizational citizenship behaviors (OCBs). Conscientiousness was predictive of generalized compliance, civic virtue and altruism, which are all subscales of OCB. These findings seem to suggest that conscientious students may show greater commitment to their university and thus are more likely to engage in activities that support the university in some way (e.g., participate as a mentor in a mentoring program).

In addition, it seems likely that those who engage in a mentoring relationship may be doing it for reasons other than extrinsic rewards. For example, some mentors may not receive outward recognition within the university for their evident support of another student, however they may have been motivated for intrinsically rewarding reasons. Similarly, mentors who are motivated in order to benefit others take part in the relationship for various reasons. They may have a desire to benefit the university or to build competent students. They may be motivated out of a general desire to help other students succeed. Mentors who are motivated for these reasons may see the mentoring relationship as an opportunity to give back to the university. Thus, it stands to reason that conscientious mentors may be likely to be motivated to mentor in order to benefit others given that they tend to be more committed to their organization or university, place a high value on fellow employees or students, and act in altruistic ways that benefit the organization. Therefore, it is hypothesized that:

Hypothesis 7 - Mentors who are higher on Conscientiousness will be more motivated to mentor in order to Benefit Others than will mentors who are lower on Conscientiousness.

Agreeableness and Psychosocial Mentoring

Individuals who are high in Agreeableness tend to be courageous, flexible, trusting, good natured, cooperative, forgiving, empathic, soft-hearted, tolerant, avoid controversy and defer to others when conflict arises (Wanberg & Kammeyer-Mueller, 2000). Because of these tendencies, they are more likely to have positive interactions with others (Costa & McCrae, 1992). In a longitudinal study of 132 first-year undergraduate students, Asendorf and Wilpers (1998) found that agreeable students tended to engage in less conflict with peers. Bono, Boles, Judge, and Lauver (2002) replicated this finding. Similarly, Graziano, Jensen-Campbell, and Hair (1996) found that agreeable people minimize interpersonal conflict by being less aggressive or by provoking less aggression in others.

Agreeableness is negatively related to adolescent antisocial behavior and delinquency (Robins, John, & Caspi, 1994). This may be due to the fact that these individuals tend to control negative affect and exhibit high levels of self-control in interpersonal settings (Jensen-Campbell, Graziano, & Hair, 1996). Similarly, such individuals respond to interpersonal conflict more constructively (Graziano et al., 1996), work harder to suppress negative emotions during social interactions (Tobin, Graziano, Vanman, & Tassinary, 2000), and cooperate more productively during interdependent group tasks (Graziano, Hair, & Finch, 1997).

Barrick, Mount, and Judge (2001) conducted a meta-analysis that investigated the relationship between the Big Five personality traits and job performance. They concluded, "the one situation in which Agreeableness appears to have high predictive validity is in jobs that involve considerable interpersonal interaction, particularly when the interaction involves helping, cooperating and nurturing others" (Barrick et al., 2001, p. 12). LePine and Van Dyne (2001) suggested that agreeable individuals have higher quality interpersonal interactions given that they tend to be viewed as likeable, friendly, good-natured, and courteous.

It is possible that agreeable individuals are more likely to be amenable to building the esteem of others during the course of conversation or interpersonal interactions. That is, they are less confrontational and willing to express support for the protégé. Agreeableness is positively associated with performance in jobs involving interpersonal relations (Mount, Barrick, & Stewart, 1998) and with motives to maintain positive interpersonal relations and the number of friends a person has (Jensen-Campbell, Adams, Perry, Workman, Furdella, & Egan, 2002). In addition, agreeable people reported liking other people more than their less agreeable counterparts (Graziano et al., 1996).

"Psychosocial functions affect each partner on a more personal level than career functions and depend more on the quality of the interpersonal relationship. The role relationship is not as crucial as the emotional bond that underlies the relationship" (Kram, 1985, p. 32). Role modeling involves the mentor setting a desirable example and the protégé identifying with it, while acceptance and confirmation occurs when the relationship is characterized by mutual liking and mutual respect (Kram, 1985). A

mentor who counsels his or her protégé may become a confidante to his or her protégé. Finally, some mentors provide friendship to their protégé and this function is characterized by social interaction that results in mutual liking and understanding and enjoyable informal exchanges (Kram, 1985). Psychosocial functions require a mentor who has a high level of interpersonal skill when interacting with others. Mentors who like their protégé, are less confrontational and aggressive in relations with others, and who tend to be more cooperative and nurturing in general, are more likely to provide psychosocial functions than mentors who dislike their protégé, act aggressively, and have negative attitudes. The aforementioned traits are indicative of a mentor who is high in Agreeableness. Based on these findings, it seems reasonable that those high in Agreeableness are more likely to provide psychosocial functions such as friendship and role modeling since it is part of their inherent nature to do so. Thus, it is hypothesized that:

Hypothesis 8 - Mentors who are higher on Agreeableness will provide more psychosocial mentoring than will mentors who are lower on Agreeableness.

Agreeableness and Benefit Others Motive

Mentoring, in some cases, constitutes an altruistic activity. Those who engage in mentoring activities may be motivated to mentor out of a willingness to help others, often at the cost of their own time and expense. With regard to the mentoring relationship, Aryee, Chay, and Chew (1996) found that altruism is related to motivation to mentor others. A number of studies have shown that agreeable individuals may be well suited to the task of providing mentoring functions to protégés given that Agreeableness, which is

considered a socially oriented characteristic (Costa & McCrae, 1992), tends to be related to altruism.

Kirchmeyer and Bullin (1997) found that greater Agreeableness predicted nurses' commitment to the organization and valuing of the people with whom they work. Ashton, Paunonen, Helmes, and Jackson (1998) conducted a study with 118 introductory psychology students aimed at identifying personality characteristics associated with kin altruism (i.e., behaving in a way that benefits a genetic relative's chances of survival in reproduction at some cost to one's own chances) and reciprocal altruism (i.e., acting in a way that benefits another individual at some expense to oneself, with the expectation that the recipient will return such help in the future). Both kin and reciprocal altruism were positively related to Agreeableness. In addition, they found that empathy/attachment and forgiveness/non-retaliation factors were highly related to Agreeableness. DePue and Collins (1999) suggested that Agreeableness is a personality dimension that involves a preference for affiliation and affection for others. Saucier and Goldberg (1996) concluded that, of the Big Five personality dimensions, only Agreeableness is generally thought to be strongly related to behavior that is altruistic versus antagonistic or prosocial versus antisocial. In addition, Graziano, Jensen-Campbell, and Hair (1996) suggested that agreeable individuals are motivated to maintain harmonious social relationships with others.

It may be that agreeable individuals may be motivated to mentor in order to benefit other students or the university in some manner given that this motive tends to be altruistic in nature. In addition, those high in Agreeableness tend to be motivated to

maintain positive interpersonal relationships, an important function of the mentoring relationship (Graziano et al., 1996). Given that agreeable individuals tend to engage in activities that may be altruistic in nature (e.g., mentoring others), to be motivated in order to maintain positive relationships with others, and to value other individuals, it is hypothesized that:

> *Hypothesis 9* - Mentors who are higher on Agreeableness will be more motivated to mentor in order to Benefit Others than will mentors who are lower on Agreeableness.

Extraversion and Psychosocial Mentoring

People who are extraverted are sociable, gregarious, assertive, talkative, and active. Extraversion relates to individuals' energy levels and positive affectivity, traits that may promote positive and cooperative interactions with others in the course of accomplishing work (LePine & Van Dyne, 2001). There is evidence that Extraversion is linked with positive peer relations because it consists of characteristics such as sociability, social interest, and a preference for social interaction (Elphick, Halverson, & Marzal-Wisniewska, 1998). A number of studies have demonstrated a relationship between Extraversion and interpersonal relationships.

For example, Barrick and Mount (1991) found that Extraversion is related to job performance in occupations where interactions with others are a significant portion of the job. In a study with 90 adolescents, Cheng and Furnham (2002) found that Extraversion was a significant predictor of general confidence, happiness, and social interactions. Extraverted fifth- and sixth-grade children tended to be accepted by their peers more and

to have more friends than their counterparts (Jensen-Campbell, Adams, Perry, Workman, Furdella, & Egan, 2002). Similarly, Asendorf and Wilpers (1998) conducted a longitudinal study with 132 entering freshmen in a university. Extraversion and two of its sub factors, Sociability and Shyness, affected the size of the peer network of the participants and the amount of time they spent in social interaction in general. They concluded that "the more extroverted and sociable, and the less shy the participants described themselves at the beginning of the term, the more their peer network grew over the next few months" (Asendorf & Wilpers, 1998, p. 1537). These findings suggest that extraverted individuals are more successful at building and maintaining interpersonal relationships than are most individuals. That is, they enjoy and seek out these types of interactions. They prefer to be around people most of the time and spend more time socializing than introverts (Costa & McCrae, 1992). This research suggests that extraverted mentors may be more successful at building interpersonal relationships with their protégés than introverted mentors.

Weaver, Watson, and Barker (1996) conducted a study with 1,631 students in an introductory-level professional communication course. Extraverted individuals perceived themselves as friendly, open, and supportive listeners. In addition, extraverts are more likely to engage in contextual performance (Gellatly & Irving, 2001), which implies they are better suited for the social and interpersonal demands of contextual activities, such as fostering positive work relationships, interactions with subordinates, and public relations. Due to their propensity toward gregariousness and their desire to engage in warm and uplifting conversation, extraverts are more likely to present a positive view to others. In

addition, they may be more supportive and accepting of people when engaged in interpersonal interactions with others. In a mentoring relationship, this is likely to result in interactions that are geared toward enhancing the protégé's sense of accomplishment in a given task.

Psychosocial functions seem dependent upon a high level of interpersonal interest in others. Functions (i.e., psychosocial) that "enhance personal development and an increasing sense of competence and self-worth, like role modeling, or friendship, are common to those relationships characterized by considerable interpersonal intimacy" (Kram, 1985, p. 9). Mentors who excel in interpersonal situations may feel more comfortable acting as a role model or friend to a protégé because they enjoy interacting with others and may have become proficient at making others feel comfortable and secure. Mentoring is an interpersonal relationship that requires individuals who enjoy engaging others in conversation and seek out relationships with others. Extraverted mentors may spend more time getting to know their protégé, thus strengthening the bond between the two partners. Mentors who are extraverted may be more likely to provide psychosocial functions, which require a high level of social interaction, since they excel in interpersonal relations. Individuals who are introverted might be less inclined to approach others and take the initiative to begin an interaction. Due to the nature of the mentoring relationship, where interaction is clearly essential, extraverted individuals would seem more apt to take part in such activities. Therefore, it is hypothesized that:

Hypothesis 10 - Mentors who are higher on Extraversion will provide more psychosocial mentoring than will mentors who are lower on Extraversion.

Extraversion and Benefit Others Motive

Extraverts are generally positive, social, energetic, joyful and interested in other people (Costa & McCrae, 1992). These individuals tend to express sympathy for others (Richendoller & Weaver, 1994) and are found to be perceptive listeners during interpersonal interactions (Weaver & Viallaume, 1995). Weaver, Watson, and Barker (1996) conducted a study of 1,631 students and found that extraverts endorse a people listening style. The people listening style is a preference where concern for others' feelings and emotions are considered to be important. In a meta-analysis of the relationship between personality and organizational citizenship behavior, Organ and Ryan (1995) found that extraverted individuals tended to engage in these types of behaviors due to a desire to help others, or altruistic tendencies. Kirchmeyer and Bullin (1997) found that Extraversion predicted nurses' valuing of the people with whom they work. These findings suggest that extraverted mentors may engage in the mentoring relationship out of a desire to make a difference in the life of a protégé, given their altruistic tendencies and general concern for others.

In addition, research suggests that these individuals tend to be more sympathetic towards others, engage in organizational citizenship behaviors, and place a high value on the company and welfare of others. Mentors who are motivated to mentor in order to benefit others do so out of a desire to help the organization or other people, in general. Extraverted mentors might be motivated to mentor in order to benefit others given that they are generally sympathetic, have positive attitudes, and genuinely care about others. Thus, it seems likely that individuals high on Extraversion would be more motivated to

mentor in order to benefit others since they are generally positive individuals, exude lots of energy and are more interested in others than introverts. It is therefore hypothesized that:

Hypothesis 11 - Mentors who are higher on Extraversion will be more motivated to mentor in order to Benefit Others than will mentors who are lower on Extraversion.

Machiavellianism and Psychosocial Mentoring

Machiavellianism is a personality style that is characterized by manipulativeness, cynicism about human nature and shrewdness in interpersonal behavior (Christie & Geis, 1970). A number of studies have linked high Machiavellians to negative indicators of interpersonal relationships. For example, Touhey (1977) found that subjects were less attracted to individuals who displayed traits such as coldness, detachment, and the taking of social distance. That is, they were less attracted to high Machiavellians. Interpersonally, high Machiavellians tend to be task- rather than person-oriented and adopt an emotionally detached, pragmatic style (Geis, 1978).

High Machiavellians are more adept at lying and deceiving others (Geis & Moon, 1981), lack interpersonal warmth (Gurtman, 1991) and have a preference for the use of indirect and nonrational influence tactics with others (Grams & Rogers, 1989). These individuals are apt to behave unethically (Hegarty, 1995; Jones & Kavanagh, 1996), demonstrate high levels of neuroticism (Allsopp, Eysenck, & Eysenck, 1991), and are viewed as opportunistic (Christie & Geis, 1970), manipulative (Cherulnik, Way, Ames, & Hutto, 1981) and exploitative (Vecchio & Sussmann, 1991). In addition, high

Machiavellians tend to take advantage of extended trust (Harrell & Hartnagel, 1976), are negatively associated with indicators of adjustment, such as self-esteem and subjective well-being (McHoskey et al., 1999), and are perceived as suspicious, judgmental, uncaring, overbearing, untrustworthy, and undependable. All of these studies indicate that high Machiavellians are unlikely to act as role models, counselors, or friends to protégés, which are roles associated with providing psychosocial support as a mentor. That is, they do not trust people in general, are cold and hostile toward others, and generally use others for their own ends. These characteristics are surely not conducive to a mentoring relationship.

Allen (2003) stated that, "individual difference variables such as Machiavellianism might relate to self-focused motives for mentoring others, particularly self-enhancement. This type of personality-motive combination may be more likely to produce some of the negative or dysfunctional mentoring behaviors that mentoring researchers recently have begun to investigate" (p. 24). Clearly, such individuals would be less likely to provide psychosocial support to protégés. Mentoring is an intense interpersonal relationship, and the provision of psychosocial functions requires a mentor to act as a coach, advisor, or counselor to his or her protégé. Mentors who are high on Machiavellianism may act cold and emotionally detached when meeting with their protégé, thus conveying the sense that they are not interested in their protégé's problems or issues.

Psychosocial functions require a sense of mutual trust between the mentor and the protégé in order for the protégé to feel comfortable sharing his fears and desires with his

mentor. High Machiavellian mentors may lie or deceive their protégé in pursuit of enhancing their own image, thus decreasing the level of trust the protégé may have in his mentor. Their tendency to be less trusting and to act in an aloof manner may discourage the protégé from discussing personal issues with the mentor or to view them as a role model or friend. Given that mentors who are higher on Machiavellianism tend to be perceived as suspicious, judgmental, uncaring, overbearing, untrustworthy, and undependable, which are all traits that are not conducive to a positive interpersonal relationship, it is evident that these individuals will provide less coaching, counseling, or friendship to their protégé. Therefore, it is hypothesized that:

Hypothesis 12 - Mentors who are higher on Machiavellianism will provide less psychosocial mentoring than will mentors who are lower on Machiavellianism.

Machiavellianism and Self-Enhancement Motive

Mudrack (1990) conducted a meta-analytic review of 20 studies and found a positive relationship between Machiavellianism and external locus of control. Solar and Bruehl (1971) explained this relationship by stating that, "high Machiavellians manipulate others out of a feeling of powerlessness and endorse external beliefs in reinforcement" (p. 1080). McHoskey (1995) found that Machiavellianism was positively associated with the entitlement and exploitativeness aspects of narcissism, which implies that these individuals may engage in activities that enhance their need for attention and admiration. Finally, Machiavellians tend to emphasize extrinsic goals (e.g., financial success) and are not driven by intrinsic goals (e.g., community feeling) (McHoskey, 1999). McHoskey's results imply that those scoring high on Machiavellianism devote

their time to acquiring money rather than developing the meaningful social relationships that are critical for human well being. Given that Machiavellians tend to be narcissistic and to emphasize extrinsic goals over intrinsic goals, it is hypothesized that:

> *Hypothesis 13* - Mentors who are higher on Machiavellianism will be more motivated to mentor for Self-Enhancement reasons than will mentors who are lower on Machiavellianism.

Machiavellianism & Benefit Others Motive

High Machiavellians tend to be detached and typically feel little emotional involvement with either people or situations (Christie & Geis, 1970). They are less likely to accept others' wishes or beliefs without justification, are suspicious of others, and are politic, not personal. High Machiavellians are manipulative (McLaughlin, 1970), aggressive (Russell, 1974), have no trust in others and are not conscientious or nurturing towards them (Lamdan & Lorr, 1975), have little empathic capacity and little respect for others (Abramson, 1973), and, in a study of the choice of values, tend to rank equality, honesty, and forgiveness significantly lower than others (Okanes, 1974).

McHoskey (1999) conducted three studies which examined the goals and motivational orientations associated with Machiavellianism. He concluded that "high-scoring Machiavellian participants reported a general control-oriented motivational orientation that is manifested in aspirations for financial success and a relative deemphasis on community, family, and self-love related goals, [as well as] a high degree of alienation and antisocial behavior, but little social interest or prosocial behavior" (McHoskey, 1999, p. 280). Wolfson (1981) found similar results, which indicated that

Machiavellians are not motivated for prosocial or altruistic reasons. In his study, while working on an apparent experimental task, students heard a loud crash and cries for help coming from outside the experimental room. Low Machiavellians helped significantly more (89% of the trials) than did high Machiavellians (67% of the trials).

Individuals high in Machiavellianism tend to be untrusting of others, and may therefore be unwilling to pass their knowledge on to a protégé or, for that matter, even engage in such relationships. That is, it seems reasonable that such individuals would refrain from engaging in mentoring activities that are, by their very nature, intended to share knowledge and support with others. In addition, given their lack of interest in others and the fact that they tend to be motivated for self-serving reasons, rather than altruistic ones, it is reasonable to assume that mentors who are high on Machiavellianism will be less likely to be motivated in order to benefit others. Thus, it is hypothesized that:

> *Hypothesis 14* - Mentors who are higher on Machiavellianism will be less motivated to mentor in order to Benefit Others than will mentors who are lower on Machiavellianism.

Motives for Mentoring Related to Mentoring Functions

With regard to motives for mentoring, Allen (2003) found that mentors reporting greater motivation to mentor for self-enhancement reasons were more likely to provide career development functions, while mentors motivated by intrinsic satisfaction provided psychosocial functioning. In addition, she found that mentors who were motivated to mentor in order to benefit others reported providing both career and psychosocial functions to protégés. The current study will be a replication and extension of Allen's

findings due to the fact that the study will be conducted within an academic sample and there will be multiple sources of data with regard to mentoring functions (i.e., mentor, protégé, raters). Therefore, it is hypothesized that:

Hypothesis 15 - Self-enhancement motives will be positively related to career functions.

Hypothesis 16 - Intrinsic satisfaction motives will be positively related to psychosocial mentoring.

Hypothesis 17 – Benefit others motives will be related to both career and psychosocial functions.

Mentoring Functions and Outcomes for the Protégé

The mentoring literature has provided evidence suggesting that having a mentor results in a number of benefits to the protégé. Allen et al. (2003) conducted a meta-analysis to determine both subjective (e.g., career satisfaction) and objective (e.g., compensation) career benefits associated with mentoring for the protégé. Comparisons were made between mentored versus nonmentored groups, as well as the relationships between mentoring functions provided and outcomes. Their results indicated that mentored individuals were more satisfied with their jobs, more satisfied with their careers, more likely to believe that they would advance in their careers, more likely to be committed to their careers, and had greater intentions to stay with their current organizations than were nonmentored individuals.

Allen et al. (2003) found that career mentoring was positively related to greater compensation, greater salary growth, more promotions, career satisfaction, job

satisfaction and satisfaction with the mentor. Psychosocial mentoring was related to greater compensation, more promotions, greater career satisfaction, greater job satisfaction, stronger intentions to stay with the organization, and greater satisfaction with the mentor. These results suggest that individuals who are mentored will benefit in some way. The current study will examine a number of outcomes from the viewpoint of the protégé. Protégés will be asked to indicate their level of satisfaction with the mentoring relationship, as well as their desire to continue the relationship with their mentor. In addition, several outcome measures that are relevant to an academic setting will be assessed. School self-efficacy, school stress, and physical symptoms of stress will be evaluated both before and after the mentoring relationship occurs in an attempt to explore the positive effect that mentoring may have on these variables. Given that individuals who are in a mentoring relationship experience a number of benefits as a result of having a mentor, it is hypothesized that:

> *Hypothesis 18* – Protégés who receive higher levels of mentoring functions will be (a) more satisfied with the relationship, (b) feel greater desire to continue the relationship, (c) will experience less school and (d) physical stress, and (e) will show greater school self-efficacy than will protégés who receive lower levels of mentoring functions.

Chapter 2

Method

Participants

One hundred eighty-two undergraduate students from the University of Central Florida took part in this study. Participants were grouped into 91 mentor/protégé dyads. Both mentors and protégés were recruited from a variety of academic colleges and programs (e.g., College of Arts and Sciences, Business Administration, Criminal Justice) (See Appendix A for recruitment information).

The mentor sample ($N = 91$) consisted of 25 (27.5%) males and 66 females. The average age was 21.81 ($SD = 2.10$), and mentors were either juniors ($N = 46$) or seniors ($N = 45$). Seventy-eight percent ($N = 71$) of the mentors were Caucasian/white, 5.6% (N = 5) were African-American/black, 7.8% ($N = 7$) were Hispanic, and 7.7% ($N = 7$) were from other minority groups. The average G.P.A. for mentors was 3.24 (Range = 2.0 to 3.93). Demographic frequencies for mentors are found in Table 1.

The protégé sample ($N = 91$) consisted of 26 males (28.6%) and 65 females. The average age was 18.53 ($SD = 0.57$), and protégés were freshmen either in their first or second semester. Sixty-seven percent ($N = 59$) of the protégés were Caucasian/white, 15.9% ($N = 14$) were African American, 10.2% ($N = 9$) were Hispanic, and 6.8% ($N = 6$) were from other minority groups. Data were missing from three protégés regarding race.

The average G.P.A. for protégés was 3.33 (Range = 1.30 to 4.20). Demographic frequencies for protégés are found in Table 2.

All participants were paid $8 an hour for their participation. The Office of Naval Research funded this study.

Procedure

Protégés were randomly assigned to mentors. Both mentors and protégés took part in a one-hour orientation.

Mentor Orientation. At the start of the mentor orientation, mentors were given a Mentor Handbook (See Appendix B) containing information concerning their responsibilities, payment information, possible topics of discussion with their protégé, current UCF facts, rules and regulations of UCF, the UCF Code of Conduct, frequently asked questions about UCF, information about obtaining a SASS degree audit, and university requirements.

Mentor orientation (See Appendix C) consisted of the following: 1) Mentors read and signed an Informed Consent form (See Appendix D) for the Naval Air Warfare Center Training Systems Division, and received a copy with their signature and the researcher's signature; 2) Mentors read over the UCF Code of Conduct and signed a form (See Appendix E) agreeing to abide by the Code of Conduct while participating in the study; 3) Mentors were informed of their responsibilities as a mentor, payment information, possible topics of discussion and the UCF Code of Conduct; 3) Mentors were informed that all sessions would be videotaped; and 4) Mentors filled out a number of measures (See Appendix F).

Protégé Orientation. At the start of the protégé orientation, protégés were given a Protégé Handbook (See Appendix G) containing information concerning their responsibilities, payment information, possible topics of discussion with their mentor, and the UCF Code of Conduct. Protégé orientation (See Appendix H) consisted of the following: 1) Protégés read and signed an Informed Consent form for the Naval Air Warfare Center Training Systems Division and received a copy with their signature and the researcher's signature; 2) Protégés read over the UCF Code of Conduct and signed a form agreeing to abide by the Code while participating in the study; 3) Protégés were informed of their responsibilities as a protégé, payment information, possible topics of discussion and the UCF Code of Conduct; 3) Protégés were informed that all sessions would be videotaped; and 4) Protégés filled out a number of measures (See Appendix I).

Mentoring Sessions. Mentors and protégés met once a week for four weeks. Each session was thirty minutes in length and occurred at the same time each week. If either the mentor or protégé missed a session, they made it up that week in order to continue with the study. Reminder calls and email messages were placed to all participants the day before and the day of their mentoring session in order to ensure few dropouts. In addition, each participant was given a contact card with a phone number they could call in case they anticipated being late or missing a session.

Each session consisted of the mentor and protégé sitting in a closed room on two chairs facing each other. The mentor was given a Mentor Handbook, blank paper, and a pen. The video camera was set up on a tripod so that the lens was facing the mentor in order to capture the mentor's body language for coding of mentoring functions. Lapel

microphones were attached to each participant's shirt to record sound. The researcher read an experimental script throughout each of the four sessions (See Appendix J).

At the beginning of each mentoring session, the researcher welcomed the participants and reminded them that one of the researchers would let them know when there was one minute left and when the session was completed. In addition, the researcher reminded the participants that they would be videotaped during the entire session. The researcher started the videotape and a stopwatch, and then left the room. When there was one minute left, the researcher opened the door and said, "One minute left", and then closed the door. When thirty minutes had passed, the researcher opened the door and said, "Ok, time's up. Please say goodbye." Once the participants had completed the session, the researcher stopped the videotape and removed it from the video camera. Both participants and the researcher signed a payment form for the session and the participants left the room.

After the fourth and final mentoring session, the researcher allowed both participants to exchange personal information and had them fill out a number of measures (See Appendices K & L). While the participants were filling out their final measures, the researcher calculated the total payment for each participant and had them sign a form verifying this. Before the participants left, the researcher debriefed them and provided contact information if they wished to learn more about the study once it had been completed.

Measures

Both mentors and protégés filled out measures during orientation and after the fourth experimental session. At orientation, mentors filled out a demographic form, a measure of goal orientation, a measure of intrinsic/extrinsic motivation, a measure of Machiavellianism, a measure of the Big-Five Personality Traits, and a measure of motivation to mentor. At the final session, mentors filled out a measure of career and psychosocial functions.

At orientation, protégés filled out a demographic form, a measure of school stress, a measure of physical symptoms of stress, and a measure of school self-efficacy. After the final mentoring session, protégés filled out a measure of career development and psychosocial functions, a measure of school stress, a measure of physical symptoms of stress, a measure of school self-efficacy, a measure of their desire to continue the mentoring relationship, and a measure of their satisfaction with the relationship.

Mentor Measures

Learning Goal Orientation. Learning goal orientation (e.g., "The opportunity to learn new things is important to me") was measured by an eight-item scale developed by Button, Mathieu, and Zajac (1996). Higher scores indicate a higher degree of learning goal orientation. Participants were asked to select the response that best reflected their level of agreement or disagreement with each statement on a 7-point Likert-scale, ranging from (1=Strongly Disagree) to (7=Strongly Agree). Coefficient alpha in the current study was .94.

Intrinsic Motivation. Subjects responded to the College Student Version of the Work Preference Inventory (WPI). It was designed as a direct, explicit assessment of individual differences in the degree that college students perceive themselves to be intrinsically and extrinsically motivated toward what they do. For intrinsic motivation, these elements included (a) self-determination, (b) competence, (c) task involvement, (d) curiosity, and (e) interest. Items were written in the first person, and participants were asked to indicate the extent that each of the 15 items described them (on a 4-point scale, from 1 = *never or almost never true of me* to 4 = *always or almost always true of me*). In the current study, coefficient alpha was .62 for Intrinsic Motivation.

Machiavellianism. The Mach V, developed by Christie and Geis (1970), is an instrument that attempts to distinguish between the behavior of a person who agrees with Machiavelli's ideas (a "high Mach") and that of a person who disagrees with such ideas (a "low Mach"). It was designed to measure a person's general strategy for dealing with people, especially the degree that he or she feels other people can be manipulated in interpersonal situations.

The Mach V consists of twenty groups of three statements, which fall into three areas: 1) the nature of interpersonal tactics; 2) views of human nature; and 3) abstract or generalized morality. Participants must respond in a forced-choice format. In each group of statements, one statement is keyed to the variable the scale is supposed to measure; another statement refers to a different variable that has been judged to be equal to the first in social desirability; a third statement is a "buffer" statement that is either much lower or much higher in social desirability than the other two (Christie, 1978).

Participants were asked to first choose the statement that is *most true* and to assign it a plus (+) sign. Then he or she decided which of the remaining two statements was *most false* and assigned it a minus (-) sign. The third statement was left unmarked. The Machiavellian scale was scored two different ways. In the original scorekey, the number of points associated with each group of statements (items) was determined by assigning 1, 3, or 5 points for the particular combination of letters (a, b, or c) and plus or minus items that was chosen. For example, if for the first group of statements the participant marked Statement B with a plus (+) and statement C with a minus (-), his or her score for that particular item (group of statements) would be 3. The points for each item were then summed up and 20 points were added. The scores ranged from 40 to 160 with 100 acting as the neutral point. Higher scores were more indicative of High Machiavellianism. Christie and Geis (1970) reported a coefficient alpha of .78, however in the current study the resulting coefficient alpha was .37.

In an effort to improve the low reliability that resulted from the original scoring method, the scores were derived in another manner. Each of the 20 items were dummy-coded so that if a participant chose the High Machiavellian response, he or she received 1 point; if a participant chose any other response combination, he or she did not receive any points for that item. Using the revised scoring system, the range of possible scores was from 0 to 20 points, with higher scores more indicative of high Machiavellianism. Coefficient alpha was .42. This scoring was used in all subsequent analyses.

NEO Five Factor Inventory. The NEO-FFI is a sixty-item questionnaire designed to operationalize the five-factor model of personality. It was developed by McCrae and

Costa (1992) through rational and factor-analytic methods in a series of studies using adult volunteers ranging in age from 20 to 90 years. There are five global scales measuring Neuroticism (N), Extraversion (E), Openness to Experience (O), Agreeableness (A), and Conscientiousness (C). In the current study, participants completed the Extraversion, Agreeableness, and Conscientiousness scales, which consisted of 12 items each. A sixth-grade reading level is sufficient to understand the items, and most respondents require about 10-15 minutes to complete the questionnaire.

The NEO-FFI has been used with college students and with adults of all ages. Research has shown that after age 30, there are few changes in personality; thus, two normative age groups- college students and adults-are sufficient, and separate profiles are offered for each (McCrae & Costa, 1991). In a longitudinal retest of the normative sample, 3-to-6 year stability coefficients for the scales ranged from .68 to .83. Coefficient alphas for the E, A, and C scales were .87, .76, and .86 (Costa & McCrae, 1988). Spouse and peer ratings on the observer form show similar levels of reliability, and the scales have been validated in a number of studies (See Costa & McCrae, 1988). Participants were asked to indicate the extent that they agreed or disagreed with each statement on a 5-point Likert scale, ranging from (1=strongly disagree) to (5=strongly agree). Coefficient alphas for Extraversion, Agreeableness, and Conscientiousness in the current study were .79, .78, and .86, respectively.

Motives to Mentor. Motives to mentor were measured with an eleven-item scale based on Allen's (2003) original eleven-item scale. The three factors that comprise this scale include: 1) self-enhancement (e.g., "To earn respect from others"), 2) intrinsic

satisfaction (e.g., “The personal pride that mentoring someone brings”), and 3) benefit others (e.g., “To benefit my university”). The benefit others and self-enhancement scales were each comprised of four items, while the intrinsic satisfaction scale was comprised of three items. Participants were asked to indicate the extent that each item motivated them to become a mentor as part of this study on a 5-point Likert scale, ranging from (1=no extent) to (5=great extent).

Since items were modified to fit the academic setting, and because some new items were created, a pilot study was conducted. Ten subject matter experts (i.e., graduate psychology students familiar with mentoring theory) were provided with definitions for the three factors (i.e., self-enhancement, intrinsic satisfaction, benefit others) and asked to sort a list of 19 items (i.e., Allen’s eleven plus eight new potential items) into each factor. Pilot study participants also rated the appropriateness of each item given the specific constraints of the current study (e.g., limited interaction between mentor and protégé). Items were retained if seven or more subject matter experts assigned them to the same factor and found them applicable to the present study. As a result, three items were removed from Allen’s original scale, as they did not fit within the academic context of the current study. Six of the nine new items were included with the original scale due to their academic nature.

A factor analysis was conducted to ascertain the loadings of the motivation to mentor items. In a recent study conducted by Allen (2003), three factors representative of three different motivations to mentor (i.e., self-enhancement, intrinsic satisfaction, benefit others) emerged. One aim of the current study was to ascertain the robustness of

the 3-factor structure. A principal axis factor analysis with a forced 3-factor solution and oblimin rotation was conducted. The factor loadings are presented in Table 5. Although the items were not identical to the items used in the original Allen study, a similar 3-factor structure emerged, with the exception of three items, which were removed due to low loadings on the expected factors or comparable loadings across multiple factors. Item 4 ("Because I am being paid for participating in this mentoring program"), which was expected to load on the self-enhancement scale, was removed from that scale. Item 6 ("To benefit my university"), which was expected to load on the benefit others scale, was removed. Finally, item 14 ("A desire to gain mentoring experience"), which was expected to load on the intrinsic satisfaction scale, was also removed. The final coefficient alphas were .90 for the intrinsic satisfaction motive scale, .92 for the benefit others motive scale, and .85 for the self-enhancement motive scale.

Protégé Measures

School Stress. School-related stress was measured with three items (e.g., "I have been under a great deal of tension this semester") adapted from Allen, McManus, and Russell (1999), and was administered to all protégés at the beginning and end of the study. To assess the extent that mentors helped reduce their school-related stress, protégés were asked to indicate their level of agreement with each item on a 6-point Likert scale, ranging from (1=strongly disagree) to (6=strongly agree). Coefficient alpha for this scale at Time 1 was .84 and at Time 2 was .85, and this is consistent with reliability estimates found in other research (Allen et al., 1999).

Physical Symptoms of Stress. The Physical Symptoms Inventory was developed by Spector and Jex (1998) to assess physical, somatic health symptoms thought to be associated with psychological distress. Each item is a condition/state about which a person would likely be aware (e.g., headache). Protégés were asked to indicate for each symptom how many times they might have experienced it in the past thirty days (e.g., none, 1, 2, 3, 4, or more than four times). Coefficient alpha for this study was .84 at Time 1 and .88 at Time 2.

School Self-Efficacy. School Self-Efficacy is a measure developed by Smith-Jentsch (2003) that contains 15 task statements pertaining to an academic situation (e.g., "Do well on your exams" and "Take good class notes"). Participants were asked to indicate their degree of confidence in completing a number of academically related tasks on a 6-point Likert scale, ranging from (1=strongly disagree) to (6=strongly agree). Coefficient alpha for this measure in previous studies has been found to be .86; in the current study, it was .90 and .89 at Time 1 and Time 2.

Desire to Continue Mentoring Relationship. At the end of the study, protégés were asked if they would like to continue the relationship with their mentor. This measure, which was developed for this study, consists of four items (e.g., "I would like to continue the relationship with my mentor"). Participants were asked to indicate their level of agreement with each statement on a 6-point Likert scale, ranging from (1=strongly disagree) to (6=strongly agree). Coefficient alpha was .87.

Satisfaction with the Mentoring Relationship. At the end of the study, protégés were asked if they were satisfied with the mentoring relationship. This measure, which

was developed for this study, consists of six items (e.g., "I was extremely satisfied with my assigned mentor"). Participants were asked to indicate their level of agreement with each statement on a 6-point Likert scale, ranging from (1=strongly disagree) to (6=strongly agree). Coefficient alpha was .96.

Shared Measures

Mentoring Functions. Mentoring functions were gathered from three sources. These sources included mentor self-reports of career and psychosocial functions, protégé self-reports of career and psychosocial functions, and behavioral coding of videotapes for mentoring functions by independent raters.

Noe's (1988) Mentor Function Scale was used to assess mentor and protégé self-reports of mentoring functions. All items were adapted to fit within an academic context. Twelve items measured psychosocial mentoring (e.g., "My mentor demonstrated good listening skills in our conversations"). Nine items measured career development mentoring (e.g., "I helped my protégé review assignments or meet deadlines that otherwise would be difficult to complete"). Participants were asked to indicate the extent that they provided/received mentoring using a five-point Likert-type response scale, ranging from (1=no extent) to (5=great extent). Coefficient alpha for mentor self-reports was .81 for career development mentoring and .80 for psychosocial mentoring. Coefficient alpha for protégé self-reports was .89 for career development mentoring and .88 for psychosocial mentoring.

In addition to survey measures, two trained independent raters viewed the four mentoring sessions for each mentor on videotape. The three raters were advanced

graduate students who were enrolled in an Industrial/Organizational Psychology doctorate program. Raters were trained using mock videotapes, as well as written exercises, until they achieved a high level of reliability in rating. These individuals used behaviorally anchored rating scales (Please see Appendix N), based upon Noe's Mentor Function Scale (1988), to rate each session on a 5-point Likert scale in regard to the sub dimensions of career development (i.e., coaching, exposure and visibility, and sponsorship) and psychosocial mentoring (i.e., counseling, acceptance and confirmation, and role modeling). The protection sub dimension of career development was taken out given its similarity to coaching and the limitations under which it could manifest in the current study (e.g., mentors and protégés were not allowed to interact outside of the study, thus the mentor would not be able to protect the protégé from any academic/personal risks). For each mentoring session, raters took notes and made an overall rating for each dimension after they had watched the complete session.

Each mentor dyad was assigned a videotape on which all four mentoring sessions were recorded. Each week and over the course of four weeks, the same videotape was used to record that particular dyad's mentoring sessions. Three raters were trained on the coding scheme and two of the three raters rated each session. Rater 1 rated all of the mentoring sessions for all of the dyads (N=90), Rater 2 rated all of the mentoring sessions for half of the dyads (N=46), and Rater 3 rated all of the mentoring sessions for the remaining dyads (N=44). A single videotape was damaged (Dyad 82), thus no ratings were recorded for that particular dyad. The videotapes were divided among the three raters, who then provided ratings on each of the mentoring sessions starting with Session

1 and proceeding in numerical order (e.g., Dyad 1, Dyad 2). For example, Rater 1 independently rated Session 1 for Dyad 1 first, then Session 1 for Dyad 2, and so forth, until he or she had rated all of the first sessions for the batch of videotapes he or she had. The process was then repeated for Sessions 2, 3 and 4. When the rater had completed ratings for all four sessions for the set of videotapes they were rating, he or she switched videotapes with another rater and repeated the process. Therefore, the initial ratings were conducted independent of one another. Once all the ratings were completed, the individual ratings assigned by each rater were examined to determine whether or not a consensus meeting was required with regard to a particular rating.

If the ratings assigned for a given dimension were within one point of each other (e.g., one rater assigned a 3 and the second assigned a 4), the two ratings were averaged. If the ratings assigned were more than one point apart (e.g., one rater assigned a 3 and the second assigned a 5), the two raters met and came to consensus. The two raters assigned ratings for all four sessions for each mentor. The average rating across the four sessions was used in the analyses as the best estimate of overall career and psychosocial mentoring provided throughout the relationship.

There were a number of missing sessions that did not receive ratings due to sound problems (i.e., mentor or protégé inaudible or no sound recorded), incorrect dyads recorded on the wrong videotape, and failure to record some sessions. The following sessions were not rated due to sound problems: Dyad 1, Session 1; Dyad 8, Session 3; Dyad 38, Session 3; Dyad 39, Session 1; Dyad 43, Session 3; Dyad 46, Session 2; Dyad 49, Session 2; Dyad 64, Session 2; and Dyad 95, Session 3. The following sessions were

not rated due to incorrect dyads recorded on the videotape: Dyad 12, Session 3; and Dyad 78, Session 3. Finally, Dyad 92, Session 4, was not rated due to the fact that the session was not recorded. In the aforementioned instances where a particular session could not be rated, calculations for the dyad in question were based on the remaining sessions (e.g., calculations for Dyad 64 were based on three sessions rather than four).

Interrater reliability between the original ratings of the three raters was assessed using the intraclass correlation. In order to determine the average intraclass correlation for career mentoring and psychosocial mentoring, the average intraclass correlation was first calculated between the two raters for each mentoring session and for each dimension. For example, the intraclass correlation was calculated for Dyad 1, Session 1, Acceptance and Confirmation between Rater 1 and Rater 2, and between Rater 1 and Rater 3. When the sample size was equivalent, the average of these two ratings was taken (e.g., average intraclass correlation for Session 1, Acceptance and Confirmation). However, when the sample size was not equivalent (e.g., 44 and 46), the weighted average of the two ratings was calculated. This resulted in a total of 48 intraclass correlations at the session/dimension level.

The average intraclass correlation for a particular dimension across sessions was calculated next. For example, the average intraclass correlation was calculated for the sub dimension labeled Acceptance and Confirmation, across Sessions 1, 2, 3 and 4. This procedure was followed for all six of the mentoring sub dimensions. Finally, the average intraclass correlation for the psychosocial ratings was calculated by taking the average across the three psychosocial mentoring sub dimensions. This procedure was repeated

for career development ratings. The intraclass correlation for the psychosocial ratings was ICC (2,2) = .33 and for the career development ratings was ICC (2,2) = .41. Coefficient alpha in the current study was .42 for career development and .86 for psychosocial ratings.

Chapter 3

Results

Tables 3 and 4 present intercorrelations, means and standard deviations of the study variables.

Hypothesis Testing

Zero order correlations were used to test Hypotheses 1 through 17. Hypothesis 1 stated that mentors higher on intrinsic motivation would provide more career development mentoring than would mentors lower on intrinsic motivation. This hypothesis was partially supported. Mentors with higher intrinsic motivation reported providing greater career development mentoring ($r = .21$, $p = .05$) than did mentors with lower intrinsic motivation. However, protégé and independent rater reports of career development received were not significantly correlated with the mentor's intrinsic motivation.

Hypothesis 2, which stated that mentors higher on intrinsic motivation would provide more psychosocial mentoring than would mentors lower on intrinsic motivation, was not supported. Mentor, protégé, and independent rater ratings of psychosocial mentoring were not related to mentor intrinsic satisfaction. However, as predicted in Hypothesis 3, mentor intrinsic motivation was positively associated with motivation to mentor for intrinsic satisfaction reasons ($r = .25$, $p < .05$).

Hypothesis 4, which stated that mentors higher on learning goal orientation would provide more career development mentoring than would mentors lower on learning goal orientation, was not supported. Mentor, protégé, and independent rater ratings of career development mentoring were not related to mentor learning goal orientation. Mentors higher on learning goal orientation were more motivated to mentor for intrinsic satisfaction reasons than were mentors lower on learning goal orientation ($r = .28$, $p < .01$), thus supporting Hypothesis 5.

Mentor conscientiousness was not related to career development mentoring (Hypothesis 6). In addition, mentor conscientiousness was not related to the motivation to mentor for the benefit of others (Hypothesis 7). Although not predicted, mentor conscientiousness was related to mentor reports of psychosocial mentoring provided ($r = .23$, $p < .05$) and to motivation to mentor for intrinsic satisfaction ($r = .35$, $p < .01$).

Hypothesis 8, which stated that mentors higher on agreeableness would provide more psychosocial mentoring than would mentors lower on agreeableness, was not supported. It was predicted that mentors higher on agreeableness would be more motivated to mentor in order to benefit others than would mentors lower on agreeableness (Hypothesis 9). This hypothesis was supported ($r = .21$, $p < .05$). Although it was not predicted, mentor agreeableness was also related to motivation to mentor for intrinsic satisfaction reasons ($r = .25$, $p < .05$).

Hypothesis 10, which stated that mentors higher on extraversion would provide more psychosocial mentoring than would mentors lower on extraversion, was not supported. Extraverted mentors were more motivated to mentor in order to benefit others

than were mentors lower on extraversion ($r = .21$, $p < .05$) (Hypothesis 11). Although it was not predicted, extraverted mentors were also more motivated to mentor for intrinsic satisfaction reasons than were mentors lower on extraversion ($r = .32$, $p < .01$).

Hypothesis 12 stated that mentors higher on Machiavellianism would provide less psychosocial mentoring than would mentors lower on Machiavellianism. This hypothesis was partially supported in that protégé (but not mentor or independent rater) reports of psychosocial mentoring were negatively related to Machiavellianism ($r = -.24$, $p < .05$). It was predicted in Hypothesis 13 that mentors higher on Machiavellianism would be more motivated to mentor for self-enhancement reasons than would mentors lower on Machiavellianism. However, this hypothesis was not supported. Hypothesis 14 was supported. Mentors higher on Machiavellianism reported that they were less motivated to mentor in order to benefit others ($r = -.25$, $p < .05$) than were mentors lower on Machiavellianism.

Hypothesis 15 stated that self-enhancement motives would positively relate to career development mentoring. This hypothesis was partially supported. Mentors who reported being motivated to mentor for self-enhancement reasons also reported providing more career development mentoring ($r = .34$, $p < .01$) than mentors who were not motivated to mentor for self-enhancement reasons (but not protégé or independent raters). In addition, although it was not predicted, self-enhancement motivation to mentor related to mentor reports of psychosocial mentoring ($r = .28$, $p < .01$).

Hypothesis 16, which stated that intrinsic satisfaction motives would positively relate to psychosocial mentoring, was fully supported. Mentors who were motivated to

mentor for intrinsic satisfaction reasons reported providing higher levels of psychosocial mentoring ($r = .30$, $p < .01$). Protégé reports ($r = .28$, $p < .01$) and independent rater ratings ($r = .26$, $p < .05$) of psychosocial mentoring were also significantly related to intrinsic satisfaction motivation to mentor. In addition, although it was not hypothesized, mentor reports of career mentoring ($r = .37$, $p < .01$) were significantly related to intrinsic satisfaction motives to mentor.

Hypothesis 17 stated that benefit others motives would positively relate to both career and psychosocial mentoring. This hypothesis was partially supported. The benefit others motive was significantly related to mentor ratings of career development mentoring ($r = .25$, $p < .01$).

Hypothesis 18

Hypothesis 18 was tested using both correlational (18a, 18b) and hierarchical regression analyses (18c, 18d, 18e). Hierarchical regression analyses were employed to determine the relationship between career and psychosocial mentoring and protégé reports of school self-efficacy, school stress, and physical symptoms of stress at Time 2, while controlling for these variables at Time 1. In each analysis, the Time 1 measure (e.g., school self-efficacy at Time 1) was entered at Step 1, thus controlling for the Time 1 measure's effect on the Time 2 measure. The mentoring function (e.g., mentor report of career mentoring) was entered at Step 2 to determine if there was a significant change in R^2. Six hierarchical regression equations were conducted for each of the three outcome variables, resulting in a total of 18 equations.

Hypothesis 18a stated that protégés who received higher levels of career development and psychosocial mentoring would be more satisfied with the mentoring relationship than would protégés who received lower levels of mentoring. This hypothesis was partially supported. Mentor reports of providing career development (r = .21, $p < .05$) and psychosocial mentoring (r = .27, $p < .05$) both related to protégé satisfaction with the relationship. Protégé reports of career development (r = .48, $p < .01$) and psychosocial mentoring (r = .63, $p < .01$) both significantly related to protégé satisfaction with the mentoring relationship. Finally, independent rater ratings of psychosocial (but not career development) mentoring (r = .39, $p < .01$) related to protégé satisfaction with the relationship.

Hypothesis 18b, which stated that protégés who received greater career development and psychosocial mentoring would be more likely to want to continue the mentoring relationship, was partially supported. Mentor reports of career development and psychosocial mentoring were not related to protégé desire to continue the relationship. Protégé reports of career development (r = .46, $p < .01$) and psychosocial mentoring (r = .57, $p < .01$) were significantly related to protégé desire to continue the relationship. Finally, protégé desire to continue the relationship was significantly related to independent rater ratings of psychosocial mentoring provided (r = .31, $p < .01$), but not to career development mentoring.

Hypothesis 18c stated that protégé reports of greater career development and psychosocial mentoring would relate to less school stress. Time 1 school stress was entered at Step 1 in the hierarchical regression equation and each of the sources of career

development and psychosocial mentoring (protégé, mentor, independent raters) were entered separately at Step 2, resulting in six different equations (See Tables 6-11). This hypothesis was partially supported. Protégés who reported higher levels of career development mentoring also reported less school stress at Time 2 ($\beta = -.17$, $p < .05$) than did protégés who reported lower levels of career mentoring when Time 1 school stress was controlled. Independent rater ratings of career development ($\beta = -.18$, $p < .05$) and psychosocial mentoring ($\beta = -.27$, $p < .01$) also resulted in less school stress at Time 2.

Hypothesis 18d stated that protégés who reported more career development and psychosocial mentoring would report less physical stress than would protégés who reported less mentoring. Time 1 physical symptoms of stress was entered at Step 1 in the hierarchical regression equation and each of the sources of career development and psychosocial mentoring (protégé, mentor, independent raters) were entered separately at Step 2, resulting in six different equations (See Tables 12-17). This hypothesis was not supported.

Hypothesis 18e stated that protégés who reported greater career development and psychosocial mentoring would report higher school self-efficacy than would protégés who reported less mentoring. Time 1 school self-efficacy was entered at Step 1 in the hierarchical regression equation and each of the sources of career development and psychosocial mentoring functions (protégé, mentor, independent raters) were entered separately at Step 2, resulting in six different equations (See Tables 18-23). This hypothesis was not supported.

Exploratory Regression Tests

Exploratory regression tests were conducted in order to provide additional information regarding Hypotheses 1-17. In the first set of regression equations, the following independent variables were entered simultaneously at Step 1: Intrinsic motivation, learning goal orientation, conscientiousness, the self-enhancement motive, and the benefit others motive. This process was conducted for the dependent variables of mentor reports, protégé reports, and independent rater ratings of career development mentoring (See Tables 24, 25, and 26). Both the self-enhancement motive ($\beta = .24$, $p < .05$) and the benefit others motive ($\beta = .24$, $p < .05$) contributed unique variance toward the prediction of mentor reports of career development.

In the second set of regression equations, the following independent variables were entered simultaneously at Step 1: Intrinsic motivation, agreeableness, extraversion, Machiavellianism, the intrinsic satisfaction motive, and the benefit others motive. This process was conducted for the dependent variables of mentor reports, protégé reports, and independent rater ratings of psychosocial mentoring (See Tables 27, 28, and 29). None of the independent variables used in this set of regression equations contributed unique variance toward the prediction of psychosocial mentoring.

In the third set of regression equations, two independent variables, intrinsic motivation and learning goal orientation, were entered simultaneously at Step 1. This process was conducted for the dependent variable of intrinsic satisfaction motive (See Table 30). Learning goal orientation contributed unique variance toward the prediction of the intrinsic satisfaction motive for mentoring ($\beta = .22$, $p < .05$).

In the final set of regression equations, the following independent variables were entered simultaneously at Step 1: Conscientiousness, extraversion, agreeableness, and Machiavellianism. This process was conducted for the dependent variable of benefit others motive (See Table 31). None of the independent variables used in this set of regression equations contributed unique variance toward the prediction of the benefit others motive.

Chapter 4

Discussion

The main purpose of this study was to investigate the relationship between mentor characteristics (i.e., motivational tendencies, personality traits), mentoring provided, and mentorship outcomes. Several links between mentor dispositional variables, mentoring motives, and mentoring provided were identified. The key findings of the current study provide support for the view that personality and motivational characteristics of the mentor may affect the type of mentoring provided, albeit indirectly in some cases. In addition, it is important to consider multiple sources of mentoring provided (i.e., mentor, protégé, independent rater) rather than just the protégé's point of view because this can provide a more well rounded picture of the mentoring relationship, as well as identify potential gaps in perception that may exist between mentors and protégés. Please see Table 32 for a list of hypotheses and whether or not they were supported.

As hypothesized, mentors who were generally more intrinsically motivated and learning goal oriented reported being more motivated to mentor others for intrinsic satisfaction reasons. In addition, although it was not hypothesized, individuals who were more conscientious, agreeable, and extraverted also reported being more motivated to mentor for intrinsic satisfaction reasons. This is important in that the intrinsic satisfaction motive related to mentor, protégé, and independent rater reports of psychosocial mentoring provided, as well as mentor reports of career mentoring provided. Due to the

fact the relationship was supported across multiple data sources, we can rule out common method bias as a potential explanation for this relationship.

The current study also found that mentors who were generally more intrinsically motivated reported providing more career mentoring. However, protégé and independent rater reports of career mentoring did not reflect this relationship. Similarly, although it was not hypothesized, mentors who were more conscientious tended to rate themselves as providing more psychosocial mentoring. This finding is consistent with research demonstrating a relationship between conscientiousness and performance in jobs involving the development of positive social relationships and a high level of social interaction (Mount, Barrick, & Stewart, 1998). In addition, conscientiousness is negatively correlated with many items on the Inventory of Interpersonal Problems (e.g., "I am too easily bothered by other people making demands of me" and "Hard to get out of relationships I don't want to be in") developed by Gurtman (1995), indicating that conscientious individuals usually don't experience large amounts of difficulty with interpersonal relationships. These studies may explain why conscientious mentors reported providing greater psychosocial mentoring to their protégés than did less conscientious mentors.

Mentors who were more extraverted and agreeable than their peers reported being more motivated to mentor in order to benefit others. This may be due to the fact that individuals high in Agreeableness and Extraversion tend to be motivated to maintain positive interpersonal relationships with others (Graziano et al., 1996; Organ & Ryan, 1995).

Mentors who scored high on Machiavellianism were less likely to report being motivated to mentor in order to benefit others and were less likely to provide psychosocial functions, as reported by the protégé. Given the nature of the high Machiavellian individual to be untrusting, cold, and less nurturing of others, it stands to reason that mentors high on Machiavellianism will not be motivated to mentor for prosocial or altruistic reasons, nor to act as role models, counselors, or friends to protégés, roles that are typically associated with providing psychosocial support as a mentor. However, these findings should be viewed with caution, as the scores from the Machiavellianism scale showed low reliability in the current study.

Attempts were made to address the low reliability ($\alpha = .37$), which occurred when the original scoring method was used. An alternative scoring method involved dummy-coding items as either a high-Machiavellian response or not. This method slightly improved the resulting reliability of the Machiavellian scale ($\alpha = .42$). One potential explanation for why the reliability estimate for this scale was low involves the nature of the sample itself. College students may have yet to form strong opinions about many sensitive issues. It may be that they were less reliable in choosing the statements that were most true or least true of them, rather than consistently choosing the high Machiavellian statement over the low. College students may have been reluctant to endorse items that were more controversial and emotionally charged (e.g., "The construction of such monuments as the Egyptian pyramids was worth the enslavement of the workers who built them"), thus making the scale highly susceptible to social desirability.

Another potential explanation for the low reliability stems from the fact that the coefficients for internal consistency and stability for the forced-choice scale of 20 triads are not very consistent and often not even reported by authors using this scale (Vleeming, 1979). More specifically, Vleeming suggests that the format and the scoring method for the Machiavellian scale may cause low and negative intercorrelations (preference for one item implies automatically rejection of another), which may yield scores with a limited amount of empirical support. This may explain why the reliability was low for this particular instrument.

With regard to the relationship between motives for mentoring and mentoring provided, the current study replicates the findings of Allen (2003) in that the self-enhancement motive was significantly related to mentor reports of career mentoring, the intrinsic satisfaction motive was significantly related to mentor and protégé reports of psychosocial mentoring, and the benefit others motive was significantly related to mentor reports of career mentoring. In fact, the strongest relationship was found between the self-enhancement motive and career mentoring in that it was the only variable that explained unique variance in the regression equations. However, in the Allen study, the intrinsic satisfaction motive contributed uniquely to psychosocial mentoring and the benefit others motive contributed uniquely to both psychosocial and career mentoring. These findings were not replicated in the current study.

The current results also differ from the results reported by Allen (2003) in that a relationship between the intrinsic satisfaction motive and career mentoring from the mentor's perspective was detected. In addition, a relationship was found between the

self-enhancement motive and psychosocial mentoring from the mentor's perspective. These additional findings may be due to differences between the two studies. For example, in the current study, students in an academic setting were asked to act as mentors, while in the original Allen study, participants who were working in a professional setting were asked to complete surveys about their experiences as a mentor. In addition, participants in the current study were recruited in person and were paid to participate, whereas in the Allen study, participants were recruited through mail and were not paid to participate. Finally, in the current study the instrument was modified to fit an academic setting, whereas in the Allen study, the items were more appropriate for a professional setting.

Past research has demonstrated that participants who are paid versus those who are not can impact the type of motivation (Deci, 1971). It is also possible that people in different stages of their careers are motivated for different reasons. For example, students might be motivated to participate in this type of study to build their resume or gain new skills that will better enable them to succeed in the workforce. However, more seasoned workers at later career stages might be more motivated than students to impart their knowledge to others. It seems reasonable that differences in the career stage of the participants and the study context could impact the reasons why someone would be motivated to mentor. Researchers may find it valuable to investigate these differences in the future.

With regard to protégé outcomes, in all but one rating source (i.e., independent rater ratings of career mentoring), career and psychosocial mentoring were significantly

related to protégé satisfaction with the mentoring relationship. Protégé desire to continue the relationship was related to protégé reports of both career and psychosocial mentoring. It is reasonable to assume that protégés who feel they are receiving a high level of mentoring will be more satisfied and more likely to want to continue the mentoring relationship. The current study did not find support for mentoring effecting changes on physical symptoms of stress, or protégé school self-efficacy. It may be that the period of time between Time 1 and Time 2 – four weeks – was too short to allow the mentoring relationship to have an effect on these particular outcomes. Future research should involve more long-term longitudinal studies that examine the impact of having a mentor on changes in physical stress and general self-efficacy.

Finally, independent rater ratings of both career development and psychosocial mentoring related to less school stress for protégés at Time 2. These findings support the rationale that having a mentor may help to relieve protégé school-related stress. Future research should examine the impact of the mentoring relationship on other types of stress in order to pinpoint the exact types of stress that may be alleviated.

Theoretical and Practical Implications

The current study provides both theoretical and practical implications for the field of mentoring. The aforementioned findings regarding the relationship between the intrinsic satisfaction motive and many of the personality traits that were measured in the current study suggest that there are many individual characteristics of the mentor that may predispose him or her to be motivated to mentor for intrinsic satisfaction reasons. Therefore, it wouldn't be surprising to find that other personality traits are highly related

to the intrinsic satisfaction motive for mentoring (e.g., openness to experience). We must also consider the fact that all of the mentors in the current study were paid for their participation. This likely served as a major motivating factor for why they participated in the study. This lends more credibility to the finding that, despite the fact that they were getting paid to be mentors, many of the mentors were also motivated in terms of the intrinsic satisfaction they might feel in helping someone out.

Future research should examine the differences between soliciting mentors who will not receive payment for taking part and comparing their intrinsic satisfaction scores with those who will receive payment, much like in the current study. It is possible that mentors who are not being paid to mentor will have significantly higher intrinsic satisfaction scores than in the current study. In addition, this may shed more light on how to structure mentoring relationships in organizations. For example, paying mentors a bonus for taking part in a structured mentoring program may result in poorer quality mentorships than if one were to ask for volunteers, thus ensuring that those who volunteer are much more likely to be motivated for intrinsic satisfaction reasons. The findings have several potential implications for the selection of mentors in formal mentoring programs. For example, an assessment of intrinsic motivation may be used as a screening device for potential mentors in formal mentoring programs. Selecting intrinsically motivated mentors may help ensure that a greater degree of mentoring is provided. In addition, selecting mentors based on their motives to mentor may be the key to ensuring a stronger relationship.

The data also suggest that mentor personality may be a consideration in the selection of mentors for formal mentoring programs. In the future, researchers should examine other personality traits that may lead to better understanding the personality profile of an ideal mentor or perhaps specific facets of the aforementioned personality traits in an effort to provide even stronger prediction (Schneider, Hough, & Dunnette, 1996). For example, mentors who are high on Openness to Experience and low on Neuroticism may also prove to be effective mentors.

Mentors who are high on Openness to Experience or its facets may be better equipped to provide their protégés with ideas for improving their careers. They may also be more open-minded with regard to exploring new ideas with their protégés. Openness to Experience is characterized by curiosity, imagination, creativity, and originality. It may be that mentors who are high on Openness to Experience will share a broader spectrum of experiences with their protégés than would those who are low on this trait. This is due to the fact that these individuals may be more proactive in regard to seeking out various career and life experiences and therefore gaining a unique knowledge set that others might not acquire. For example, these individuals may choose to engage in new and unique experiences en route to attaining goals, while their counterparts may choose more direct and less creative paths. By virtue of these unique learning experiences, such mentors are equipped to share knowledge with their protégés that others might not possess.

Likewise, mentors who are high on Neuroticism are less likely to be successful mentors since they may tend to be insecure and anxious in interacting with others.

Neuroticism measures emotional stability, with those individuals scoring high on this trait exhibiting anxiety, nervousness, and insecurity. Mentors who are high on Neuroticism may be less confident when interacting with their protégé, thus inhibiting the level of confidence that a protégé may have in their advice. They also may feel less comfortable with themselves and thus less comfortable engaging in social interactions with others. Therefore, protégés may not feel at ease when conversing with their mentor. Finally, less secure and worrisome mentors may place too great an emphasis on how the protégé perceives them than on how best to benefit the protégé. It may be that mentors who are high on Neuroticism may be less successful at providing psychosocial mentoring due to their tendency to be nervous and anxious in many of their interactions.

In the current study, having a mentor who provided career mentoring may have reduced school-related stress for a protégé. Considering the limited length of time and number of engagements that dyads took part in regarding the current study suggests that an even more profound reduction in stress could be experienced by protégés in a formal mentoring program of a more common length (e.g., 1 year). It is not unreasonable to assume that similar reductions in stress could be experienced by protégés in an organizational setting. Along similar lines, Sosik and Godshalk (2000) found that mentoring received was negatively related to protégé job-related stress, and Allen, McManus, and Russell (1999) reported that protégés who reported receiving a greater degree of mentoring were more likely to report that their mentors helped them cope with stress. Considering the demonstrated impact that stress can have on an individual's job performance (Jamal, 1990) and thus on the organization (Motowidlo, Packard, &

Manning, 1986), this finding may be of particular importance. Future researchers may find it valuable to continue to conduct research on whether or not having a mentor reduces work-related stress in an organizational setting.

Finally, this is one of the first studies to measure mentoring from multiple sources (i.e., mentor, protégé, independent raters). Previous research has traditionally relied on a single perspective (Higgins & Kram, 2001), however researchers have suggested that mentors' and protégés' perceptions cannot be generalized to one another and each require attention (Fagenson-Eland et al., 1997). In the current study, mentor and protégé perceptions of career mentoring were significantly related ($r = .23$, $p < .05$), while mentor and protégé perceptions of psychosocial mentoring were not ($r = .15$, ns). The modest correlations between mentor and protégé reports of mentoring are consistent with previous research. For example, Raabe and Beehr (2003) reported nonsignificant correlations between the two sources of .21 for psychosocial and .01 for career mentoring. Raabe and Beehr concluded that psychosocial mentoring might be the mentoring function in which there is the best chance for convergent reports. However, in the current study the correlation regarding career mentoring was larger than was the correlation regarding psychosocial mentoring. Thus, while the current study adds to the literature, it also reiterates the need for future research to clarify the relationship between mentor and protégé perceptions.

A closer examination of the intercorrelations among the three rating sources also highlights a number of interesting observations. Mentor reports of career development are significantly correlated with independent rater reports ($r = .29$, $p < .01$), while mentor

reports of psychosocial mentoring are not significantly related to independent rater reports ($r = .14$, ns). Similarly, protégé reports of career development are also significantly correlated with independent rater reports ($r = .34$, $p < .01$). In addition, protégé reports of psychosocial mentoring are significantly related to independent rater reports ($r = .35$, $p < .01$).

Although it is not uncommon for reports from different rating sources to exhibit modest correlations (Harris & Schaubroeck, 1988), given the fact that all three sources were rating the same behaviors within a highly structured situation over a short period of time, it is surprising that the correlations observed in the present study were not greater in magnitude. One problem was range restriction in the ratings provided by independent observers, which may have suppressed the correlations (Howell, 1992). For example, with regard to the ratings assigned to the sub dimensions of Exposure and Visibility and Sponsorship, the range was typically from 1 to 2 or from 1 to 3 on a possible 1 to 5 scale, regardless of the rater. Rater 2 also exhibited restriction of range (1 to 3) with regard to ratings provided for the sub dimension of Role Modeling, regardless of the session, when compared to the other raters.

It may be that the nature of the study inhibited the opportunity for this behavior to be exhibited by the mentors. Another possible explanation is that training was not as rigorous as desirable nor the competencies and behaviors as well-defined as they could have been. In retrospect, it would have been helpful to do a check of interrater reliability after raters had completed rating a portion of the tapes to ensure that the training had transferred.

Another potential reason for the differences between rating sources may be due to the fact that the independent raters were rating behaviors that may need further refinement and definition. This possibility is suggested by the low intraclass correlations.

The fact that this study viewed mentoring from different perspectives allowed us to identify that differences in perception (i.e., between mentor and independent observer) do exist. The independent observer perspective provides one additional source of reference documenting which mentoring functions may actually be occurring in a mentoring dyad. Future research should further examine mentoring from multiple perspectives (e.g., independent observers, coworkers, supervisors) in order to gain greater insight into why these differences may exist. This study takes an initial step by highlighting the existence of these differences. More theoretical work is also needed to delineate the reasons *why* these differences in reports occur.

Limitations

Although the current study has a number of strengths generally not found in the mentoring literature, such as data collected over multiple time periods and from multiple sources (i.e., mentors, protégés, independent raters), several limitations must be discussed. The current study was conducted within an academic setting over a short period of time. The first limitation involves the ability to generalize from a population of student "mentors" to an organizational setting. Formal mentoring programs typically allow mentors and protégés to meet more often over a longer period of time (e.g., 1 year). It may be that the limited amount of time allowed for interaction in the current study hindered the ability of mentor personality to play a stronger role than it did. The short

relationship duration also may not have allowed the mentor and protégé to get to know each other very well, or for the appropriate level of trust to build, enabling the protégé to confide in the mentor. Hence, it is uncertain the extent that these results can be generalized to organizational settings or to formal relationships of a longer duration. One way to improve upon this limitation would be to conduct a similar study using a more long-term design in order to allow the mentor and protégé to develop a stronger relationship.

Mentors and protégés in the current study were randomly assigned to one another. The ability to match mentors and protégés based on similar personality characteristics or academic majors might have allowed a stronger relationship to build within the short time frame that was allotted. Future research should examine the effects of matching based on personality and other interests in an organizational setting. The context of the formal program was highly structured in that participants met for a specified amount of time on a specified schedule. The participants were not allowed to interact outside of the specified meeting time until the program was finished, contrary to traditional mentoring relationships. It may be that mentoring relationships are effective partially due to scheduled as well as impromptu meetings that may occur between mentors and protégés. One improvement to the current study design is to allow the mentor and protégé to interact outside of the scheduled meeting times in order to better mimic naturally occurring mentorships. These impromptu or less formal meetings could be logged in a diary and their effects could be measured.

Another limitation is that the modest sample size may have inhibited our ability to detect significant relationships among the study variables. In addition, opportunities for career mentoring to occur in the current setting were restricted. For example, career mentoring in the current study consisted of coaching (e.g., mentor shared history of his/her academic career), exposure and visibility (e.g., mentor suggested ways to meet other students/faculty), and sponsorship (e.g., mentor offered to introduce protégé to people who could help his/her academic success). Given that the mentor and protégé were not allowed to interact outside of the scheduled meeting, the exposure and visibility and sponsorship dimensions were rarely observed.

Future research might examine the effects of personality and motivation within a formal peer mentoring or student advisor program that exists in an academic setting (e.g., college or university), with the difference being the amount of time they spend together and the amount of interaction they are allowed between meeting sessions. Many of these programs involve pairing advanced college students with incoming freshman and may extend over the course of a semester or academic year. This would allow the mentor and protégé to develop a stronger relationship since the length of time they would spend together would be much longer than 4 weeks (e.g., 16 week semester). Typically, student advisor programs allow the mentor and protégé to exchange contact information, thus allowing them to interact whenever they desire to. The current study only allowed the participants to spend 2 hours in total together, which may not be enough time to develop a strong relationship. This limited time period may also have limited the effect that personality and motivation could have on the mentoring relationship.

Conclusion

This study is one of the first to examine the effect that mentoring personality may have on motives for mentoring and the type of mentoring provided as defined by multiple sources. Very little research has attempted to explain why some mentors are more successful at mentoring than others, which may in part be due to characteristics on the part of the mentor. Future research should continue to examine the impact of mentor personality traits on the mentoring relationship, as well as the manner in which career and psychosocial mentoring are measured (e.g., independent raters rating videotaped behaviors). This study takes a meaningful step toward rectifying this apparent dearth in the literature.

Table 1

Demographic Frequencies for Mentors (N=91)

Demographic	Frequency	Percentage
Age		
18-20	20	22.0
21-23	58	63.8
24-26	8	8.7
27-29	5	5.5
Ethnicity		
Caucasian/White	71	78.0
African American	5	5.5
Hispanic	7	7.7
Other	7	7.7
Missing	1	1.1
Gender		
Male	25	27.5
Female	66	72.5
Class		
Junior	46	50.5
Senior	45	49.5
Major		
Psychology	54	59.3
Business	18	19.8
Liberal Studies	6	6.6
Criminal Justice	5	5.5
Communications	2	2.2
Engineering	2	2.2
Nursing	1	1.1
Statistics	1	1.1
Hospitality Management	1	1.1
History	1	1.1

Table 2

Demographic Frequencies for Protégés (N=91)

Demographic	Frequency	Percentage
Age		
18	45	49.5
19	45	49.5
21	1	1.0
Ethnicity		
Caucasian/White	59	64.8
African American	14	15.4
Hispanic	9	9.9
Other	6	6.6
Missing	3	3.3
Gender		
Male	26	28.6
Female	65	71.4
Major		
Education	15	16.5
Biological Sciences	14	15.4
Psychology	13	14.3
Undecided	10	11.0
Business	9	9.9
Criminal Justice	8	8.8
Nursing/Health Sciences	7	7.7
Information Technology	5	5.5
Communications	2	2.2
Legal Studies	2	2.2
English	2	2.2
Engineering	2	2.2
Theatre	1	1.1
Mathematics	1	1.0

Table 3

Intercorrelations Among Study Variables

		1	2	3	4	5	6	7	8
1.	Intrinsic Motivation	-							
2.	Learning Goal Orientation	.35**	-						
3.	Conscientiousness	.14	.27*	-					
4.	Extraversion	.24*	.20	.31**	-				
5.	Agreeableness	.00	.07	.28**	.44**	-			
6.	Machiavellianism	-.04	-.20	.13	-.20	-.32**	-		
7.	Self-enhancement Motive	.06	.13	.09	.01	.04	-.18	-	
8.	Intrinsic Satisfaction Motive	.25*	.28**	.35**	.32**	.25*	-.17	.35**	-
9.	Benefit Others Motive	.15	.10	.16	.21*	.21*	-.25*	.31**	.61**
10.	Mentor Career Development	.21*	.16	.16	.04	.04	-.20	.34**	.37**
11.	Mentor Psychosocial	.14	.15	.23*	.08	.09	-.06	.28**	.30**
12.	Protégé Career Development	-.15	-.04	.06	-.12	.02	-.13	-.10	.20
13.	Protégé Psychosocial	-.06	.04	.10	.02	.20	-.24*	-.07	.28**
14.	Raters Career Development	-.13	.07	-.01	.05	.02	-.14	.02	.19
15.	Raters Psychosocial	-.03	.05	-.10	.11	.16	-.22	-.01	.26*
16.	Protégé Satisfaction with Relationship	.04	.08	.06	.02	-.06	-.12	.06	.18
17.	Protégé Desire to Continue Relationship	-.14	.02	-.05	.05	-.01	-.09	-.00	.09
18.	Protégé T1 School Stress	.10	-.02	-.01	-.04	-.01	-.03	-.04	-.05
19.	Protégé T2 School Stress	-.05	-.29**	-.01	.02	.04	.11	-.02	-.15
20.	Protégé T1 Physical Stress	.18	-.00	.10	-.01	.01	.04	-.01	.11
21.	Protégé T2 Physical Stress	.05	-.05	.10	.13	.15	.13	.08	.09
22.	Protégé T1 School Self-Efficacy	.05	.17	.11	.12	.02	.18	-.10	.01
23.	Protégé T2 School Self-Efficacy	-.04	.16	.01	-.06	-.05	.05	-.07	.10

Note: Correlations based on two-tailed test and *N*=91 dyads.
* $p \leq .05$, ** $p < .01$

Table 3 (Continued)

Intercorrelations Among Study Variables

	9	10	11	12	13	14	15	16
1. Intrinsic Motivation								
2. Learning Goal Orientation								
3. Conscientiousness								
4. Extraversion								
5. Agreeableness								
6. Machiavellianism								
7. Self-enhancement Motive								
8. Intrinsic Satisfaction Motive								
9. Benefit Others Motive	-							
10. Mentor Career Development	.35**	-						
11. Mentor Psychosocial	.20	.59**	-					
12. Protégé Career Development	.10	.23*	.09	-				
13. Protégé Psychosocial	.20	.09	.15	.73**	-			
14. Raters Career Development	.08	.29**	.09	.34**	.21*	-		
15. Raters Psychosocial	.06	.03	.14	.22*	.35**	.64**	-	
16. Protégé Satisfaction with Relationship	.13	.21*	.27*	.48**	.63**	.21	.39**	-
17. Protégé Desire to Continue Relationship	.15	.10	.20	.46**	.57**	.16	.31**	.61**
18. Protégé T1 School Stress	-.03	.01	.11	.03	.04	-.09	-.11	.16
19. Protégé T2 School Stress	-.08	-.10	.04	-.15	-.05	-.33**	-.25*	-.07
20. Protégé T1 Physical Stress	.03	-.10	.10	.05	.10	-.12	.09	.13
21. Protégé T2 Physical Stress	.08	-.10	.10	-.02	.14	-.21	-.01	.08
22. Protégé T1 School Self-Efficacy	-.09	-.03	-.05	-.09	-.09	-.05	-.11	-.06
23. Protégé T2 School Self-Efficacy	-.08	-.02	.10	-.02	.05	.05	.05	.13

Note: Correlations based on two-tailed test and N=91 dyads.
* $p \leq .05$, ** $p < .01$

Table 3 (Continued)

Intercorrelations Among Study Variables

	17	18	19	20	21	22	23
1. Intrinsic Motivation							
2. Learning Goal Orientation							
3. Conscientiousness							
4. Extraversion							
5. Agreeableness							
6. Machiavellianism							
7. Self-enhancement Motive							
8. Intrinsic Satisfaction Motive							
9. Benefit Others Motive							
10. Mentor Career Development							
11. Mentor Psychosocial							
12. Protégé Career Development							
13. Protégé Psychosocial							
14. Raters Career Development							
15. Raters Psychosocial							
16. Protégé Satisfaction with Relationship							
17. Protégé Desire to Continue Relationship	-						
18. Protégé T1 School Stress	.06	-					
19. Protégé T2 School Stress	-.03	.69**	-				
20. Protégé T1 Physical Stress	-.03	.55**	.37**	-			
21. Protégé T2 Physical Stress	-.01	.46**	.52**	.72**	-		
22. Protégé T1 School Self-Efficacy	-.11	-.20	-.11	-.21*	-.07	-	
23. Protégé T2 School Self-Efficacy	.07	-.18	-.27**	-.11	-.14	.70**	-

Note: Correlations based on two-tailed test and *N*=91 dyads.
* $p \leq .05$, ** $p < .01$

Table 4

Descriptive Statistics for Study Variables

Study Variable	Mean	SD	Min	Max	Alpha
1. Intrinsic Motivation	3.79	0.34	2.40	4.13	0.73
2. Learning Goal Orientation	5.52	1.06	1.13	7.00	0.94
3. Conscientiousness	3.86	0.56	2.25	4.83	0.87
4. Extraversion	3.79	0.51	2.42	4.83	0.79
5. Agreeableness	3.86	0.51	2.58	4.83	0.78
6. Machiavellianism	6.54	2.49	0.00	12.00	0.42
7. Self-enhancement Motive	2.84	1.07	1.00	5.00	0.85
8. Intrinsic Satisfaction Motive	3.79	1.01	1.00	5.00	0.90
9. Benefit Others Motive	4.15	0.78	1.75	5.00	0.92
10. Mentor Career Development	3.32	0.67	1.67	4.78	0.81
11. Mentor Psychosocial	3.79	0.46	2.25	4.83	0.80
12. Protégé Career Development	3.23	0.89	1.22	4.89	0.89
13. Protégé Psychosocial	3.79	0.68	1.83	5.00	0.89
14. Raters Career Development	1.69	0.31	1.17	2.44	0.42
15. Raters Psychosocial	2.98	0.55	1.75	4.00	0.86
16. Protégé Satisfaction with Relationship	4.77	1.09	1.90	6.00	0.96
17. Protégé Desire to Continue Relationship	4.15	1.13	1.00	6.00	0.87
18. Protégé T1 School Stress	2.79	1.15	1.00	6.00	0.84
19. Protégé T2 School Stress	3.19	1.25	1.00	6.00	0.85
20. Protégé T1 Physical Stress	1.24	0.74	0.00	3.67	0.84
21. Protégé T2 Physical Stress	1.20	0.80	0.00	3.72	0.88
22. Protégé T1 School Self-Efficacy	4.69	0.80	2.33	6.00	0.90
23. Protégé T2 School Self-Efficacy	4.90	0.69	2.27	6.00	0.89

Table 5

Factor Loadings of Motive to Mentor Items with Oblimin Rotation (N=91)

Items	Factor 1 Benefit Others	Factor 2 Self Enhancement	Factor 3 Intrinsic Satisfaction
To ensure that knowledge and information is passed on to other students	.89	-.03	.06
To help other students succeed within my university	.87	-.10	.12
To contribute to research aimed at helping students	.80	-.03	.12
To make a difference in a freshman's academic career	.79	-.07	.27
*To benefit my university	.33	.17	.28
*Because I am being paid for participating in this mentoring program	-.17	-.11	.12
To enhance my reputation with others (e.g., faculty, other students)	-.05	.95	.03
To earn respect from others (e.g., faculty, other students) within your university	-.02	.92	-.05
To be recognized for my academic accomplishments	-.11	.63	.12
A desire to put this on my resume or curriculum vita	.06	.62	.02
The personal gratification that comes from helping another student grow and develop	.16	.07	.82
The personal pride that mentoring someone brings	.06	.17	.81
To gain a sense of self-satisfaction by passing on insights to other students	.25	.09	.65
*A desire to gain mentoring experience	.31	.33	.35
Eigenvalue	6.29	2.18	1.28
Variance	44.9%	15.5%	9.1%

*Items removed from final version.

Table 6

Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Protégé Psychosocial Mentoring	-.14	.14	-.07

Note: Beta weights are reported for each step of the equation. R^2 = .471*** for Step 1; Δ R^2 = .005 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 7

Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Protégé Career Development Mentoring	-.24	.11	-.17*

Note: Beta weights are reported for each step of the equation. R^2 = .471*** for Step 1; Δ R^2 = .030* for Step 2.
*p<.05, **p<.01, ***p<.001

Table 8

Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Mentor Career Development Mentoring	-.19	.14	-.10

Note: Beta weights are reported for each step of the equation. R^2 = .471*** for Step 1; Δ R^2 = .011 for Step 2.
*p<.05, **p<.01, ***p<.001

Table 9

Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Mentor Psychosocial Mentoring	-.01	.21	-.03

Note: Beta weights are reported for each step of the equation. R^2 = .471*** for Step 1; Δ R^2 = .001 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 10

Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Independent Raters Psychosocial Mentoring	-.41	.18	-.18*

Note: Beta weights are reported for each step of the equation. R^2 = .453*** for Step 1; Δ R^2 = .033* for Step 2.
*p<.05, **p<.01, ***p<.001

Table 11

Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé School Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Stress	.75	.08	.69***
Step 2			
Independent Raters Career Mentoring	-1.06	.29	-.27**

Note: Beta weights are reported for each step of the equation. R^2 = .453*** for Step 1; Δ R^2 = .072** for Step 2.
*p<.05, **p<.01, ***p<.001

Table 12

Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Protégé Psychosocial Mentoring	.01	.09	.90

Note: Beta weights are reported for each step of the equation. R^2 = .521*** for Step 1; Δ R^2 = .004 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 13

Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Protégé Career Development Mentoring	.01	.07	-.79

Note: Beta weights are reported for each step of the equation. R^2 = .521*** for Step 1; Δ R^2 = .003 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 14

Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Mentor Career Development Mentoring	.00	.09	-.03

Note: Beta weights are reported for each step of the equation. R^2 = .521*** for Step 1; Δ R^2 = .001 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 15

Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Mentor Psychosocial Mentoring	.00	.13	.03

Note: Beta weights are reported for each step of the equation. R^2 = .521*** for Step 1; Δ R^2 = .001 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 16

Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Independent Raters Psychosocial Mentoring	-.11	.11	-.08

Note: Beta weights are reported for each step of the equation. R^2 = .509*** for Step 1; Δ R^2 = .006 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 17

Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé Physical Symptoms of Stress (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 Physical Symptoms of Stress	.78	.08	.72***
Step 2			
Independent Raters Career Mentoring	-.31	.19	-.12

Note: Beta weights are reported for each step of the equation. R^2 = .509*** for Step 1; Δ R^2 = .015 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 18

Hierarchical Regression Analysis for Protégé Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Protégé Psychosocial Mentoring	.11	.08	.11

Note: Beta weights are reported for each step of the equation. R^2 = .486*** for Step 1; Δ R^2 = .012 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 19

Hierarchical Regression Analysis for Protégé Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Protégé Career Development Mentoring	.00	.06	.04

Note: Beta weights are reported for each step of the equation. R^2 = .486*** for Step 1; Δ R^2 = .002 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 20

Hierarchical Regression Analysis for Mentor Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Mentor Career Development Mentoring	-.00	.08	-.00

Note: Beta weights are reported for each step of the equation. R^2 = .486*** for Step 1; Δ R^2 = .000 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 21

Hierarchical Regression Analysis for Mentor Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Mentor Psychosocial Mentoring	.20	.11	.13

Note: Beta weights are reported for each step of the equation. R^2 = .486*** for Step 1; Δ R^2 = .018 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 22

Hierarchical Regression Analysis for Independent Rater Ratings of Psychosocial Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Independent Raters Psychosocial Mentoring	.10	.10	.08

Note: Beta weights are reported for each step of the equation. R^2 = .478*** for Step 1; Δ R^2 = .007 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 23

Hierarchical Regression Analysis for Independent Rater Ratings of Career Development Mentoring Predicting Change in Protégé School Self-Efficacy (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Time 1 School Self-Efficacy	.60	.07	.70***
Step 2			
Independent Raters Career Mentoring	.20	.17	.09

Note: Beta weights are reported for each step of the equation. R^2 = .478*** for Step 1; Δ R^2 = .008 (ns) for Step 2.
*p<.05, **p<.01, ***p<.001

Table 24

Exploratory Regression Analysis for Independent Variables Predicting Mentor Ratings of Career Development (N=91)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	.26	.21	.13
Learning Goal Orientation	.00	.07	.05
Conscientiousness	.01	.12	.07
Self-enhancement Motive	.15	.06	.24*
Benefit Others Motive	.21	.09	.24*

Note: R^2 = .210*** for Step 1.
*p<.05, **p<.01, ***p<.001

Table 25

Exploratory Regression Analysis for Independent Variables Predicting Protégé Ratings of Career Development (N=91)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	-.46	.30	-.17
Learning Goal Orientation	.00	.10	.00
Conscientiousness	.12	.18	.08
Self-enhancement Motive	-.12	.09	-.15
Benefit Others Motive	.18	.13	.16

Note: R^2 = .062 (ns) for Step 1.
*p<.05, **p<.01, ***p<.001

Table 26

Exploratory Regression Analysis for Independent Variables Predicting Independent Rater Ratings of Career Development (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	-.19	.11	-.21
Learning Goal Orientation	.00	.04	.17
Conscientiousness	-.00	.06	-.06
Self-enhancement Motive	-.01	.03	-.00
Benefit Others Motive	.00	.05	.09

Note: R^2 = .047 (ns) for Step 1.
*p<.05, **p<.01, ***p<.001

Table 27

Exploratory Regression Analysis for Independent Variables Predicting Mentor Ratings of Psychosocial Mentoring (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	.01	.15	.05
Agreeableness	.01	.11	.06
Extraversion	.00	.12	.00
High Machiavellianism	.01	.02	.03
Intrinsic Satisfaction Motive	.12	.06	.26
Benefit Others Motive	.00	.08	.02

Note: R^2 = .091 (ns) for Step 1.
*p<.05, **p<.01, ***p<.001

Table 28

Exploratory Regression Analysis for Independent Variables Predicting Protégé Ratings of Psychosocial Mentoring (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	-.23	.22	-.11
Agreeableness	.19	.16	.14
Extraversion	-.15	.17	-.11
High Machiavellianism	.00	.03	-.15
Intrinsic Satisfaction Motive	.16	.09	.24
Benefit Others Motive	.00	.11	.04

Note: R^2 = .143* for Step 1.
*p<.05, **p<.01, ***p<.001

Table 29

Exploratory Regression Analysis for Independent Variables Predicting Independent Rater Ratings of Psychosocial Mentoring (N=89)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	-.17	.18	-.11
Agreeableness	.01	.13	.07
Extraversion	.01	.14	.08
High Machiavellianism	.00	.03	-.16
Intrinsic Satisfaction Motive	.11	.07	.21
Benefit Others Motive	.01	.09	-.97

Note: R^2 = .098 (ns) for Step 1.
*p<.05, **p<.01, ***p<.001

Table 30

Exploratory Regression Analysis for Independent Variables Predicting Intrinsic Satisfaction Motive to Mentor (N=91)

Variable	*B*	*SE B*	*β*
Step 1			
Intrinsic Motivation	.52	.32	.17
Learning Goal Orientation	.21	.10	.22*

Note: R^2 = .105** for Step 1.
*p<.05, **p<.01, ***p<.001

Table 31

Exploratory Regression Analysis for Independent Variables Predicting Benefit Others Motive to Mentor (N=90)

Variable	*B*	*SE B*	*β*
Step 1			
Conscientiousness	.23	.16	.16
Extraversion	.22	.18	.14
Agreeableness	.13	.19	.08
High Machiavellianism	-.00	.04	-.14

Note: R^2 = .106* for Step 1.
*p<.05, **p<.01, ***p<.001

Table 32

Support for Hypothesis Tests

Hypothesis	Variables	Supported (Yes, No, or Partial)?	Supported by:		
			Mentor Self-Report	Protégé Self-Report	Independent Raters
1	Intrinsic Motivation & Career Mentoring	**Partial**	**Yes**	No	No
2	Intrinsic Motivation & Psychosocial Mentoring	No	No	No	No
3	Intrinsic Motivation & Intrinsic Satisfaction Motive	**Yes**	N/A	N/A	N/A
4	Learning Goal Orientation & Career Mentoring	No	No	No	No
5	Learning Goal Orientation & Intrinsic Satisfaction Motive	**Yes**	N/A	N/A	N/A
6	Conscientiousness & Career Mentoring	No	No	No	No
7	Conscientiousness & Benefit Others Motive	No	No	No	No
8	Agreeableness & Psychosocial Mentoring	No	No	No	No
9	Agreeableness and Benefit Others Motive	**Yes**	N/A	N/A	N/A
10	Extraversion & Psychosocial Mentoring	No	No	No	No
11	Extraversion & Benefit Others Motive	**Yes**	N/A	N/A	N/A
12	Machiavellianism & Psychosocial Mentoring	**Partial**	No	**Yes**	No
13	Machiavellianism & Self-enhancement Motive	No	N/A	N/A	N/A
14	Machiavellianism & Benefit Others Motive	**Yes**	N/A	N/A	N/A
15	Self-enhancement Motive & Career Mentoring	**Partial**	**Yes**	No	No
16	Intrinsic Satisfaction Motive & Psychosocial Mentoring	**Yes**	**Yes**	**Yes**	**Yes**
17	Benefit Others Motive & Career and Psychosocial Mentoring	**Partial**	**Partial**	No	No

Note: Relationships assessed using only mentor data have N/A in the supported by boxes.

Table 32 (continued)

Hypothesis	Variables	Supported (Yes or No)?	Supported by:		
			Mentor Self-Report	Protégé Self-Report	Independent Raters
18a.	Career & Psychosocial Mentoring & Protégé Satisfaction with the Mentoring Relationship	**Yes**	**Yes**	**Yes**	**Yes**
18b.	Career & Psychosocial Mentoring & Protégé Desire to Continue the Mentoring Relationship	**Partial**	No	**Yes**	**Partial**
18c.	Career & Psychosocial Mentoring & Protégé School Stress	**Partial**	No	No	**Yes**
18d.	Career & Psychosocial Mentoring & Protégé Physical Symptoms of Stress	No	No	No	No
18e.	Career & Psychosocial Mentoring & Protégé School Self-Efficacy	No	No	No	No

Note: Note: Relationships assessed using only mentor data have N/A in the supported by boxes.

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Appendix A: Recruitment Scripts for Mentors and Protégés

Outline for Mentor Recruitment

- Introduce everyone
- Introduce mentoring project
    - We are conducting a mentoring program sponsored by the Office of Naval Research.
    - As we all know, the first year of college can be a very stressful time for freshmen and we hope that projects like this mentoring program will help freshmen to cope with the challenges of their first year. Our two main goals in this pilot program are to determine:

        - If mentoring will benefit the incoming freshmen.
        - If 30 minutes a week is enough time to give the incoming freshmen any benefit or do we need to make the sessions longer. This is why we ask you not to interact with your protégé outside the mentoring sessions until the program is over.

    - We are pairing Juniors or Seniors with Freshmen to participate in a mentoring relationship. Each mentor, who will be either a junior or a senior, will be paired with one protégé, who will be a Freshman, and will meet with their protégé for a half hour every week for four weeks
    - I am looking for students who would like to be mentors for any of the following reasons:
        - Because you enjoy helping others
        - So you can put it on your resume
        - Because it gives you a chance to meet new people
        - Because you can make a difference in a freshman's academic career
        - Because you want to be recognized for your academic accomplishments
        - Because it allows you to gain valuable mentoring experience
        - Because you will get paid
    - Pay is $8 an hour. You must be available for 5 consecutive weeks at the same time each week for a period of one hour, however you will only spend 30 minutes with your mentor/protégé!

- Rules
    - I am looking for 100 mentors
    - Selection will be based on availability of schedule
    - Mentors must have at least a 2.0 GPA to be considered for selection
    - You must bring a printout of your academic transcript to the orientation session

- Mentors will be expected to attend 1 orientation session and 4 mentoring sessions with their protégé. Each session will last approximately one hour, however, you will only spend half an hour with your protégé.
- The 4 sessions with your protégé will be at the same time every week for four consecutive weeks
- You must make up a missed session the same week that you missed in order to continue with the study

- Close
  - Sign up sheets will be passed out to anyone interested in participating
  - On the sign up sheet we need some contact information about you
  - We also need you to circle <u>all the 1 hour blocks</u> you are available to mentor, but you will only be expected to attend for a <u>half hour</u> during that block for the first four sessions.
  - Finally, circle <u>the orientation sessions</u> that you might be able to attend the week of February 24 – 28. Orientation should only take about one hour and you will get paid for that time as well.
  - We are located on campus near the Writing Center in the portables
  - We try to work around your schedule however scheduling is based upon your level of availability so if you want to be considered, try to circle as many time blocks as you can
  - If you are selected to participate, you will receive a call from one of us to schedule your orientation and your regular mentoring time before next week

- Say Thank You

Outline for Protégé Recruitment

- Introduce yourself
- Introduce mentoring project
    - We are conducting a mentoring program sponsored by the Office of Naval Research.
    - As we all know, the first year of college can be a very stressful time for freshmen and we hope that projects like this mentoring program will help freshmen to cope with the challenges of their first year. Our two main goals in this pilot program are to determine:

        - If mentoring will benefit the incoming freshmen.
        - If 30 minutes a week is enough time to give the incoming freshmen any benefit or do we need to make the sessions longer. This is why we ask you not to interact with your protégé outside the mentoring sessions until the program is over.

    - We are pairing Juniors or Seniors with Freshmen to participate in a mentoring relationship. Each mentor, who will be either a junior or senior, will be paired with one protégé, who will be a Freshmen, and will meet with them for a half hour every week for four weeks
    - I am looking for students who would like to be protégés for any of the following reasons:
        - To improve your school-related skills
        - To learn about what is necessary to succeed at UCF
        - To build your confidence
        - To reduce your school-related stress
        - To meet new people
        - To experience what it is like to be mentored
        - Because you will get paid
    - Pay is $8 an hour. You must be available for 5 consecutive weeks at the same time each week for a period of 1 hour.
    - This is a good opportunity for you to make some money and receive advice from a senior on his or her academic experience here at UCF.

- Rules
    - I am looking for 100 protégés
    - You must be a first or second-semester freshman to be considered for participation
    - Selection will be based on availability of schedule
    - You must bring a printout of your academic transcript to the orientation session.

- You will be expected to attend 1 orientation session and 4 mentoring sessions with your mentor. Each session will last approximately 1 hour, however, you will only spend half an hour with your mentor.
- The 4 sessions with your mentor will be at the same time every week for four consecutive weeks.
- You must make up a missed session the same week that you missed in order to continue with the study.

- Close
  - Sign up sheets will be passed out to anyone interested in participating
  - On the sign up sheet we need some contact information about you.
  - We also need you to circle all the 1 hour blocks you are available to be mentored but will only be expected to attend for a half hour during that block.
  - We are located on campus near the Writing Center in the portables
  - We try to work around your schedule however scheduling is based upon your level of availability so if you want to be considered, try to circle as many time blocks as you can
  - Finally, circle the orientation sessions that you might be able to attend the week of March 3 – 7. Orientation should only take about one hour and you will get paid for that time as well.
  - If you are selected to participate, you will receive a call from one of us to schedule your orientation and your regular mentoring time.

- Say Thank You

Appendix B: Mentor Handbook

MENTOR HANDBOOK

TABLE OF CONTENTS

1. Introduction..…….. 3

2. Responsibilities…….. 4

3. Payment..……...……. 5

4. Possible Topics of Discussion with Protégé……..…… 6

5. Current UCF Facts……...…….……. 7

6. Rules and Regulations of UCF……..…… 8

7. Code of Conduct……...…….…… 9

8. Frequently Asked Questions…….….……..……. 15

9. Top Ten Strategies for Effective Stress Management……... 18

10. Top Ten Strategies for Improving Time Management…….. 19

11. Top Ten Test-Taking Strategies……. 20

12. Additional Sources of Information…… 22

INTRODUCTION

Thank you for agreeing to participate as a mentor in our pilot mentoring program. As we all know, the first year of college can be a very stressful time for freshmen and we hope that projects like this mentoring program will help freshmen to cope with the challenges of their first year. Our two main goals in this pilot program are to determine:

- If mentoring will benefit the incoming freshmen.

- If 30 minutes a week is enough time to give the incoming freshmen any benefit or do we need to make the sessions longer. This is why we ask you not to interact with your protégé outside the mentoring sessions until the program is over.

BACKGROUND

Mentoring is defined as a relationship in which one person, the mentor, helps another person, the protégé, to reach his or her goals. Since these goals may vary among people, the form of mentoring may vary, as well. Historically, we tend to think of mentoring as an informal relationship in which someone in authority takes a junior person under his or her wing. Informal mentors are not managed, structured, or formally recognized by any type of organization. Traditionally, they are spontaneous relationships that occur without any external involvement. In contrast, formal mentorship programs are managed and sanctioned by an organization.

Formal mentoring relationships have been shown to provide protégés with two major types of support: career and psychosocial. Career support is any activity in which the mentor helps the protégé move towards the accomplishment of an academic/career goal. For example, a mentor could assist his or her protégé by providing constructive feedback, opportunities for improvement, or help in refining various skills (e.g., study habits). Psychosocial Support is any activity in which the mentor helps increase the protégé's feelings of competence and treats them in a respectful manner. For example, the mentor could serve as a role model or a person with whom the protégé feels comfortable discussing various issues.

RESPONSIBILITIES

- Attend orientation session and all assigned meetings with your protégé.
- Utilize your handbook and the resources in it to answer various questions that your protégé might have.
- Be flexible and patient with the scheduling.
- Do not use your last name when speaking with your protégé.
- Do not ask your protégé for their last name.
- Do not contact your protégé until the program has ended.
- You must make-up any missed session the same week that it was originally scheduled.

PAYMENT

- You will be paid one time at the end of the program.
- It may take 4 - 6 weeks for your check to arrive after the program has ended and you have filled out the appropriate paperwork.
- We will need a current address to send your check to.

POSSIBLE TOPICS TO DISCUSS WITH YOUR PROTÉGÉ

Mentoring relationships have been shown to provide protégés with two major types of support: Career and Psychosocial. Thus, topics that you might want to address with your protégé include, but are NOT limited to:

- Campus Life
- Student Organizations
- School Policy
- Career Development
- Personal Issues
- Health and Well-being
- Stress Management
- Fitness/Sports
- Conflicts with Roommates
- Time Management
- Class Scheduling/Advising
- Course Work
- Study Habits

CURRENT UCF FACTS

• Established	1956
• Fall 2002 Enrollment	39,170
Out-of-State Students	6.17%
• H.S. GPA Average	3.6
Average SAT Total	1056
• Tuition & Fees (per credit hour)	Resident
$88.01	
	Non-Resident
	$181.00
• Single Dorm Room (per semester)	$1,950 to $2,450
Double Dorm Room (per semester)	$1,750 to $2,025
• Population Orlando	184,639
• UCF Employees	3,892
Student/Faculty Ratio	18.7:1
• Meal Plans Fee (per semester)	$567.10 to $1,444.48
• Total Operating Budget (2001-2002)	$536,845,189

- 76 Baccalaureate Programs
  56 Master's Programs
  3 Specialist Programs
  18 Doctoral Programs

- Academic Support and Advising Programs Available

UCF RULES AND REGULATIONS

1. UCF is a Drug-Free Campus
   - You must be 21 or older to consume alcohol.
   - The possession of alcoholic beverages in open or unsealed containers is prohibited, except in designated areas or at approved special events.

2. UCF is a Smoke-Free Campus
   - You cannot purchase cigarettes anywhere on campus, but you are allowed to smoke outside of the buildings.

3. Student Grade Appeals
   - Grades can be appealed under the following alleged conditions:
     - Deviation from established and announced grading policy.
     - Errors in application of grading procedures.
     - Lowering of grades for non-academic reasons.
   - More information on student grade appeals can be found in the Golden Rule book or online at **http://www.ucf.edu/goldenrule/conduct.html** .

4. Academic Dishonesty/Cheating
   - Cheating includes unauthorized assistance, plagiarism, or helping another student violate academic behavior standards.
   - More information can be found in the Golden Rule book or online at **http://www.ucf.edu/goldenrule/conduct.html .**

5. The Golden Rule Book
   - Covers issues including: Misconduct at University Sponsored Activities, Possession of a Firearm, Misuse of Computing Resources, Gambling, and Commission of a Felony or a Misdemeanor.
   - You can pick up a copy of the Golden Rule book at the Admissions office or you can find it online at **http://www.ucf.edu/goldenrule/conduct.html .**

6. UCF has an academic policy of maintaining a 2.0 or higher GPA

   - If your GPA is below a 2.0, you will be put on academic probation for one semester.
   - If you don't bring your GPA up after you have been put on academic probation, then you will have to meet with a committee and they will discuss your case.

UCF RULES OF CONDUCT

These conduct rules shall apply to all undergraduate students, graduate students, and student organizations of the university and its area campuses and shall be deemed a part of the terms and conditions of admission and enrollment of all students.

Failure to comply with duly established laws or university regulations may subject violator(s) to appropriate civil authorities. Serious violations of university regulations shall be recorded in the record of the individual(s) and/or the organization.

Generally, authority necessary to enforce regulations is vested in the vice president for Student Development and Enrollment Services or designee. Selected functions of this authority are shared with faculty, staff and students. Some functions of student judicial affairs administration are assisted through review boards or councils.

Students and student organizations are also subject to university judicial sanctions for the violation of a Board of Regents or university rule or a federal, state, county, or city law, which has an adverse impact on the university.

The following defined and described actions include, but are not limited to, conduct for which judicial action may be taken. These rules apply to all students for intentional conduct that occurs against other students or non-students on university premises, while participating in university sponsored or related activities, during school sessions, during holidays, and during periods of continuous enrollment, or off-campus when that conduct is determined to adversely affect the interest(s) of any part of the university. A student is continuously enrolled, once admitted, unless the student fails to register in two consecutive terms, excluding summer terms, and must re-apply for university admission.

CODE OF CONDUCT

1. **Academic Dishonesty/Cheating**

A. Cheating is a violation of student academic behavior standards. The common forms of cheating include:

1. Unauthorized assistance: communication to another through written, visual, or oral means. The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment or project. The unauthorized possession or use of examination or course related material may also constitute cheating.
2. Plagiarism: whereby another's work is deliberately used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another is plagiarizing.

B. Any student who knowingly helps another violate academic behavior standards is also in violation of the standards.

2. **Providing False and Misleading Information and/or Falsification of University Records.**

A. Withholding related information, or furnishing false or misleading information (oral or written) to university officials, faculty or staff, including use or attempted use of a fraudulent identification card or driver's license.

B. Forgery, alteration or misuse of any university document, material, file, record or instrument of identification.

C. Deliberately and purposefully providing false or misleading verbal or written information about another person that results in damage to that person's reputation.

3**. Disruptive Conduct**

A. An act which intentionally impairs, interferes with, or obstructs the orderly conduct, processes, and functions of the university or any part thereof.

B. Violence which deliberately impedes or interferes with the normal flow of pedestrian and vehicular traffic.

C. An act which deliberately impedes or interferes with the normal flow of pedestrian and vehicular traffic.

D. An act which tampers with the election(s) of any university student organization or group.

E. Willful destruction of university property or property of members or guests of the university.

F. Misuse of any university safety equipment, firefighting equipment, or fire alarm.

G. An act which deliberately interferes with the academic freedom or the freedom of speech of any member or guest of the university community.

H. A false report of an explosive or incendiary device, which constitutes a threat or bomb, scare.

I. Conduct which is lewd or indecent.

J. Breach of peace: an act, which aids, abets, or procures another person to breach the peace on the university premises or at university sponsored/related functions.

K. Failure to comply with oral or written instruction from duly authorized university officials or law enforcement officers acting in the performance of their duties, including failure to identify oneself to these persons when requested to do so.

4. **Personal Abuse**

A. Verbal abuse of any person including lewd, indecent, or obscene expressions of conduct.

B. Physical abuse or threat of physical abuse to any person.

C. Harassment: defined as behavior directed at a member of the university community which would cause severe emotional distress, intimidation, or coercion to a reasonable person in the victim's position, or would place a reasonable person in the victim's position in fear of bodily injury or death. This definition, however, shall not be interpreted to abridge the right of any member of the university community to freedom of expression protected by the 1st amendment of the United States Constitution and any other applicable law.

D. Failure to respect the privacy of other individuals.

E. Retaliation against or harassment of complainant(s) or other person(s) alleging misconduct.

5. **Sexual Misconduct**

A. Sexual Assault: acquaintance rape (date, friend, someone the victim knows casually or through mutual friends) or any other form of rape. Rape is defined as unconsenting sexual penetration, coercion, or penetration against the victim's will. Any sexual conduct which occurs between members of the university community on or off the UCF campus shall be consensual, meaning that willing and verbal agreement shall be clearly given in advance by all persons involved at each new level of such conduct. A person shall not knowingly take advantage of another person who is under 18 years of age, mentally defective, under the influence of prescribed medication, alcohol or other chemical drugs, or who is not conscious or awake, and thus is not able to give consent as defined above. Further, a person shall not physically or verbally coerce another person to engage in any form of sexual conduct, to the end that consent as defined above is not given.

B. Sexual Harassment: unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature which prevents or impairs another person's full enjoyment of the educational benefits, atmosphere, or opportunities provided as part of the university.

C. Public Indecency: exposure of one's body in such a manner that another party reasonably could be offended or to display sexual behavior which another person reasonably finds offensive.

D. Voyeurism: sexual stimulation sought through trespass, spy, or eavesdrop activities.

6. Larceny/Property Damage

A. Unauthorized use, possession, or services or theft of property. Such property may be personal or public.

B. Damage or defacing of university property or the property of another person whether or not it is on university premises.

7. Hazing

A. Any action or situation which recklessly or intentionally

endangers the mental or physical health and/or safety of a student for the purpose of initiation or admission into, or affiliation with, any organization operating under registration with the university.

B. Brutality of a physical nature such as whipping, beating, branding, forced calisthenics, exposure to the elements; forced consumption of any food, liquor, drug, or other substances; or other forced elements; or other forced activity which could adversely affect the physical health or safety of the individual.

C. Any activity which could subject the individual to mental stress such as sleep deprivation, forced exclusion from social contact, forced contact which could result in embarrassment, or any other activity which could adversely affect the mental health or dignity of the individual.

8. Unauthorized Use of Keys, and/or Entry

A. Unauthorized possession, duplication or use of keys to any university premises.

B. Unauthorized entry or attempted entry to university premises.

9. Misconduct at University Sponsored/Related Activities

Violation of university rules, or regulations of a host institution sponsored/related activity.

10. Unlawful Possession Use or Sale of any Controlled Substance

Use, possession, sale, distribution or attempt to obtain any narcotic or other controlled substances, except as expressly permitted by law.

11. Alcoholic Beverages Violation

The use, possession, sale and/or distribution of alcoholic beverages except as expressly permitted by the law and university rules, and
behavior under influence of alcoholic beverages, are prohibited.

12. Possession and/or Use of a Firearm and/or Dangerous Material

A. Possession or use of firearms or any weapon on university premises or at university sponsored/related activities.

B. Possession or use of fireworks of any description, explosives, or chemicals which are disruptive, explosive, or corrosive on university premises or at university sponsored/related activities.

13. Instigation or Participation in Group Disturbances During Demonstrations, Parades, or Picketings

A. Participation in a demonstration(s), parade(s), or picketing which invades the rights of others, interferes with the educational function of the university or jeopardizes public order and safety.

B. Leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.

14.Misuse of Computing and Telecommunications Resources.

The university supports open access to electronic communication and information. Nevertheless, the preservation of an open computing and communications environment requires adherence by users to applicable law and university's rules regarding the responsible use of computing systems, software and telecommunication networks.

15. Gambling

A. To play in an unlawful game of chance for money or for anything of value on university premises or at any affair sponsored by a student organization.

B. To unlawfully sell, barter or dispose of a ticket, order, or any interest in a scheme of chance by whatever name on university premises or at any affair sponsored by a student organization.

C. To wage on a university team or organization in a competition, with a direct interest in the success of the competition.

16. University Designated Student Residence Violations

Repeated or flagrant violations of regulations governing university student residences.

17.University Wordmark

Unauthorized use of the official university wordmark, Pegasus, monogram, seal, or other graphic identity symbol.

18.Commission of a Felony or a Misdemeanor

Commission of an act, which is a felony or misdemeanor as provided in local, state, or federal law.

FREQUENTLY ASKED QUESTIONS

1. ***Where can I go if I need help deciding what I want to major in?***
   - The Counseling & Testing Center is located in the Student Resource Center, Room 203, (407) 823-2811.
     - You can call to make an appointment with a counselor who can provide you with career counseling and standardized testing.
     - The service is free and the counselors are qualified professionals.

2. ***Where do I go if I live on campus and I don't get along with my roommate?***
   - Your Resident Advisor is qualified to help you with conflict resolution issues, and if the situation doesn't get resolved they can assist you in looking for a new living arrangement.

3. ***How can I get involved on Campus?***
   - There are many different organizations on-campus that you can become active in. Some numbers you may find useful are: Greek life (407) 823-2072, Student Government (407) 823-2191, Campus Activity Board (407) 823-6471.

4. ***Where can I go on campus to talk to someone about a personal issue that I am struggling with?***
   - The Counseling & Testing Center is located in the Student Resource Center, Room 203, (407) 823-2811.
     - You can call to set up an appointment with a qualified psychologist who can assist you with whatever issues you may have.
     - The service is free and confidential.

5. ***If I live on Campus, should I get a meal plan?***
   - UCF Dining Services offers a number of diverse packages for information call (407) 823-2651.
   - You can put money on your campus ID card, which works like an ATM card, and use it to make purchases at the Student Union or other on-campus establishments.

6. ***How can I check my grades, register for classes, add or drop classes, or look at my transcript?***
   - Polaris is an online system that lets you register and look at your personal information **https://connect.ucf.edu/heprod/signon.asp**

7. ***Where can I go if I need to use a computer?***

- There are computer labs on campus that provide free Internet access and other programs for students. For computer lab schedules, please go to **http://pegasus.cc.ucf.edu/~enrsvc/schedweb/labs.html.**

8. Where is a good place to study on campus?

- The Library – for more information, please go to **http://library.ucf.edu**.
- The Student Union provides certain tables and couches where students may study.
- Curriculum Material Center in the Education Building also provides an area to study.

9. What is in the Student Union?

- Food Court contains Wendy's, Sbarros, Sweet Retreat, Subway, Baja Burrito Kitchen, Pretzel Time, Steak Escape, and other services.
- Convenience store, CD store, STA Travel, and an optical store.
- If you have any questions about events that are happening in the Union or you want to rent a room (free for student organizations), you can go to the information desk located on the first floor or you can call (407) 823-0001.

10. Where can I go on campus if I get sick, need medical advice, or just need to pick up some medicine?

- The Student Health Center provides diagnosis and treatment of most illnesses and injuries. The co-pay is included in your tuition, however you do have to pay for any lab work or medicine that you need. To make an appointment or for general medical questions call (407) 823-2701.
- A pharmacy is located in the Student Health Center where you can pick up prescriptions or over the counter medicine.
- The Campus Wellness Center, which is located on campus in trailer 617, next to the CREOL building, provides a variety of different health services to UCF students. Some of these services include: Stress Management, a Registered Dietitian, CHAMP Test, Fitness Consultants, Anonymous HIV testing, Free condoms, AA meetings, and Heath Awareness Events. The number is (407) 823-5841.

11. Where can I go on campus to exercise?

- The Fitness center is currently located by the Student Resource Center. It gives UCF Students access to free weights, cardiovascular equipment, and a variety of aerobic classes. You can go online to find out more information **http://rec.ucf.edu** or you can call (407) 823-3090.

12. Where can I go if I need help with schoolwork?

- The Student Academic Resource Center is located on the 1st floor of Phillips Hall. Some of the services offered include free academic advising, tutoring, a college achievement program, and a CLAST review. You can walk in or call to make an appointment at
  (407) 823-5130.
- The University Writing Center provides free writing support for students. It is located in TR MOD 608, behind the Classroom Building. You can make an appointment online at **http://reach.ucf.edu/~uwc** or by phone (407) 823-2197.

13. How safe is our campus and what can I do if I need help with a safety issue?

- Public Safety and the UCF Police web site is **http://www.police.ucf.edu** or you can call (407) 823-5555.
- Safety Escort Service (SES) operates during the hours of 6:30 p.m. to 12:30 a.m. You can call them from anywhere on campus and they will take you where you need to go on campus (407) 823-2424.

14. Where can I go if I have questions about Financial Aid?

- The Office of Student Financial Assistance is located on the first floor of the administration building. The web site is **http://pegasus.cc.ucf.edu/~finaid** or you can call them at
  (407) 823-2827 to get information about scholarships, loans, or grants.

15. Where can I go if I am looking for a job?

- The Career Resource Center offers resume counseling, help with interviews, a career service manual, information about career expositions, and part-time job fairs. To contact them you can go online at **www.crc.ucf.edu** or you can call (407) 823-2361.

16. Where can I get information about football games?

- You can go online at **www.sports.ucf.edu/football/QuickFacts.htm**.

TOP TEN STRATEGIES FOR EFFECTIVE STRESS MANAGEMENT

1. **Organize yourself.**
   Take better control of the way you're spending your time and energy.

2. **Control your environment by controlling who and what is surrounding you.**
   In this way, you can either get rid of stress or get support for yourself.

3. **Love yourself by giving yourself positive feedback.**

4. **Reward yourself by planning leisure activities into your life.**

5. **Exercise your body since your health and productivity depend upon your body's ability to bring oxygen and food to its cells.**
   Exercise your heart and lungs regularly, a minimum of three days peer week for 15-30 minutes. This includes such activities as walking, jogging, cycling, swimming, aerobics, etc.

6. **Relax yourself by taking you mind off your stress and concentrating on breathing and positive thoughts.**
   Dreaming counts, along with meditation, progressive relaxation, exercise, listening to relaxing music, communicating with friends and loved ones, etc.

7. **Rest yourself as regularly as possible.**
   Sleep 7-8 hours a night. Take study breaks. There is only so much your mind can absorb at one time. It needs time to process and integrate information. A general rule of thumb: take a ten-minute break every hour.

8. **Be aware of yourself.**
   Be aware of distress signals such as insomnia, headaches, anxiety, upset stomach, lack of concentration, colds/flu, excessive tiredness, etc.

9. **Feed yourself / Do not poison your body.**
   Eat a balanced diet. Avoid high calorie foods that are high in sugar and fats. Don't depend on drugs or alcohol. Caffeine will keep you awake, but it also makes it harder for some to concentrate.

10. **Enjoy yourself!**
    It has been shown that happier people tend to live longer, have less physical problems, and are more productive.

TOP TEN STRATEGIES FOR IMPROVING TIME MANAGEMENT

1. **Use an appointment calendar to keep track of all due dates, meetings and scheduled activities.**

2. **Make and use "to do" lists everyday.**

3. **Set priorities. Categorize "to do" list tasks into high, medium, and low priorities and focus on high priorities first.**

4. **Divide large tasks into several smaller tasks. Focus on a small task to complete one part at a time. This will make a big project feel more manageable.**

5. **Regularly ask yourself "What is the best use of my time right now?" Do that task.**

6. **Anticipate deadlines and foreseeable high stress periods (midterms, finals week, deadlines for papers) and plan for extra study hours.**

7. **Schedule time for breaks. It can be hard to stay focused when you're tired or hungry. Get up and stretch or have a snack. Keep breaks to 10-15 minutes.**

8. **Make time to take care of yourself. Proper sleep, exercise and nutrition help you stay physically fit and mentally alert.**

9. **Learn to say "No." Commit yourself to only those activities you have time for.**

10. **Learn to say "Later." Postpone phone calls, visits from friends, and other interruptions or distractions for breaks or after studying.**

TOP TEN TEST-TAKING STRATEGIES

PREPARING FOR THE TEST

1. **Find out what material the exam will cover, the format of the test (i.e., multiple choice, essay) and prioritize the material you need to review.**

2. **Use as many study strategies as possible: note cards, outlines, diagrams and pictures, talking with friends about materials, and self-testing.**

3. **Make sure you understand the material before you memorize it.**

4. **If you have to cram, accept that you can't learn everything. Start by reviewing key concepts and sections you already understand well. If time, think about examples.**

5. **Tips for different kinds of exams:**

   a) For essay exams – predict the types of questions you might be asked and develop outlines for your answers.

   b) For problem solving exams – review all homework and solve extra problem sets in your textbook.

   c) For open book exams – prepare as if it were a closed book exam and use post-it notes for tabs in your text so you can easily access material.

   d) For take home exams - make sure you schedule enough time to complete the exam; gather all of your resources together so you don't waste time trying to find material.

TAKING THE TEST

6. **Listen for any oral instructions, read written directions carefully, and underline key words in the instructions.**

7. **Survey the entire test to get a feel for its order and content. Note the point values for the various sections and allocate time to spend on each section appropriately.**

8. **Utilize important information and insights you acquired in working through the entire test to go back and answer earlier items where you were uncertain.**

9. **When reviewing your answers, if you were fairly certain you were correct the first time, leave the answer as it is.**

10. **Tips for different kinds of exam questions:**

    a) <u>For problem solving questions</u> – make sure you show all your work so you can get partial credit; write down equations you will need and then plug in the given data and solve for the remaining variable.

    b) <u>For true-false questions</u> – read the question and see if it makes sense as it stands; think of reasons why the question would be true or false.

    c) <u>For matching questions</u> – read both columns first, define key words, complete the easy ones first and use a process of elimination.

    d) <u>For essay questions</u> – remember to take time to think, make notes, and prepare a rough outline before you begin to write the essay. Include an introductory statement, supporting evidence and a summary statement. Read through your answer to make sure you have answered what is asked.

    e) <u>For multiple choice questions</u> – read the question followed by each option and eliminate the incorrect choices. When your options include "all of the above," "none of the above" or "a, b, not c", treat each option as a true-false question and relate it back to the original question.

ADDITIONAL SOURCES OF INFORMATION

UCF WEBSITE: On this website, you can look up the class schedule, register for classes, check on the status of your financial aid, see what courses you need to complete in order to graduate, or find out what social events are occurring around campus.
http://www.ucf.edu

UCF INFORMATION LINE: This number will provide you with general information about important dates and allows you to speak with an operator if you are searching for a specific number on campus.
(407) 823-2000

RESIDENT ADVISOR: Each dorm has a resident advisor who can help you find information concerning conflict resolution, where to get help with classes, or direct you to other types of miscellaneous assistance or campus services.

COLLEGE OF YOUR MAJOR: You can meet with peer advisors or the head of your department to ask questions concerning requirements for graduation and/or other academic information concerning your major.

MAIN INFORMATION KIOSK: This is a small building which is located to the right of the reflection pond where they can provide you with different pamphlets, phone numbers, and lost and found for the campus.

INFORMATION DESK AT STUDENT UNION: This desk is located on the first floor of the Student Union and can provide you with schedules of various events going on around campus.

UNDERGRADUATE REQUIREMENTS WEB PAGE: This page contains information concerning Foreign Language Requirements, the Gordon Rule, and the CLAST.
http://www.ucf.edu/catalog/0102/Undergraduate_Degree_Requirements/home.html

Appendix C: Mentor Orientation Script

MENTOR ORIENTATION

PREPARE PACKETS WITH THE FOLLOWING MATERIALS:

- **TWO COPIES OF THREE SEPARATE INFORMED CONSENT FORMS**
- **CODE OF CONDUCT FORM**
- **COPY OF THE MENTOR HANDBOOK**
- **COPY OF TIME 1 MEASURES WITH APPROPRIATE MENTOR NUMBER**

ASK MENTORS TO COME IN, CHECK MENTOR'S NAME OFF OF ORIENTATION LIST AND GIVE THEM APPROPRIATE PACKET CORRESPONDING TO THEIR MENTOR NUMBER

1. Introduction

INTRODUCE ALL EXPERIMENTERS

Hello, before we start I need everyone to fill out the Informed Consent Forms and a Code of Conduct form. We are giving you two copies of each Informed Consent form: one for you to sign and give to us, the other for you to take home.

By signing the Informed Consent form you are agreeing to participate in this study. In addition, we need you to look over and sign the Code of Conduct form. By signing this form you are agreeing to abide by the UCF Code of Conduct while participating in this study. The entire Code of Conduct can be found on page 8 of the Mentor Handbook.

MAKE SURE TO PICK UP AND SIGN ONE COPY OF THE INFORMED CONSENT FORMS/CODE OF CONDUCT FORM

HAVE MENTORS KEEP ONE COPY OF INFORMED CONSENT FORMS AND YOU KEEP THE FORMS YOU SIGNED

We would like to thank all of you for agreeing to participate as mentors in our pilot program. We know that the first year of college can be a very stressful time for freshmen and we are hoping that projects like this mentoring program will help freshmen to cope with their first year. Our two main goals in this pilot program are to determine:

- If mentoring will benefit the incoming freshmen.
- If 30 minutes a week is enough time to give the incoming freshmen any benefit, or do we need to make the sessions longer. This is why we ask you not to interact with your protégé outside the mentoring sessions until the program is over.

The purpose of today's orientation session is to familiarize you with what will be required of you as a mentor. Additionally, we will be asking you to fill out a number of questionnaires. This session should only take one hour to complete, however you will be paid for the time you spend here today.

If you turn to page 3 in your Mentor Handbook, it gives you a brief introduction concerning the purpose of our program, which you may read over at your convenience.

2. Responsibilities and Regulations

Page 4 of your Mentor Handbook describes your responsibilities as a mentor in this program.

- You must attend all assigned meetings with your protégé. If you are going to be unable to make one of your sessions, please call one of the numbers on this list to reschedule.

HANDOUT PHONE CARD

- You must make up any missed session the same week that you were originally scheduled to meet. Please remember that we will not have a great deal of flexibility in rescheduling you, as we will be conducting sessions around the clock, therefore it is imperative that you do not miss a session.
- Do not use your last name when speaking with your protégé.
- Do not ask your protégé for his or her last name.
- Do not contact your protégé outside of the context of the program until the mentoring sessions have ended. You are free to provide them with any information you like after the program is over.

3. Payment

On page 4 of the Mentor Handbook, payment is explained.

- You will be paid at the end of the program once you have completed all of your sessions.
- You will be paid $8 per hour of participation.
- It may take 2-4 weeks for your check to arrive after the program has ended and the appropriate paperwork has been turned in.
- We will need a current address to send your check to; so if you do not provide us with it, you might not get paid.

4. Possible Topics of Discussion and the Code of Conduct

While you are allowed to discuss anything with your protégé, we have provided you with some suggested topics of discussion for your sessions on page 5 of the Mentor Handbook. We have also provided you with some information in the handbook that may be helpful in answering some of your protégé's questions. There are current facts about UCF on page 6, UCF Rules and Regulations are found on page 7, the Code of Conduct is on page 8, and a list of Frequently Asked Questions regarding UCF are found on page 11.

Department Locations and Phone Numbers for the College of Arts and Sciences are on page 12. Information about how to Obtain Your SASS Degree Audit is on page 13 and University Requirements is on page 14, including Gordon Rule Requirements and General Education Requirements.

5. Showing Transcripts

We would like to see your current degree audit that we asked you to bring. All you need to do is give it to one of us and we will check you off our list. If you do not have a copy of your degree audit with you, please bring it to your first mentoring session.

6. Video Taping

Please be aware that all sessions will be videotaped to record your conversations since the experimenter will not be in the room with you. We will have both you and your protégé wear a lapel mike during the session. We ask that you try to stay seated so that you will be facing the video camera at all times during the session.

7. Filling Out Questionnaires

Now we need you to complete some paperwork. Please note that on the NEO form you will be responding to questions going **across the rows and not down the columns.**

ALL MENTORS MUST FILL OUT THESE FORMS:

- COMPLETE TIME 1 MEASURES
- COMPLETE NEO

10. CONCLUSION

This concludes our orientation. Does anyone have any questions?

Thank you very much for attending. We will be conducting the mentoring sessions here in the same room. Please be sure to arrive promptly on time. Please wait outside the door until the experimenter comes out to get you as there may be an experimental session in progress. See you next week at your scheduled time for your first mentoring session!

Appendix D: NAVAIR Informed Consent Form

INFORMED VOLUNTARY CONSENT TO PARTICIPATE

1. I am being asked to voluntarily participate in a research study titled, "Effects of Personality and Motivation on the Mentoring Relationship." I will be asked to participate in a series of mentor/protégé communication sessions. Various questionnaire measures will be collected at both the beginning and end of the study, and the conversations between the mentor and protégé will be recorded on videotape. The experimenter will monitor all interactions between my protégé/mentor and me to ensure there are no risks involved. I will be asked to attend a one-hour orientation session, 4 half-hour sessions over a period of four weeks with my mentor/protégé, and at the last session extra time to complete payment information and final questionnaires. I realize that my performance throughout the experiment will be recorded using video recording equipment.

I understand that I do not have to answer any questions that I do not wish to answer on any of the questionnaires, and that I have the right to examine the questionnaires before signing this informed consent form.

2. I understand that the investigators believe that the risks or discomforts to me are as follows:

None. I understand that during the study, all personal data or information (such as demographic data/video and audio recordings) will be secured under lock and key until destroyed. Any subject identification keys will be destroyed at the end of the study. This procedure will insure that my personal data cannot be used in any way that might impact my career, academic progress, or standing in my respective professional or educational communities.

3. The benefits that I may expect from my participation in this study are minimal. I understand that I will receive no direct benefit other than the knowledge that participation in this study will aid efforts to improve the performance, safety, and/or the effectiveness of the US Navy. I may have a copy of any publications resulting from the current study if I so desire. As a mentor or protégé, I will receive $8 per hour for my participation.

4. My confidentiality during the study will be ensured by assigning me a coded identification number. My name will not be directly associated with any data. The confidentiality of the information related to my participation in this research will be ensured by maintaining records only coded by identification numbers. Video and photographic images of me will not be published or displayed without my specific written permission. All videotapes will be maintained in the laboratory of NAWCTSD by the Principal Investigator. These tapes will be used for coding the content of the communications and viewed only by the researchers. Individual images will not be used in any public research reports, presentations, etc.

5. If I have questions about this study I should contact the following individuals:

- **Principal Investigator**: Dr. Kimberly A. Jentsch, NAVAIR Orlando Training Systems Division, Partnership 1 Building, Room 211, 12350 Research Parkway, Orlando, Florida, 32826-3275, (407) 380-4645, kimberly.jentsch@navy.mil

- **Co-Investigator**: Lizzette Lima, NAVAIR Orlando Training Systems Division, Partnership 1 Building, Room 211, 12350 Research Parkway, Orlando, Florida, 32826-3275, (407) 380-4766, limal@navair.navy.mil

- Dr. Robert T. Hays, CPHS Chairman, NAVAIR Orlando Training Systems Division, Partnership 1 Building, Room 214, 12350 Research Parkway, Orlando, FL 32826-3275, (407) 380-8358, haysrt@navair.navy.mil

6. My participation in this study is completely voluntary.

7. My participation in this study may be stopped by the investigator at any time without my consent if it is believed the decision is in my best interest. There will be no penalty or loss of benefits to which I am otherwise entitled at the time my participation is stopped.

8. No out of pocket costs to me may result from my voluntary participation in this study.

9. If I decide to withdraw from further participation in this study, there will be no penalties. To ensure my safe and orderly withdrawal from the study, I will inform the Principal Investigator, Dr. Kimberly Jentsch.

10. Official government agencies may have a need to inspect the research records from this study, including mine, in order to fulfill their responsibilities.

11. I have received a statement informing me about the provisions of the Privacy Act (attached).

12. I have been informed that the CPHS Coordinator is responsible for storage of research records related to my participation in this study. My consent form will be stored under lock and key in compliance with NAVAIRWARCENACDIV Instruction, Protection of Human Subjects, dated 05 March 2002.

13. I have been given an opportunity to ask questions about this study and its related procedures and risks, as well as any of the other information contained in this consent

form. All my questions have been answered to my satisfaction. I understand what has been explained in this consent form about my participation in this study. I do not need any further information to make a decision whether or not to volunteer as a participant in this study. By my signature below, I give my voluntary informed consent to participate in the research as it has been explained to me, and I acknowledge receipt of a copy of this form for my own personal records.

_____	_____	_____	_____
Volunteer Signature	Name	SSN	Date

_____	_____	_____	_____
Investigator Signature	Name	SSN	Date

Appendix E: UCF Code of Conduct Form

Code of Conduct

I have been given a copy of the UCF Rules of Conduct, and agree that my communications during the mentoring sessions will not violate these rules.

I am aware that the mentoring program has specifically prohibited:

- Academic Dishonesty/Cheating
- Personal Abuse
- Sexual Misconduct
- Gambling
- Commission of a Felony or a Misdemeanor

_____

Participant's Signature Date

_____

Experimenter's Signature Date

Appendix F: Mentor Time 1 Measures

Demographic Data Form for Mentors

1. Gender: Male Female

2. Age: _____

3. Class
A. Freshman
B. Sophomore
C. Junior
D. Senior
E. Other

4. Major: _____

5. GPA: _____

6. SAT/ACT Score: _____

7. Race: _____

8. GRE Score: _____

9. Please list any organizations (e.g. honor society, sorority/fraternity, etc.) that you participate in and please provide an estimate of how many hours each week you spend on that particular organization.

_____
_____
_____
_____
_____

10. Please list any sports and extracurricular activities that you participate in and please provide an estimate of how many hours each week you spend on that particular activity.

_____
_____
_____
_____

11. If you engage in community service or volunteer activities, please list them and provide an estimate of how many hours each week you may spend in that particular activity.

_____
_____
_____
_____

12. We would like to be able to contact you at the end of the semester to find out if this program was helpful to you. You are under no obligation to provide us with this information, however, if you don't mind us calling you or emailing you, please provide both your local and permanent phone numbers, and/or your email address.

Local phone number: _____

Permanent phone number: _____

Email Address: _____

Individuals have different views about how they approach any type of work. Please read each statement below and select the response that reflects how much you agree or disagree with the statement.

	Strongly Disagree						**Strongly Agree**
1. I prefer to do things that I can do well rather than things that I do poorly.	1	2	3	4	5	6	7
2. I'm happiest at work when I perform tasks on which I know that I won't make any errors.	1	2	3	4	5	6	7
3. The things I enjoy the most are the things I do best.	1	2	3	4	5	6	7
4. The opinions others have about how well I can do certain things are important to me.	1	2	3	4	5	6	7
5. I feel smart when I do something without making any mistakes.	1	2	3	4	5	6	7
6. I like to be fairly confident that I can successfully perform a task before I attempt it.	1	2	3	4	5	6	7
7. I like to work on tasks that I have done well on in the past.	1	2	3	4	5	6	7
8. I feel smart when I can do something better than most other people.	1	2	3	4	5	6	7
9. The opportunity to do challenging work is important to me.	1	2	3	4	5	6	7
10. When I fail to complete a difficult task, I plan to try harder the next time I work on it.	1	2	3	4	5	6	7
11. I prefer to work on tasks that force me to learn new things.	1	2	3	4	5	6	7
12. The opportunity to learn new things is important to me.	1	2	3	4	5	6	7
13. I do my best when I'm working on a fairly difficult task.	1	2	3	4	5	6	7
14. I try hard to improve on my past performance.	1	2	3	4	5	6	7
15. The opportunity to extend the range of my abilities is important to me.	1	2	3	4	5	6	7
16. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work.	1	2	3	4	5	6	7

Please rate each item in terms of how true it is of you. Please circle one and only one letter for each question according to the following scale:

N = Never or almost never true of you
S = Sometimes true of you
O = Often true of you
A = Always true of you

N S O A	1. I am not that concerned about what other people think of my work.
N S O A	2. I prefer having someone set clear goals for me in my work.
N S O A	3. The more difficult the problem, the more I enjoy trying to solve it.
N S O A	4. I am keenly aware of the goals that I have for getting good grades.
N S O A	5. I want my work to provide me with opportunities for increasing my knowledge and skills.
N S O A	6. To me, success means doing better than other people.
N S O A	7. I prefer to figure things out for myself.
N S O A	8. No matter what the outcome of a project, I am satisfied if I feel I gained a new experience.
N S O A	9. I enjoy relatively simple, straightforward tasks.
N S O A	10. I am keenly aware of the GPA (grade point average) goals I have for myself.
N S O A	11. Curiosity is the driving force behind much of what I do.
N S O A	12. I'm less concerned with what work I do than what I get for it.
N S O A	13. I enjoy tackling problems that are completely new to me.
N S O A	14. I prefer work that I know I can do well over work that stretches my abilities.
N S O A	15. I'm concerned about how other people are going to react to my ideas.
N S O A	16. I seldom think about grades and awards.
N S O A	17. I'm more comfortable when I can set my own goals.
N S O A	18. I believe there is no point in doing a good job if nobody else knows about it.
N S O A	19. I am strongly motivated by the grades I can earn.
N S O A	20. It is important for me to be able to do what I enjoy most.
N S O A	21. I prefer working on projects with clearly specified procedures.
N S O A	22. As long as I can do what I enjoy, I'm not concerned about exactly what grades or awards earn.
N S O A	23. I enjoy doing work that is so absorbing that I forget about everything else.
N S O A	24. I am strongly motivated by the recognition I can earn from other people.
N S O A	25. I have to feel that I'm earning something for what I do.
N S O A	26. I enjoy trying to solve complex problems.
N S O A	27. It is important for me to have an outlet for self-expression.
N S O A	28. I want to find out how good I really can be at my work.
N S O A	29. I want other people to find out how good I really can be at my work.
N S O A	30. What matters most to me is enjoying what I do.

Instructions:

You will find twenty groups of statements listed below. Each group is composed of three statements. Each statement refers to a way of thinking about people or things in general. The statements reflect opinions and not matters of fact – there are no right or wrong answers, and different people have been found to agree with different statements.

Read each of the three statements in each group. First decide which of the statements is *most true* or *closest* to your own beliefs. Put a plus sign (+) in the space provided before that statement. Then decide which of the remaining two statements is *most false* or the *farthest* from your own beliefs. Put a minus sign (-) in the space provided before that statement. Leave the last of the three statements unmarked.

Most True = +
Most False = –

Here is an example:

_____ A. It is easy to persuade people but hard to keep them persuaded.
__+__ B. Theories that run counter to common sense are a waste of time.
__–__ C. It is only common sense to go along with what other people are doing and not be too different.

In this example, statement B would be the one you believe in *most strongly* and statements A and C would be the ones that are *not* as characteristic of your opinions. Of these two, statement C would be the one you believe in *least strongly* and the one that is *least* characteristic of your beliefs.

You will find some of the choices easy to make; others will be quite difficult. Do not fail to make a choice no matter how hard it may be. Remember: mark *two* statements in each group of three – the one that is closest to your own beliefs with a + and that is farthest from your beliefs with a -. Do not mark the remaining statement.

1. _____ A. It takes more imagination to be a successful criminal than a successful business person.
   _____ B. The phrase "the road to hell is paved with good intentions" contains a lot of truth.
   _____ C. Most people forget more easily the death of their parents than the loss of their property.

2. _____ A. People are more concerned with the car they drive than with the clothes their spouses wear.
   _____ B. It is very important that imagination and creativity in children be cultivated.
   _____ C. People suffering from incurable diseases should have the choice of being put painlessly to death.

3. _____ A. Never tell anyone the real reason you did something unless it is useful to do so.
   _____ B. The well-being of the individual is the goal that should be worked for before anything else.
   _____ C. Once a truly intelligent person makes up his mind about the answer to a problem he rarely continues to think about it.

4. _____ A. People are getting so lazy and self-indulgent that it is bad for our country.
   _____ B. The best way to handle a person is to tell them what they want to hear.
   _____ C. It would be a good thing if people were kinder to others less fortunate than themselves.

5. _____ A. Most people are basically good and kind.
   _____ B. The best criterion for a wife or husband is compatibility – other characteristics are nice but not essential.
   _____ C. Only after you have gotten what you want from life should you concern yourself with the injustices of the world.

6. _____ A. Most people who get ahead in the world lead clean, moral lives.
   _____ B. Any person worth his salt should not be blamed for putting career above family.
   _____ C. People would be better off if they were concerned less with how to do things and more with what to do.

7. _____ A. A good teacher is one who points out unanswered questions rather than gives explicit answers.
_____ B. When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons that might carry more weight.
_____ C. A person's job is the best single guide to the sort of person he or she is.

8. _____ A. The construction of such monumental works as the Egyptian pyramids was worth the enslavement of the workers who built them.
_____ B. Once a way of handling problems has been worked out it is best to stick to it.
_____ C. You should take action only when you are sure that it is morally right.

9. _____ A. The world would be a much better place to live in if people would let the future take care of itself and concern themselves only with enjoying the present.
_____ B. It is wiser to flatter important people.
_____ C. Once a decision has been made, it is best to keep changing it as new circumstances arise.

10. _____A. It is a good policy to act as if you are doing the things you do because you have no other choice.
_____ B. The biggest difference between most criminals and other people is that criminals are stupid enough to get caught.
_____ C. Even the most hardened and vicious criminal has a spark of decency somewhere inside.

11. _____ A. All in all, it is better to be humble and honest than to be important and dishonest.
_____ B. People who are able and willing to work hard have a good chance of succeeding in whatever they want to do.
_____ C. If a thing does not help us in our daily lives, it is not very important.

12. _____ A. People should not be punished for breaking a law that they think is unreasonable.
_____ B. Too many criminals are not punished for their crimes.
_____ C. There is no excuse for lying to someone else.

13. _____ A. Generally speaking, people will not work hard unless they are forced to do so.
_____ B. Every person is entitled to a second chance, even after committing a serious mistake.
_____ C. People who cannot make up their minds are not worth bothering about.

14. _____ A. A person's first responsibility is to spouse, not to parents.
_____ B. Most people are brave.
_____ C. It is best to pick friends who are intellectually stimulating rather than ones who are comfortable to be around.

15. _____ A. There are very few people in the world worth concerning yourself about.
_____ B. It is hard to get ahead without cutting corners here and there.
_____ C. A capable person motivated for his or her own gain is more useful to society than a well-meaning but ineffective person.

16. _____ A. It is best to give others the impression that you can change your mind easily.
_____ B. It is a good working policy to keep on good terms with everyone.
_____ C. Honesty is the best policy in all cases.

17. _____ A. It is possible to be good in all respects.
_____ B. To help oneself is good; to help others is even better.
_____ C. War and threats of war are unchangeable facts of human life.

18. _____ A. Barnum was probably right when he said there is at least one sucker born every minute.
_____ B. Life is pretty dull unless one deliberately stirs up some excitement.
_____ C. Most people would be better off if they controlled their emotions.

19. _____ A. Sensitivity to the feelings of others is worth more than poise in social situations.
_____ B. The ideal society is one in which all people know their place and accept it.
_____ C. It is safest to assume that all people have a vicious streak and that it will come out when the chance arises.

20. _____ A. People who talk about abstract problems usually do not know what they are talking about.
_____ B. Anyone who completely trusts anyone else is asking for trouble.
_____ C. It is essential for the functioning of a democracy that everyone vote.

Please indicate on the scale from 1 - 5 the extent to which each item motivated or influenced your desire to become a mentor in this mentoring program.

	No Extent				**Great Extent**
1. A desire to put this on my resume or curriculum vita.	1	2	3	4	5
2. To enhance my reputation with others (e.g., faculty, other students).	1	2	3	4	5
3. To earn respect from others (e.g., faculty, other students) within your university.	1	2	3	4	5
4. Because I am being paid for participating in this mentoring program.	1	2	3	4	5
5. To be recognized for my academic accomplishments.	1	2	3	4	5
6. To benefit my university.	1	2	3	4	5
7. To help other students succeed within my university.	1	2	3	4	5
8. To contribute to research aimed at helping students.	1	2	3	4	5
9. To ensure that knowledge and information is passed on to other students.	1	2	3	4	5
10. To make a difference in a freshman's academic career.	1	2	3	4	5
11. The personal pride that mentoring someone brings.	1	2	3	4	5
12. The personal gratification that comes from helping another student grow and develop.	1	2	3	4	5
13. To gain a sense of self-satisfaction by passing on insights to other students.	1	2	3	4	5
14. A desire to gain mentoring experience.	1	2	3	4	5

Appendix G: Protégé Handbook

PROTÉGÉ HANDBOOK

TABLE OF CONTENTS

Introduction..……. 3

Responsibilities..……...……. 4

Payment..……. 5

Possible Topics of Discussion with Mentor….……..…….. 6

Code of Conduct……...…….…… 7

INTRODUCTION

Thank you for agreeing to participate as a protégé in our pilot mentoring program. We know that the first year of college can be a very stressful time for freshmen and we hope that projects like this mentoring program will help freshmen to cope with the challenges of their first year. Our two main goals in this pilot mentoring program are to determine:

- If mentoring will benefit the incoming freshmen.

- If 30 minutes a week is enough time to give the incoming freshmen any benefit or do we need to make the sessions longer. This is why we ask you not to interact with your mentor outside the mentoring sessions until the program is over.

BACKGROUND

Mentoring is defined as a relationship in which one person, the mentor, helps another person, the protégé, to reach his or her goals. Since these goals may vary among people, the form of mentoring may vary, as well. Historically, we tend to think of mentoring as an informal relationship in which someone in authority takes a junior person under his or her wing. Informal mentors are not managed, structured, or formally recognized by any type of organization. Traditionally, they are spontaneous relationships that occur without any external involvement. In contrast, formal mentorship programs are managed and sanctioned by an organization.

Formal mentoring relationships have been shown to provide protégés with two major types of support: career and psychosocial. Career support is any activity in which the mentor helps the protégé move towards the accomplishment of an academic/career goal. For example, a mentor could assist his or her protégé by providing constructive feedback, opportunities for improvement, or help in refining various skills (e.g., study habits). Psychosocial Support is any activity in which the mentor helps increase the protégé's feelings of competence and treats them in a respectful manner. For example, the mentor could serve as a role model or a person with whom the protégé feels comfortable discussing various issues.

RESPONSIBILITIES and REGULATIONS

- Attend orientation session and all assigned meetings with mentor.
- Be flexible and patient with the scheduling.
- Do not use your last name when speaking with your mentor.
- Do not ask your mentor for their last name.
- Do not ask your mentor for their location.
- Do not contact your mentor until the program has ended.
- You must make-up any missed session the same week that it was originally scheduled.

PAYMENT

- You will be paid one time at the end of the program.
- You will be paid $8 an hour.
- It may take 4 - 6 weeks for your check to arrive after the program has ended and you have filled out the appropriate paperwork.
- We will need a current address to send your check to.

POSSIBLE TOPICS TO DISCUSS WITH YOUR MENTOR

Mentoring relationships have been shown to provide protégés with two major types of support: Career and Psychosocial. Thus, topics that you might want to address with your mentor include, but are NOT limited to:

- Campus Life
- Student Organizations
- School Policy
- Career Development
- Personal Issues
- Health and Well-being
- Stress Management
- Fitness/Sports
- Conflicts with Roommates
- Time Management
- Class Scheduling/Advising
- Course Work
- Study Habits

UCF Rules of Conduct

These conduct rules shall apply to all undergraduate students, graduate students, and student organizations of the university and its area campuses and shall be deemed a part of the terms and conditions of admission and enrollment of all students.

Failure to comply with duly established laws or university regulations may subject violator(s) to appropriate civil authorities. Serious violations of university regulations shall be recorded in the record of the individual(s) and/or the organization.

Generally, authority necessary to enforce regulations is vested in the vice president for Student Development and Enrollment Services or designee. Selected functions of this authority are shared with faculty, staff and students. Some functions of student judicial affairs administration are assisted through review boards or councils.

Students and student organizations are also subject to university judicial sanctions for the violation of a Board of Regents or university rule or a federal, state, county, or city law, which has an adverse impact on the university.

The following defined and described actions include, but are not limited to, conduct for which judicial action may be taken. These rules apply to all students for intentional conduct that occurs against other students or non-students on university premises, while participating in university sponsored or related activities, during school sessions, during holidays, and during periods of continuous enrollment, or off-campus when that conduct is determined to adversely affect the interest(s) of any part of the university. A student is continuously enrolled, once admitted, unless the student fails to register in two consecutive terms, excluding summer terms, and must re-apply for university admission.

Code of Conduct

1. Academic Dishonesty/Cheating

A. Cheating is a violation of student academic behavior standards.

The common forms of cheating include:

1. Unauthorized assistance: communication to another through written, visual, or oral means. The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment or project. The unauthorized possession or use of examination or course related material may also constitute cheating.

2. Plagiarism: whereby another's work is deliberately used or appropriated without any indication of the source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials taken from another is plagiarizing.

B. Any student who knowingly helps another violate academic behavior standards is also in violation of the standards.

2. Providing False and Misleading Information and/or Falsification of University Records.

A. Withholding related information, or furnishing false or misleading information (oral or written) to university officials, faculty or staff, including use or attempted use of a fraudulent identification card or driver's license.

B. Forgery, alteration or misuse of any university document, material, file, record or instrument of identification.

C. Deliberately and purposefully providing false or misleading verbal or written information about another person that results in damage to that person's reputation.

3. Disruptive Conduct

A. An act which intentionally impairs, interferes with, or obstructs the orderly conduct, processes, and functions of the university or

any part thereof.

B. Violence which deliberately impedes or interferes with the normal flow of pedestrian and vehicular traffic.

C. An act which deliberately impedes or interferes with the normal flow of pedestrian and vehicular traffic.

D. An act which tampers with the election(s) of any university student organization or group.

E. Willful destruction of university property or property of members or guests of the university.

F. Misuse of any university safety equipment, firefighting equipment, or fire alarm.

G. An act which deliberately interferes with the academic freedom or the freedom of speech of any member or guest of the university community.

H. A false report of an explosive or incendiary device, which constitutes a threat or bomb, scare.

I. Conduct which is lewd or indecent.

J. Breach of peace: an act, which aids, abets, or procures another person to breach the peace on the university premises or at university sponsored/related functions.

K. Failure to comply with oral or written instruction from duly authorized university officials or law enforcement officers acting in the performance of their duties, including failure to identify oneself to these persons when requested to do so.

4. Personal Abuse

A. Verbal abuse of any person including lewd, indecent, or obscene expressions of conduct.

B. Physical abuse or threat of physical abuse to any person.

C. Harassment: defined as behavior directed at a member of the university community which would cause severe emotional

distress, intimidation, or coercion to a reasonable person in the victim's position, or would place a reasonable person in the victim's position in fear of bodily injury or death. This definition, however, shall not be interpreted to abridge the right of any member of the university community to freedom of expression protected by the 1st amendment of the United States Constitution and any other applicable law.

D. Failure to respect the privacy of other individuals.

E. Retaliation against or harassment of complainant(s) or other person(s) alleging misconduct.

5. Sexual Misconduct

A. Sexual Assault: acquaintance rape (date, friend, someone the victim knows casually or through mutual friends) or any other form of rape. Rape is defined as unconsenting sexual penetration, coercion, or penetration against the victim's will. Any sexual conduct which occurs between members of the university community on or off the UCF campus shall be consensual, meaning that willing and verbal agreement shall be clearly given in advance by all persons involved at each new level of such conduct. A person shall not knowingly take advantage of another person who is under 18 years of age, mentally defective, under the influence of prescribed medication, alcohol or other chemical drugs, or who is not conscious or awake, and thus is not able to give consent as defined above. Further, a person shall not physically or verbally coerce another person to engage in any form of sexual conduct, to the end that consent as defined above is not given.

B. Sexual Harassment: unwelcome sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature which prevents or impairs another person's full enjoyment of the educational benefits, atmosphere, or opportunities provided as part of the university.

C. Public Indecency: exposure of one's body in such a manner that another party reasonably could be offended or to display sexual behavior which another person reasonably finds offensive.

D. Voyeurism: sexual stimulation sought through trespass, spy, or eavesdrop activities.

6. Larceny/Property Damage

A. Unauthorized use, possession, or services or theft of property. Such property may be personal or public.

B. Damage or defacing of university property or the property of another person whether or not it is on university premises.

7. Hazing

A. Any action or situation which recklessly or intentionally endangers the mental or physical health and/or safety of a student for the purpose of initiation or admission into, or affiliation with, any organization operating under registration with the university.

B. Brutality of a physical nature such as whipping, beating, branding, forced calisthenics, exposure to the elements; forced consumption of any food, liquor, drug, or other substances; or other forced elements; or other forced activity which could adversely affect the physical health or safety of the individual.

C. Any activity which could subject the individual to mental stress such as sleep deprivation, forced exclusion from social contact, forced contact which could result in embarrassment, or any other activity which could adversely affect the mental health or dignity of the individual.

8. Unauthorized Use of Keys, and/or Entry

A. Unauthorized possession, duplication or use of keys to any university premises.

B. Unauthorized entry or attempted entry to university premises.

9. Misconduct at University Sponsored/Related Activities

Violation of university rules, or regulations of a host institution sponsored/related activity.

10. Unlawful Possession Use or Sale of any Controlled Substance

Use, possession, sale, distribution or attempt to obtain any narcotic or other controlled substances, except as expressly permitted by law.

11. Alcoholic Beverages Violation

The use, possession, sale and/or distribution of alcoholic beverages except as expressly permitted by the law and university rules, and behavior under influence of alcoholic beverages, are prohibited.

12. Possession and/or Use of a Firearm and/or Dangerous Material

A. Possession or use of firearms or any weapon on university premises or at university sponsored/related activities.

B. Possession or use of fireworks of any description, explosives, or chemicals which are disruptive, explosive, or corrosive on university premises or at university sponsored/related activities.

13. Instigation or Participation in Group Disturbances During Demonstrations, Parades, or Picketings

A. Participation in a demonstration(s), parade(s), or picketing which invades the rights of others, interferes with the educational function of the university or jeopardizes public order and safety.

B. Leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.

14. Misuse of Computing and Telecommunications Resources.

The university supports open access to electronic communication and information. Nevertheless, the preservation of an open computing and communications environment requires adherence by users to applicable law and university's rules regarding the responsible use of computing systems, software and telecommunication networks.

15. Gambling

A. To play in an unlawful game of chance for money or for anything of value on university premises or at any affair sponsored by a student organization.

B. To unlawfully sell, barter or dispose of a ticket, order, or any

interest in a scheme of chance by whatever name on university premises or at any affair sponsored by a student organization.

C. To wage on a university team or organization in a competition, with a direct interest in the success of the competition.

16.University Designated Student Residence Violations

Repeated or flagrant violations of regulations governing university student residences.

17. University Wordmark

Unauthorized use of the official university wordmark, Pegasus, monogram, seal, or other graphic identity symbol.

18. Commission of a Felony or a Misdemeanor

Commission of an act, which is a felony or misdemeanor as provided in local, state, or federal law.

Appendix H: Protégé Orientation

PROTÉGÉ ORIENTATION

PREPARE PACKETS WITH THE FOLLOWING MATERIALS:

- **TWO COPIES OF INFORMED CONSENT FORMS**
- **CODE OF CONDUCT FORM**
- **PROTÉGÉ HANDBOOK**
- **COPY OF TIME 1 MEASURES FOR PROTÉGÉ WITH APPROPRIATE NUMBER**

ASK PROTEGES TO COME IN, GIVE THEM APPROPRIATELY NUMBERED PACKET WITH THEIR DYAD NUMBER

1. Introduction

INTRODUCE ALL EXPERIMENTERS

Hello, before we start I need everyone to fill out Informed Consents and a Code of Conduct form. We are giving you two copies of each Informed Consent form: one for you to sign and give to us, the other for you to take home.

By signing the Informed Consent form you are agreeing to participate in this study. In addition, we need you to look over and sign the Code of Conduct form. By signing this form you are agreeing to abide by the UCF Code of Conduct while participating in this study. The entire Code of Conduct can be found on page 6 of your handbook.

MAKE SURE TO PICK UP SIGNED COPY OF THE INFORMED CONSENT FORMS/CODE OF CONDUCT FORM

HAVE PROTÉGÉ KEEP ONE COPY OF EACH OF INFORMED CONSENT FORMS AND YOU KEEP THE FORMS YOU SIGNED

We would like to thank all of you for agreeing to participate as protégés in our pilot program. We know that the first year of college can be a very stressful time for freshmen and we hope that projects like this mentoring program will help freshmen cope with their first year. Our two main goals in this pilot program are to determine:

- If mentoring will benefit the incoming freshmen.
- If 30 minutes a week is enough time to give the incoming freshmen any benefit, or do we need to make the sessions longer. This is why we ask you not to interact with your mentor outside the mentoring sessions until the program is over.

The purpose of today's orientation session is to familiarize you with what will be required of you as a protégé. Additionally, we will be asking you to fill out a number of questionnaires. This session should only take one hour to complete, however you will be paid for the time you spend here today.

If you turn to page 3 in your Protégé Handbook, it gives you a brief introduction concerning the purpose of our research, which you may read over at your convenience.

***2.* Responsibilities and Regulations**

Page 4 of your Protégé Handbook describes your responsibilities as a Protégé in this program.

- You must attend all assigned meetings with your mentor. If you are going to be unable to make one of your sessions call one of the numbers on this list to reschedule.

HANDOUT PHONE NUMBER CARD

- You must make up any missed session the same week that you were originally scheduled to meet. Please remember that we will not have a great deal of flexibility in rescheduling you, as we will be conducting sessions around the clock, therefore it is imperative that you do not miss a session.
- Do not use your last name when speaking with your mentor.
- Do not ask your mentor for their last name.
- Do not contact your mentor outside of the context of the program until the mentoring sessions have ended. You are free to provide them with any information you like after the program is over.

3. Payment

On page 4 of the Protégé Handbook, payment is explained.

- You will be paid at the end of the program once you have completed all of your sessions.
- You will be paid $8 per hour of participation.
- It may take 2 – 4 weeks for your check to arrive after the program has ended and the appropriate paperwork has been turned in.
- We will need a current address to send your check to; so if you do not provide us with it, you might not get paid.

4. Possible Topics of Discussion

While you are allowed to discuss anything with your mentor, we have provided you with some suggested topics of discussion for your sessions on page 5 of the Protégé Handbook.

5. Videotaping Sessions

Please be aware that all sessions will be videotaped to record your conversations since the experimenter will not be in the room with you. We will have both you and your mentor wear lapel mikes during the session.

6. Giving Transcripts/Degree Audits

We would like to see your current degree audit that we asked you to bring. All you need to do is give it to one of us and we will check you off our list. If you do not have a copy of your degree audit with you, please bring it to your first mentoring session.

7. Filling Out Questionnaires

Now we need you to complete some paperwork.

8. CONCLUSION

This concludes the orientation. Does anyone have any questions?

Thank you very much for attending. We will be conducting the mentoring sessions here in the same room. Please be sure to arrive promptly on time. Please wait outside the door until the experimenter comes out to get you as there may be a mentoring session in progress. See you next week at your scheduled time for your first mentoring session!

Appendix I: Protégé Time 1 Measures

Demographic Data - Protégés

1. Gender: Male Female

2. Age: _____

3. Intended Major: _____

4. GPA: (High School if no College GPA yet)_____

5. SAT/ACT Score: _____

6. Race: _____

7. Please list any organizations (e.g. honor society, sorority, etc.) that you participate in and please provide an estimate of how many hours each week you spend on that particular organization.

_____
_____
_____
_____

8. Please list any sports and extracurricular activities that you participate in and please provide an estimate of how many hours each week you spend on that particular activity.

_____
_____
_____
_____

9. If you engage in community service or volunteer activities, please list them and provide an estimate of how many hours each week you may spend in that particular activity.

_____
_____
_____
_____

10. We would like to be able to contact you at the end of the semester to find out if this program was helpful to you.

You are under no obligation to provide us with this information, however, if you don't mind us calling you or emailing you, please provide both your local and permanent phone numbers, and/or email address.

Local phone number: _____

Permanent phone number: _____

Email Address: _____

Please indicate on the scale from 1-6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					**Strongly Agree**
1. My schoolwork this semester has had a negative impact on my health.	1	2	3	4	5	6
2. I have been under a great deal of tension this semester.	1	2	3	4	5	6
3. Problems with school have kept me awake at night this semester.	1	2	3	4	5	6

There are many physical symptoms associated with stress. During the past thirty days, how many times did you experience each of the following symptoms?

1. An upset stomach or nausea	None	1	2	3	4	More than four
2. A backache	None	1	2	3	4	More than four
3. Trouble sleeping	None	1	2	3	4	More than four
4. A skin rash	None	1	2	3	4	More than four
5. Shortness of breath	None	1	2	3	4	More than four
6. Chest pain	None	1	2	3	4	More than four
7. Headache	None	1	2	3	4	More than four
8. Fever	None	1	2	3	4	More than four
9. Acid indigestion or heartburn	None	1	2	3	4	More than four
10. Eye strain	None	1	2	3	4	More than four
11. Diarrhea	None	1	2	3	4	More than four
12. Stomach cramps (not menstrual)	None	1	2	3	4	More than four
13. Constipation	None	1	2	3	4	More than four
14. Heart pounding when not exercising	None	1	2	3	4	More than four
15. An infection	None	1	2	3	4	More than four
16. Loss of appetite	None	1	2	3	4	More than four
17. Dizziness	None	1	2	3	4	More than four
18. Tiredness or fatigue	None	1	2	3	4	More than four

How confident are you that you could successfully complete the following tasks?

	Not at all Confident					**Extremely Confident**
1. Research a term paper.	1	2	3	4	5	6
2. Write course papers.	1	2	3	4	5	6
3. Do well on your exams.	1	2	3	4	5	6
4. Take good class notes.	1	2	3	4	5	6
5. Keep up to date with your schoolwork.	1	2	3	4	5	6
6. Manage time effectively.	1	2	3	4	5	6
7. Understand your textbooks.	1	2	3	4	5	6
8. Participate in class discussions.	1	2	3	4	5	6
9. Ask a question in class.	1	2	3	4	5	6
10. Get a date when you want one.	1	2	3	4	5	6
11. Talk to your professors.	1	2	3	4	5	6
12. Talk to university staff.	1	2	3	4	5	6
13. Ask a professor a question.	1	2	3	4	5	6
14. Make new friends at college.	1	2	3	4	5	6
15. Join a student organization.	1	2	3	4	5	6

Appendix J: Experimental Scripts for Sessions 1, 2, 3 and 4

SCRIPT FOR FIRST EXPERIMENTAL SESSION

GATHER FOLLOWING MATERIALS FOR SESSION:

- **MENTOR HANDBOOK**
- **SCRATCH PAPER**
- **PEN**
- **STOPWATCH**
- **VIDEOTAPE FOR THAT MENTOR**
- **2 CONTACT CARDS**

PUT VIDEO TAPE FOR SESSION IN VIDEO RECORDER

ONCE MENTOR AND PROTÉGÉ ARE BOTH THERE, HAVE THEM SIT IN CHAIRS FACING EACH OTHER
SEAT MENTOR IN CHAIR FACING THE VIDEO CAMERA ALWAYS!!
MAKE SURE LAPEL MIKES ARE ON (CHECK LIGHT ON BOTH)

Hello, my name is _____.

I would like to thank you both again for agreeing to participate in our mentoring program.

You have been to orientation, and are familiar with what will be required of you.

GIVE MENTOR A HANDBOOK, PEN, AND SCRATCH PAPER

Here is your handbook, in case you need to refer to it.

You are getting ready for your first session and are probably wondering where to start. You might want to begin by introducing yourselves (first names only) and telling each other a little about your background and experiences in college.

Please remember that you are free to talk about anything as long as it does not violate the Code of Conduct.

One of the experimenters will let you know when there is one minute left and will tell you when the 30 minutes are up.

Please remember that if you will not be able to make your mentoring sessions or have any scheduling problems to please let us know by calling one of the numbers on this sheet.

PROVIDE CONTACT CARDS IF NEEDED

Please feel free to ask questions; if I am unable to answer your question at this moment I will be happy to get back to you with an answer during your next session.

Please remember that we will be videotaping each session. You may begin.

START TIMER ON WATCH

START VIDEO BY PRESSING RECORD

WHEN THERE IS ONE MINUTE LEFT ON TIMER, OPEN DOOR AND SAY "ONE MINUTE LEFT", THEN CLOSE THE DOOR

WHEN 30 MINUTES HAVE PASSED, OPEN THE DOOR AND SAY "OK, TIME'S UP. PLEASE SAY GOODBYE."

ONCE THEY HAVE SAID GOODBYE, STOP VIDEO RECORDER AND TAKE OUT THE VIDEO TAPE. GO INTO ROOM.

Do you have any questions before we let you go?

Thanks so much for coming. See you next week for your second session, same time, same place.

CHECK OFF EXPERIMENTAL SESSION COMPLETED ON VIDEOTAPE SPINE.
PUT VIDEO BACK IN LOCKBOX.

WRITE IN DATE THAT BOTH MENTOR AND PROTÉGÉ COMPLETED FIRST SESSION ON LABLE ON ENVELOPE

PREPARE FOR NEXT SESSION BY GATHERING MATERIALS.

SCRIPT FOR SECOND EXPERIMENTAL SESSION

GATHER FOLLOWING MATERIALS FOR SESSION:

- **MENTOR HANDBOOK**
- **SCRATCH PAPER**
- **PEN**
- **STOPWATCH**
- **VIDEOTAPE FOR THAT MENTOR**
- **2 CONTACT CARDS**

PUT VIDEO TAPE FOR SESSION IN VIDEO RECORDER.

ONCE MENTOR AND PROTÉGÉ ARE BOTH THERE, HAVE THEM SIT IN CHAIRS FACING EACH OTHER
SEAT MENTOR IN CHAIR FACING THE VIDEO CAMERA ALWAYS!!
MAKE SURE LAPEL MIKES ARE ON (CHECK LIGHT ON BOTH)

Hello, my name is _____.

I would like to thank you both again for agreeing to participate in our mentoring program. This is your second session.

GIVE MENTOR A HANDBOOK, SCRATCH PAPER AND PEN

Here is your handbook, in case you need to refer to it.

Please remember that you are free to talk about anything as long as it does not violate the Code of Conduct.

One of the experimenters will let you know when there is one minute left and will tell you when the 30 minutes are up.

Please remember that if you will not be able to make your mentoring sessions or have any scheduling problems to please let us know by calling one of the numbers on this sheet.

PROVIDE CONTACT CARDS IF NEEDED

Please feel free to ask questions; if I am unable to answer your question at this moment I will be happy to get back to you with an answer during your next session.

Please remember that we will be videotaping each session. Please give me a few seconds once I have left the room to start the videotape before you start speaking with each other so that we can record the entire session.

START TIMER ON WATCH

START VIDEO TAPE

WHEN THERE IS ONE MINUTE LEFT ON TIMER, OPEN DOOR AND SAY "ONE MINUTE LEFT", THEN CLOSE THE DOOR

WHEN 30 MINUTES HAVE PASSED, OPEN THE DOOR AND SAY "OK, TIME'S UP. PLEASE SAY GOODBYE."

ONCE THEY HAVE SAID GOODBYE, STOP VIDEO RECORDER AND TAKE OUT THE VIDEO TAPE.

Thanks so much for coming. See you next week for your third session, same time, same place.

CHECK OFF EXPERIMENTAL SESSION COMPLETED ON VIDEOTAPE SPINE.
PUT VIDEO BACK IN LOCKBOX.

WRITE IN DATE THAT BOTH MENTOR AND PROTÉGÉ COMPLETED FIRST SESSION ON LABLE ON ENVELOPE

PREPARE FOR NEXT SESSION BY GATHERING MATERIALS.

SCRIPT FOR THIRD EXPERIMENTAL SESSION

GATHER FOLLOWING MATERIALS FOR SESSION:

- **MENTOR HANDBOOK**
- **SCRATCH PAPER**
- **PEN**
- **STOPWATCH**
- **VIDEOTAPE FOR THAT MENTOR**
- **2 CONTACT CARDS**

PUT VIDEO TAPE FOR SESSION IN VIDEO RECORDER.

ONCE MENTOR AND PROTÉGÉ ARE BOTH THERE, HAVE THEM SIT IN CHAIRS FACING EACH OTHER
SEAT MENTOR IN CHAIR FACING THE VIDEO CAMERA ALWAYS!!
MAKE SURE LAPEL MIKES ARE ON (CHECK LIGHT ON BOTH)

Hello, my name is _____.

I would like to thank you both again for agreeing to participate in our mentoring program. This is your third session.

GIVE MENTOR A HANDBOOK, SCRATCH PAPER AND PEN

Here is your handbook, in case you need to refer to it.

Please remember that you are free to talk about anything as long as it does not violate the Code of Conduct.

One of the experimenters will let you know when there is one minute left and will tell you when the 30 minutes are up.

Please remember that if you will not be able to make your mentoring sessions or have any scheduling problems to please let us know by calling one of the numbers on this sheet.

PROVIDE CONTACT CARDS IF NEEDED

Please feel free to ask questions; if I am unable to answer your question at this moment I will be happy to get back to you with an answer during your next session.

Please remember that we will be videotaping each session. Please give me a few seconds once I have left the room to start the videotape before you start speaking with each other so that we can record the entire session.

START TIMER ON WATCH

START VIDEO TAPE

WHEN THERE IS ONE MINUTE LEFT ON TIMER, OPEN DOOR AND SAY "ONE MINUTE LEFT", THEN CLOSE THE DOOR

WHEN 30 MINUTES HAVE PASSED, OPEN THE DOOR AND SAY "OK, TIME'S UP. PLEASE SAY GOODBYE."

ONCE THEY HAVE SAID GOODBYE, STOP VIDEO RECORDER AND TAKE OUT THE VIDEO TAPE.

Do you have any questions before we let you go?

Thanks so much for coming. After your final session next week, we will ask you to fill out some paperwork. See you next week for your final session, same time, same place.

CHECK OFF EXPERIMENTAL SESSION COMPLETED ON VIDEOTAPE SPINE.
PUT VIDEO BACK IN LOCKBOX.

WRITE IN DATE THAT BOTH MENTOR AND PROTÉGÉ COMPLETED FIRST SESSION ON LABEL ON ENVELOPE

PREPARE FOR NEXT SESSION BY GATHERING MATERIALS.

SCRIPT FOR FOURTH AND FINAL EXPERIMENTAL SESSION

GATHER FOLLOWING MATERIALS FOR SESSION:

- **MENTOR PAYMENT FORM**
- **PROTÉGÉ PAYMENT FORM**
- **TIME 2 MEASURES FOR MENTOR**
- **TIME 2 MEASURES FOR PROTÉGÉ**
- **ENVELOPE FOR PROTEGE**
- **MENTOR HANDBOOK**
- **SCRATCH PAPER**
- **PENS**
- **STOPWATCH**
- **VIDEOTAPE FOR THAT MENTOR**
- **2 CONTACT CARDS**

PUT VIDEO TAPE FOR SESSION IN VIDEO RECORDER.

ONCE MENTOR AND PROTÉGÉ ARE BOTH THERE, HAVE THEM SIT IN CHAIRS FACING EACH OTHER
SEAT MENTOR IN CHAIR FACING THE VIDEO CAMERA ALWAYS!!
MAKE SURE LAPEL MIKES ARE ON (CHECK LIGHT ON BOTH)

Hello, my name is _____.

I would like to thank you both again for agreeing to participate in our mentoring program. This is your final session. After your session today you will be filling out some paperwork. This should take no longer than 10 minutes.

GIVE MENTOR A HANDBOOK, SCRATCH PAPER, PEN

Here is your handbook, in case you need to refer to it.

Please remember that you are free to talk about anything as long as it does not violate the Code of Conduct.

One of the experimenters will let you know when there is one minute left and will tell you when the 30 minutes are up.

Please remember that if you will not be able to make your mentoring sessions or have any scheduling problems to please let us know by calling one of the numbers on this sheet.

PROVIDE CONTACT CARDS IF NEEDED

Please feel free to ask questions; if I am unable to answer your question at this moment I will be happy to get back to you with an answer during your next session.

Please give me a few seconds once I have left the room to start the videotape before you start speaking with each other so that we can record the entire session.

START TIMER ON WATCH

START VIDEOTAPE

WHEN THERE IS ONE MINUTE LEFT ON TIMER, OPEN DOOR AND SAY "ONE MINUTE LEFT", THEN CLOSE THE DOOR

WHEN 30 MINUTES HAVE PASSED, OPEN THE DOOR AND SAY "OK, TIME'S UP. PLEASE SAY GOODBYE."

ONCE THEY HAVE SAID GOODBYE, STOP VIDEO RECORDER AND TAKE OUT THE VIDEO TAPE.

GIVE MENTOR TIME 2 MEASURES AND PROTÉGÉ TIME 2 MEASURES AND PENS.

Please fill out these forms. When you are finished filling them out, please come out to the main room and see me.

While you are filling them out, I will be calculating your final payment invoice.

Please don't forget to check it and sign it before you leave.

You are free to exchange personal information with each other now if you like before you start to fill out the forms.

INDICATE DATE THAT THE MENTOR AND PROTÉGÉ FINISHED THEIR FOURTH SESSION. WHILE SUBJECTS ARE FILLING OUT MEASURES, ADD UP THEIR PAYMENT AND ROUND TO THE NEAREST WHOLE HOUR (E.G., 45 MINUTES = 1 HOUR), ADD BONUS, AND CALCULATE TOTAL. (TOTAL FOR EVERYONE SHOULD BE 5 HOURS = $40).

CHECK OFF EXPERIMENTAL SESSION COMPLETED ON VIDEOTAPE SPINE. PUT VIDEO BACK IN LOCKBOX.

HAVE PARTICIPANTS EACH SIGN PAYMENT FORM AND YOU SIGN THE FORM.

***HAVE PROTEGES ONLY WRITE THEIR ADDRESS ON THE ENVELOPE*. MENTORS DON'T NEED TO.**

READ LAST PORTION OF SCRIPT TO EACH OF THEM BEFORE THEY LEAVE

Thank you very much for participating in this study.

There were three objectives we hoped to achieve in this study:

- To assess what kind of benefits incoming freshmen would receive from being mentored
- To determine if thirty minutes for four weeks was enough time to achieve any benefits
- To observe the impact of mentor personality and motivation on mentoring outcomes

If you have any questions about this study please contact the following individuals:

Lizzette Lima
NAVAIR, Research Parkway, Orlando, Florida
407-380-4766
Lizzette_L@yahoo.com

Thank you again for your participation.

PUT PAYMENT FORMS BACK IN APPROPRIATE FOLDER.
PUT MEASURES IN ENVELOPE.
PREPARE FOR NEXT SESSION BY GATHERING MATERIALS.

Appendix K: Mentor Time 2 Measures

Exit Scale for Mentors

Please indicate on the scale from 1 - 5 the extent to which the following statements describe the relationship you had with your protégé.

	No Extent				Great Extent
1. I encouraged my protégé to try new ways of behaving in school.	1	2	3	4	5
2. My protégé tried to imitate my behavior in school.	1	2	3	4	5
3. My protégé agreed with my attitudes and values regarding education.	1	2	3	4	5
4. My protégé respected and admired me.	1	2	3	4	5
5. My protégé will try to be like me when he/she reaches a similar position in his/her academic career.	1	2	3	4	5
6. I demonstrated good listening skills in conversations with my protégé.	1	2	3	4	5
7. I discussed my protégé's questions or concerns regarding feelings of competence, commitment to academic advancement, relationships with peers or faculty, or work/family conflicts.	1	2	3	4	5
8. I shared personal experiences as alternative perspective to my protégé's problems.	1	2	3	4	5
9. I encouraged my protégé to talk openly about anxiety and fears that detract from his/her schoolwork.	1	2	3	4	5
10. I conveyed empathy for the concerns and feelings my protégé discussed with me.	1	2	3	4	5
11. I kept the feelings and doubts my protégé shared with me in strict confidence.	1	2	3	4	5
12. I conveyed feelings of respect for my protégé as an individual.	1	2	3	4	5

Please indicate on the scale from 1 - 5 the extent to which the following statements describe the relationship you had with your protégé.

	No Extent				Great Extent
1. I reduced unnecessary risks that could threaten the possibility of my protégé staying in school or making good grades.	1	2	3	4	5
2. I helped my protégé review assignments or meet deadlines that otherwise would be difficult to complete.	1	2	3	4	5
3. I suggested ways in which my protégé can meet other students or offered to help my protégé meet friends after the mentoring program was over.	1	2	3	4	5
4. I gave my protégé ideas for increasing contact with school administrators and faculty members.	1	2	3	4	5
5. I gave my protégé ideas for activities that will prepare him/her for an internship or job.	1	2	3	4	5
6. I gave my protégé ideas for activities that present opportunities to learn new skills.	1	2	3	4	5
7. I gave my protégé ideas for increasing contact with people who may judge my protégé's potential for future academic success.	1	2	3	4	5
8. I shared the history of my academic career with my protégé.	1	2	3	4	5
9. I encouraged my protégé to prepare for academic advancement.	1	2	3	4	5

Appendix L: Protégé Time 2 Measures

Exit scale for Protégés

Please indicate on the scale from 1 - 5 the extent to which the following statements describe the relationship you had with your mentor.

Extent	**Extent**	**No**				**Great**
1. My mentor encouraged me to try new ways of behaving in school.		1	2	3	4	5
2. I tried to imitate my mentor's behavior in school.		1	2	3	4	5
3. I agreed with my mentor's attitudes and values regarding education.		1	2	3	4	5
4. I respected and admired my mentor.		1	2	3	4	5
5. I will try to be like my mentor when I reach a similar position in my academic career.		1	2	3	4	5
6. My mentor demonstrated good listening skills in conversations with me.		1	2	3	4	5
7. My mentor discussed my questions or concerns regarding feelings of competence, commitment to academic advancement, relationships with peers or faculty, or work/family conflicts.		1	2	3	4	5
8. My mentor shared personal experiences as an alternative perspective to my problems.		1	2	3	4	5
9. My mentor encouraged me to talk openly about anxiety and fears that detract from my schoolwork.		1	2	3	4	5
10. My mentor conveyed empathy for the concerns and feelings I discussed with him/her.		1	2	3	4	5
11. My mentor kept the feelings and doubts I shared with him/her in strict confidence.		1	2	3	4	5
12. My mentor conveyed feelings of respect for me as an individual.		1	2	3	4	5

Please indicate on the scale from 1 - 5 the extent to which the following statements describe the relationship you had with your mentor.

	No Extent				Great Extent
1. My mentor reduced unnecessary risks that could threaten the possibility of me staying in school or making good grades.	1	2	3	4	5
2. My mentor helped me review assignments or meet deadlines that otherwise would be difficult to complete.	1	2	3	4	5
3. My mentor suggested ways in which I can meet other students or offered to help me meet friends after the mentoring program was over.	1	2	3	4	5
4. My mentor gave me ideas for increasing contact with school administrators and faculty members.	1	2	3	4	5
5. My mentor gave me ideas for activities that will prepare me for an internship or job.	1	2	3	4	5
6. My mentor gave me ideas for activities that present opportunities to learn new skills.	1	2	3	4	5
7. My mentor gave me ideas for increasing contact with people who may judge my potential for future academic success.	1	2	3	4	5
8. My mentor shared the history of his/her academic career with me.	1	2	3	4	5
9. My mentor encouraged me to prepare for academic advancement.	1	2	3	4	5

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					**Strongly Agree**
1. My schoolwork this semester had a negative impact on my health.	1	2	3	4	5	6
2. I have been under a great deal of tension this semester.	1	2	3	4	5	6
3. Problems with school have kept me awake at night this semester.	1	2	3	4	5	6

There are many physical symptoms associated with stress. During the past thirty days, how many times did you experience each of the following symptoms?

1. An upset stomach or nausea	None	1	2	3	4	More than four
2. A backache	None	1	2	3	4	More than four
3. Trouble sleeping	None	1	2	3	4	More than four
4. A skin rash	None	1	2	3	4	More than four
5. Shortness of breath	None	1	2	3	4	More than four
6. Chest pain	None	1	2	3	4	More than four
7. Headache	None	1	2	3	4	More than four
8. Fever	None	1	2	3	4	More than four
9. Acid indigestion or heartburn	None	1	2	3	4	More than four
10. Eye strain	None	1	2	3	4	More than four
11. Diarrhea	None	1	2	3	4	More than four
12. Stomach cramps (not menstrual)	None	1	2	3	4	More than four
13. Constipation	None	1	2	3	4	More than four
14. Heart pounding when not exercising	None	1	2	3	4	More than four
15. An infection	None	1	2	3	4	More than four
16. Loss of appetite	None	1	2	3	4	More than four
17. Dizziness	None	1	2	3	4	More than four
18. Tiredness or fatigue	None	1	2	3	4	More than four

How confident are you that you could successfully complete the following tasks?

	Not at all Confident					**Extremely Confident**
1. Research a term paper.	1	2	3	4	5	6
2. Write course papers.	1	2	3	4	5	6
3. Do well on your exams.	1	2	3	4	5	6
4. Take good class notes.	1	2	3	4	5	6
5. Keep up to date with your schoolwork.	1	2	3	4	5	6
6. Manage time effectively.	1	2	3	4	5	6
7. Understand your textbooks.	1	2	3	4	5	6
8. Participate in class discussions.	1	2	3	4	5	6
9. Ask a question in class.	1	2	3	4	5	6
10. Get a date when you want one.	1	2	3	4	5	6
11. Talk to your professors.	1	2	3	4	5	6
12. Talk to university staff.	1	2	3	4	5	6
13. Ask a professor a question.	1	2	3	4	5	6
14. Make new friends at college.	1	2	3	4	5	6
15. Join a student organization.	1	2	3	4	5	6

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					**Strongly Agree**
1. I would like to continue the relationship with my mentor.	1	2	3	4	5	6
2. I hope I get to spend time with my mentor again, even though the experiment is over.	1	2	3	4	5	6
3. I am not interested in trying to continue a relationship with my mentor.	1	2	3	4	5	6
4. My mentor and I have developed a relationship that will continue beyond this experiment.	1	2	3	4	5	6

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					**Strongly Agree**
1. The mentoring relationship between my mentor and I was very effective.	1	2	3	4	5	6
2. I am very satisfied with the mentoring relationship that developed between my mentor and I.	1	2	3	4	5	6
3. I effectively utilized my mentor.	1	2	3	4	5	6
4. My mentor and I enjoyed a high-quality relationship.	1	2	3	4	5	6
5. Both my mentor and I benefited from the mentoring relationship.	1	2	3	4	5	6
6. I was extremely satisfied with my assigned mentor.	1	2	3	4	5	6

Appendix M: Additional Measures

Please indicate on the scale from 1 - 7 your level of agreement or disagreement with the following statements.

	Strongly Disagree						Strongly Agree
1. When I make plans, I am certain I can make them work.	1	2	3	4	5	6	7
2. One of my problems is that I cannot get down to work when I should.	1	2	3	4	5	6	7
3. If I can't do a job the first time, I keep trying until I can.	1	2	3	4	5	6	7
4. When I set important goals for myself, I rarely achieve them.	1	2	3	4	5	6	7
5. I give up on things before completing them.	1	2	3	4	5	6	7
6. I avoid facing difficulties.	1	2	3	4	5	6	7
7. If something looks too complicated, I will not even bother to try it.	1	2	3	4	5	6	7
8. When I have something unpleasant to do, I stick to it until I finish it.	1	2	3	4	5	6	7
9. When I decide to do something, I go right to work on it.	1	2	3	4	5	6	7
10. When trying to learn something new, I soon give up if I am not initially successful.	1	2	3	4	5	6	7
11. When unexpected problems occur, I don't handle them well.	1	2	3	4	5	6	7
12. I avoid trying to learn new things when they look too difficult for me.	1	2	3	4	5	6	7
13. Failure just makes me try harder.	1	2	3	4	5	6	7
14. I feel insecure about my ability to do things.	1	2	3	4	5	6	7
15. I am a self-reliant person.	1	2	3	4	5	6	7
16. I give up easily.	1	2	3	4	5	6	7
17. I do not seem capable of dealing with most problems that come up in life.	1	2	3	4	5	6	7
18. It is difficult for me to make new friends.	1	2	3	4	5	6	7
19. If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.	1	2	3	4	5	6	7
20. If I meet someone interesting who is hard to make friends with, I'll soon stop trying to make friends with that person.	1	2	3	4	5	6	7
21. When I'm trying to become friends with someone who seems uninterested at first, I don't give up easily.	1	2	3	4	5	6	7

22. I do not handle myself well in social gatherings.	1	2	3	4	5	6	7
23. I have acquired my friends through my personal abilities at making friends.	1	2	3	4	5	6	7

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					Strongly Agree
1. In discussions, I go along with the will of the group.	1	2	3	4	5	6
2. I would avoid a job which required me to supervise other people.	1	2	3	4	5	6
3. I nearly always argue for my viewpoint if I think I am right.	1	2	3	4	5	6
4. I am usually the one who initiates activities in my group.	1	2	3	4	5	6
5. When an acquaintance takes advantage of me, I confront him or her.	1	2	3	4	5	6
6. When I meet new people, I usually have little to say.	1	2	3	4	5	6
7. I find it easy to talk with all kinds of people.	1	2	3	4	5	6
8. It is uncomfortable for me to exchange a purchase I found to be defective.	1	2	3	4	5	6
9. I let others take the lead when I am on a committee.	1	2	3	4	5	6
10. It is easy for me to make "small talk" with people I have just met.	1	2	3	4	5	6
11. I try to dress like the other people I work or go to school with.	1	2	3	4	5	6
12. If I have been "short-changed," I go back and complain.	1	2	3	4	5	6
13. In an emergency, I get people organized and take charge.	1	2	3	4	5	6
14. It is difficult for me to start a conversation with a stranger.	1	2	3	4	5	6
15. I defend my point of view even if someone in authority disagrees with me.	1	2	3	4	5	6
16. When a friend borrows something of value to me and returns it damaged, I don't say anything.	1	2	3	4	5	6
17. My opinions are not easily changed by those around me.	1	2	3	4	5	6
18. I follow my own ideas even when pressured by a group to change them.	1	2	3	4	5	6
19. I work best in a group when I am the person in charge.	1	2	3	4	5	6

	Strongly Disagree					Strongly Agree
20. At a party, I find it easy to introduce myself and join a conversation.	1	2	3	4	5	6
21. I have no particular desire to be the leader of a group.	1	2	3	4	5	6
22. I find it difficult to make new friends.	1	2	3	4	5	6
23. I shy away from situations where I might be asked to take charge.	1	2	3	4	5	6
24. When I am attracted to a person I have not met, I actively try to get acquainted.	1	2	3	4	5	6
25. If a friend betrays a confidence, I express my annoyance to him or her.	1	2	3	4	5	6
26. When someone interrupts me in a serious conversation, I find it hard to ask him or her to wait a minute.	1	2	3	4	5	6
27. If the food I am served in a restaurant is unsatisfactory, I would complain to the waiter.	1	2	3	4	5	6
28. I seek positions where I can influence others.	1	2	3	4	5	6
29. I feel uncomfortable around people I don't know.	1	2	3	4	5	6
30. When there is a disagreement, I accept the decision of the majority.	1	2	3	4	5	6
31. When someone repeatedly kicks the back of my chair in a theater, I don't say anything.	1	2	3	4	5	6

Please indicate on the scale from 1 – 6 your level of agreement or disagreement with the following statements, as they relate to your protégé.

	Strongly Disagree					Strongly Agree
1. I would like to continue the relationship with my protégé.	1	2	3	4	5	6
2. I hope I get to spend time with my protégé again, even though the experiment is over.	1	2	3	4	5	6
3. I am not interested in trying to continue a relationship with my protégé.	1	2	3	4	5	6
4. My protégé and I have developed a relationship that will continue beyond this experiment.	1	2	3	4	5	6

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements, as they relate to your protégé.

	Strongly Disagree					**Strongly Agree**
1. The mentoring relationship between my protégé and I was very effective.	1	2	3	4	5	6
2. I am very satisfied with the mentoring relationship that developed between my protégé and I.	1	2	3	4	5	6
3. I was effectively utilized as a mentor by my protégé.	1	2	3	4	5	6
4. My protégé and I enjoyed a high-quality relationship.	1	2	3	4	5	6
5. Both my protégé and I benefited from the mentoring relationship.	1	2	3	4	5	6

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements, as they relate to your protégé.

	Strongly Disagree					**Strongly Agree**
1. My protégé and I viewed things in much the same way.	1	2	3	4	5	6
2. My protégé and I were similar in terms of our outlook, perspective, and values.	1	2	3	4	5	6
3. My protégé and I were alike in a number of areas.	1	2	3	4	5	6
4. My protégé and I thought alike in terms of coming up with a similar solution for a problem.	1	2	3	4	5	6
5. My protégé and I analyzed problems in a similar way.	1	2	3	4	5	6

How confident do you feel your protégé is regarding their ability to successfully complete the following tasks?

	Not at all Confident					**Extremely Confident**
1. Research a term paper.	1	2	3	4	5	6
2. Write course papers.	1	2	3	4	5	6
3. Do well on your exams.	1	2	3	4	5	6
4. Take good class notes.	1	2	3	4	5	6
5. Keep up to date with your schoolwork.	1	2	3	4	5	6
6. Manage time effectively.	1	2	3	4	5	6
7. Understand your textbooks.	1	2	3	4	5	6
8. Participate in class discussions.	1	2	3	4	5	6
9. Ask a question in class.	1	2	3	4	5	6
10. Get a date when you want one.	1	2	3	4	5	6
11. Talk to your professors.	1	2	3	4	5	6
12. Talk to university staff.	1	2	3	4	5	6
13. Ask a professor a question.	1	2	3	4	5	6
14. Make new friends at college.	1	2	3	4	5	6
15. Join a student organization.	1	2	3	4	5	6

Please indicate on the scale from 1 - 6 your level of agreement or disagreement with the following statements.

	Strongly Disagree					**Strongly Agree**
1. My mentor and I viewed things in much the same way.	1	2	3	4	5	6
2. My mentor and I were similar in terms of our outlook, perspective, and values.	1	2	3	4	5	6
3. My mentor and I are alike in a number of areas.	1	2	3	4	5	6
4. My mentor and I thought alike in terms of coming up with a similar solution to a problem.	1	2	3	4	5	6
5. My mentor and I analyzed problems in a similar way.	1	2	3	4	5	6

Appendix N: Mentoring Coding Scheme

MENTORING CODING SCHEME

PSYCHOSOCIAL FUNCTIONS – extent to which the mentor provides coaching, counseling, acceptance and confirmation, and serves as a role model to the protégé

COUNSELING - mentor acts as a sounding board for protégé to discuss personal concerns, offers personal experience as an alternative perspective, and helps resolve problems through feedback and active listening

- Mentor demonstrated good listening skills in conversations with protégé
- Mentor discussed the protégé's questions or concerns regarding feelings of competence in school, commitment to advancement in school, relationships with peers (other students) and professors, or school/family conflicts
- Mentor shared personal experiences as an alternative perspective to protégé's problems
- Mentor encouraged protégé to talk openly about anxiety and fears that detract from schoolwork
- Mentor conveyed empathy for the concerns and feelings the protégé discussed with him/her

ACCEPTANCE AND CONFIRMATION – mentor provides support and encouragement to protégé

- Mentor encouraged protégé to try new ways of behaving in school (e.g., new study habits, new ways of organizing time)
- Mentor conveyed feelings of respect for the protégé as an individual (e.g., treated protégé as an equal)

ROLE MODELING – mentor's attitudes, values, and behavior provide model for protégé; mentor sets a desirable example and protégé identifies with it

- Protégé tried to imitate the academic-related behavior of the mentor (i.e., mirrored the same activities, joined the same organizations)
- Protégé agreed with mentor's attitudes and values regarding education
- Protégé respected and admired mentor
- Protégé indicated that they would like to be like their mentor when they reach a similar position in their academic career

CAREER DEVELOPMENT FUNCTIONS – those aspects of the mentoring relationship related to the protégé's academic career and which enhance academic advancement (e.g., protection, exposure and visibility, sponsorship, and challenging assignments)

<u>COACHING</u> – enhances protégé's knowledge and understanding of how to navigate effectively in the academic domain; mentor suggests specific strategies for accomplishing school objectives, for achieving academic recognition, for achieving academic aspirations

- Mentor shared history of his or her academic career (e.g., told protégé courses he/she took, professors he/she liked, how he/she chose a major)
- Mentor encouraged protégé to prepare for academic success (e.g., told protégé he/she should study, attend all classes, etc.)

<u>PROTECTION</u> – mentor protects protégé from unnecessary risk

- Mentor reduced unnecessary risks that could threaten the possibility of the protégé staying in school or making good grades (e.g., told protégé to attend class, take good notes, avoid certain professors, not to work too many hours, not to take part in too many extracurricular activities)
- Mentor helped protégé review assignments or meet deadlines for coursework

<u>EXPOSURE AND VISIBILITY</u> – mentor suggests ways to meet other students/faculty

- Mentor suggested ways in which the protégé could meet other students or offered to help the protégé meet friends after the mentoring program was over
- Mentor gave the protégé ideas for increasing contact with school administrators and faculty members
- Mentor gave the protégé ideas for increasing contact with people who may judge his/her potential for future academic success

<u>SPONSORSHIP</u> – mentor offered to support and sponsor the protégé in some way

- Mentor gave the protégé ideas for activities that would help the protégé develop employment skills
- Mentor offered to introduce protégé to people who could help his/her academic success
- Mentor offered to introduce protégé to influential people in the academic community

Directions: Please rate each mentoring session on the extent to which the mentor provided the following mentoring functions on the scale from 1 –5. Please circle the number.

COUNSELING - mentor acts as a sounding board for protégé to discuss personal concerns, offers personal experience as an alternative perspective, and helps resolve problems through feedback and active listening

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not demonstrate good listening skills in conversations with the protégé Mentor did not discuss the protégé's questions or concerns regarding feelings of competence in school, commitment to advancement in school, relationships with peers (other students) and professors, or school/family conflicts Mentor did not share personal experiences as an alternative perspective to the protégé's problems Mentor did not encourage the protégé to talk openly about anxiety and fears that detract from schoolwork Mentor did not convey empathy for the concerns and feelings the protégé discussed with him/her		Sometimes the mentor demonstrated good listening skills in conversations with the protégé Sometimes the mentor discussed the protégé's questions or concerns regarding feelings of competence in school, commitment to advancement in school, relationships with peers (other students) and professors, or school/family conflicts Sometimes the mentor shared personal experiences as an alternative perspective to the protégé's problems Sometimes the mentor encouraged the protégé to talk openly about anxiety and fears that detract from schoolwork Sometimes the mentor conveyed empathy for the concerns and feelings the protégé discussed with him/her		Mentor frequently demonstrated good listening skills in conversations with the protégé Mentor frequently discussed the protégé's questions or concerns regarding feelings of competence in school, commitment to advancement in school, relationships with peers (other students) and professors, or school/family conflicts Mentor frequently shared personal experiences as an alternative perspective to the protégé's problems Mentor frequently encouraged the protégé to talk openly about anxiety and fears that detract from schoolwork Mentor frequently conveyed empathy for the concerns and feelings the protégé discussed with him/her

<u>ACCEPTANCE AND CONFIRMATION</u> – mentor provides support and encouragement to protégé

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not encourage the protégé to try new ways of behaving in school (e.g., new study habits, new ways of organizing time) Mentor did not convey feelings of respect for the protégé as an individual (e.g., treated protégé as an equal)		Sometimes the mentor encouraged the protégé to try new ways of behaving in school (e.g., new study habits, new ways of organizing time) Sometimes the mentor conveyed feelings of respect for the protégé as an individual (e.g., treated protégé as an equal)		Mentor frequently encouraged the protégé to try new ways of behaving in school (e.g., new study habits, new ways of organizing time) Mentor frequently conveyed feelings of respect for the protégé as an individual (e.g., treated protégé as an equal)

<u>ROLE MODELING</u> – mentor's attitudes, values, and behavior provide model for protégé; mentor sets a desirable example and protégé identifies with it

1 Not at all	2	3 Sometimes	4	5 Frequently
Protégé did not try to imitate the academic-related behavior of the mentor (i.e., mirrored the same activities, joined the same organizations) Protégé did not agree with the mentor's attitudes and values regarding education Protégé did not respect and admire the mentor Protégé did not indicate that they would like to be like their mentor when they reach a similar position in their academic career		Sometimes the protégé tried to imitate the academic-related behavior of the mentor (i.e., mirrored the same activities, joined the same organizations) Sometimes the protégé agreed with the mentor's attitudes and values regarding education Sometimes the protégé respected and admired the mentor Sometimes the protégé indicated that they would like to be like their mentor when they reach a similar position in their academic career		Protégé frequently tried to imitate the academic-related behavior of the mentor (i.e., mirrored the same activities, joined the same organizations) Protégé frequently agreed with the mentor's attitudes and values regarding education Protégé frequently respected and admired the mentor Protégé frequently indicated that they would like to be like their mentor when they reach a similar position in their academic career

<u>COACHING</u> - enhances protégé's knowledge and understanding of how to navigate effectively in the academic domain; mentor suggests specific strategies for accomplishing school objectives, for achieving academic recognition, for achieving academic aspirations

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not share history of his or her academic career (e.g., told protégé courses he/she took, professors he/she liked, how he/she chose a major) Mentor did not encourage protégé to prepare for academic success (e.g., told protégé he/she should study, attend all classes, etc.)		Sometimes the mentor shared the history of his or her academic career with the protégé (e.g., told protégé courses he/she took, professors he/she liked, how he/she chose a major) Sometimes the mentor encouraged the protégé to prepare for academic success (e.g., told protégé he/she should study, attend all classes, etc.)		Mentor frequently shared history of his or her academic career (e.g., told protégé courses he/she took, professors he/she liked, how he/she chose a major) Mentor frequently encouraged protégé to prepare for academic success (e.g., told protégé he/she should study, attend all classes, etc.)

PROTECTION – mentor protects protégé from unnecessary risk

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not reduce unnecessary risks that could threaten the possibility of the protégé staying in school or making good grades (e.g., told protégé to attend class, take good notes, avoid certain professors, not to work too many hours, not to take part in too many extracurricular activities) Mentor did not help the protégé review assignments or meet deadlines for coursework		Sometimes the mentor reduced unnecessary risks that could threaten the possibility of the protégé staying in school or making good grades (e.g., told protégé to attend class, take good notes, avoid certain professors, not to work too many hours, not to take part in too many extracurricular activities) Sometimes the mentor helped the protégé review assignments or meet deadlines for coursework		Mentor frequently reduced unnecessary risks that could threaten the possibility of the protégé staying in school or making good grades (e.g., told protégé to attend class, take good notes, avoid certain professors, not to work too many hours, not to take part in too many extracurricular activities) Mentor frequently helped the protégé review assignments or meet deadlines for coursework

<u>EXPOSURE AND VISIBILITY</u> – mentor suggests ways to meet other students/faculty

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not suggest ways in which the protégé could meet other students or offer to help the protégé meet friends after the mentoring program was over Mentor did not give the protégé ideas for increasing contact with school administrators and faculty members Mentor did not give the protégé ideas for increasing contact with people who may judge his/her potential for future academic success		Sometimes the mentor suggested ways in which the protégé could meet other students or offered to help the protégé meet friends after the mentoring program was over Sometimes the mentor gave the protégé ideas for increasing contact with school administrators and faculty members Sometimes the mentor gave the protégé ideas for increasing contact with people who may judge his/her potential for future academic success		The mentor frequently suggested ways in which the protégé could meet other students or offered to help the protégé meet friends after the mentoring program was over The mentor frequently gave the protégé ideas for increasing contact with school administrators and faculty members The mentor frequently gave the protégé ideas for increasing contact with people who may judge his/her potential for future academic success

<u>SPONSORSHIP</u> – mentor offered to support and sponsor the protégé in some way

1 Not at all	2	3 Sometimes	4	5 Frequently
Mentor did not give the protégé ideas for activities that would help the protégé develop employment skills Mentor did not offer to introduce the protégé to people who could help his/her academic success Mentor did not offer to introduce the protégé to influential people in the academic community		Sometimes the mentor gave the protégé ideas for activities that would help the protégé develop employment skills Sometimes the mentor offered to introduce the protégé to people who could help his/her academic success Sometimes the mentor offered to introduce protégé to influential people in the academic community		Mentor frequently gave the protégé ideas for activities that would help the protégé develop employment skills Mentor frequently offered to introduce the protégé to people who could help his/her academic success Mentor frequently offered to introduce the protégé to influential people in the academic community

About the Author

Lizzette Lima received a Bachelor's degree from Florida Atlantic University in Psychology in 1996. She graduated from Florida International University in 2000, where she was awarded a Master's degree in Industrial/Organizational Psychology. She worked at the City of Miami in the Testing and Validation and Compensation Divisions while she was attending FIU.

In 2000, Lizzette was accepted into the Ph.D. program in Industrial/Organizational Psychology at the University of South Florida. While attending the University of South Florida, she worked as a Research/Teaching Assistant for one year. In addition, she worked for NAWCTSD in Orlando where she conducted research in mentoring and collected data for her dissertation.