

Spring 2010

The differences of personality traits and competitive tendencies between female collegiate athletes and females majoring in professional competitive fields

Terra Upham
Fort Hays State University

Follow this and additional works at: <https://scholars.fhsu.edu/theses>

 Part of the [Rehabilitation and Therapy Commons](#), and the [Sports Sciences Commons](#)

Recommended Citation

Upham, Terra, "The differences of personality traits and competitive tendencies between female collegiate athletes and females majoring in professional competitive fields" (2010). *Master's Theses*. 184.
<https://scholars.fhsu.edu/theses/184>

This Thesis is brought to you for free and open access by the Graduate School at FHSU Scholars Repository. It has been accepted for inclusion in Master's Theses by an authorized administrator of FHSU Scholars Repository.

The Differences of Personality Traits and Competitive
Tendencies between Female Collegiate Athletes
and Females Majoring in Professional
Competitive Fields

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Terra Upham

B.S., Fort Hays State University

Date _____

Approved _____
Major Professor

Approved _____
Chair, Graduate Council

Thesis Committee Approval

The Thesis Committee of Terra Upham hereby approves of her thesis as meeting partial fulfillment of the requirements for the Degree of Master of Science.

Approved _____
Dr. Duane Shepherd
Chair, Thesis Committee

Approved _____
Dr. Janett Naylor
Committee Member

Approved _____
Dr. Jeff Burnett
Committee Member

Approved _____
Dr. Lynn Maska
Committee Member

Approved _____
Dr. Steve Sedbrook
Committee Member

Date _____

Abstract

The purpose of this investigation was to compare the differences between collegiate female athletes to females majoring in professional competitive fields to (1) specific personality factors, (2) levels of competitiveness, and (3) differences in competitive levels with regard to classification year.

Methods included discriminating the Big Five personality traits and competitive tendencies to ascertain if personality and competitiveness measures differed between, 23 female collegiate athletes and 27 female majors in traditionally competitive professions. Participants ranged from ages 18 through 43. Participants self-reported their individual demographics, personality traits, and levels of competitiveness through survey tests. The personality traits of extraversion, agreeableness, conscientiousness, neuroticism, and openness were measured using the Big Five Inventory (BFI). Levels of competitiveness were measured by the Hypercompetitive Attitude Scale (HCA). Grouping for collegiate female athletes and female degree seeking competitive majors with regard to classification year was ascertained by implementing a demographic questionnaire.

Independent t-tests and a one-way Analysis of Variance (ANOVA) was utilized to measure if significant differences were evident between collegiate female athletes and female degree seeking majors in professional competitive fields on the BFI personality traits, the HCA on competitiveness tendencies, and competitiveness regarding classification year.

Results found no significant differences at the 0.05 level in the selected personality traits between the two groups under examination. The results of the HCA

indicated a significant difference ($M = 3.16$ for the female athletes, $M = 2.62$ for females majoring in professional competitive fields). Female collegiate athletes were found to be significantly more competitive than the females majoring in professional competitive fields ($p = 0.00$). The results among the combined groups showed no significant difference existed between the participants with regard to classification year. Further research is needed to establish a greater understanding of the hypercompetitive tendencies between the two groups.

Acknowledgments

I would like to take the time to thank some very influential people in my life that have helped and guided me through this research process. First and foremost, I thank Dr. Duane Shepherd, who with his extraordinary instruction and his ability to bring laughter to some of the most daunting days allowed me to achieve my finest work. To all my committee members, it could not have been without all your belief, faith, and encouragement in me that I could have completed this milestone. In addition, I want to thank all faculty and staff in the Health and Human Performance Department for always having a helping hand and a welcoming smile.

I want to extend my appreciation and thanks to my friends. It was you individuals that made me who I am today, and gave me the motivation to achieve my goal of completing a master's degree. To my family, especially my father, mother, and brother who from a young age instilled upon me the mindset that I could achieve anything and who have always been my biggest supporters. It is your work ethic, desire, aspiration for life, and the positive you bring from every hardship that inspires me daily. For that I am eternally grateful. To all the special individuals whom I have had the pleasure of crossing paths with it was our experiences that shaped the person I continue to strive to be.

Table of Contents

	Page
Thesis Committee Approval	i
Abstract	ii
Acknowledgments.....	iv
Table of Contents.....	v
List of Tables	viii
List of Figures.....	ix
List of Appendixes.....	x
Chapter 1	1
Introduction	1
Statement of the Purpose	6
Statement of the Problem	7
Research Question	7
Research Hypothesis	8
Definition of Terms	8
Conceptual definitions	8
Operational definitions	10
Delimitations	11
Limitations	11
Assumptions	12
Significance of the Study	13

Chapter 2	15
Review of Literature	15
Personality research using measures of personality	16
Competitiveness levels	19
Competitive research using measures of competitiveness	21
Motivation levels	22
Summary	24
Chapter 3	26
Methodology	26
Selection of participants	26
Instrumentation	26
<i>Big Five Inventory</i>	27
<i>Hypercompetitive Attitude Scale</i>	27
Instrument validity	28
<i>Big Five Inventory</i>	28
<i>Hypercompetitive Attitude Scale</i>	28
Instrument reliability	28
<i>Big Five Inventory</i>	29
<i>Hypercompetitive Attitude Scale</i>	29
Preliminary procedures	29
Operational procedures	29
Research design	30

Data analysis	31
Chapter 4	32
Results and Discussion	32
Results	32
<i>Group statistics for personality traits</i>	35
<i>Hypothesis 1</i>	38
<i>Group statistics for competitiveness</i>	38
<i>Hypothesis 2</i>	41
<i>Group statistics for classification level</i>	41
<i>Hypothesis 3</i>	42
Discussion	42
Chapter 5	46
Summary, Conclusions, and Recommendations	46
Summary	46
<i>Female collegiate athletes</i>	47
<i>Females majoring in professional competitive fields</i>	47
Group	47
Conclusions	48
Recommendations for further study	48
References.....	50
Appendixes	54

List of Tables

Table		Page
1	<i>Demographic Information for Female Collegiate Athletes and Females Majoring in Professional Competitive Fields</i>	34
2	<i>Descriptive Statistics for Groups in Regards to the Five Specific Personality Traits</i>	36
3	<i>Independent T-Test: Comparison of Female Collegiate Athletes and Females Majoring in Professional Competitive Fields on the Five Specific Personality Traits</i>	38
4	<i>Descriptive Statistics for Groups in Regards to Competitiveness</i>	39
5	<i>Independent T-Test: Comparison of Female Collegiate Athletes and Females Majoring in Professional Competitive Fields on Competitiveness</i>	41
6	<i>One-way ANOVA: Comparing Classification Year on Competitiveness</i>	42

List of Figures

Figure		Page
1	Graphic comparison of personality trait means and standard deviations between female collegiate athletes (group 1) and females majoring in professional competitive fields (group 2)	37
2	Graphic comparison of competitiveness means and standard deviations between female collegiate athletes (group 1) and females majoring in professional competitive fields (group 2)	40

List of Appendixes

Appendix	Page
A Demographic Profile Survey.....	55
B Big Five Inventory	57
C Hypercompetitive Attitude Scale.....	60
D Informed Consent.....	63

Chapter 1

Introduction

The NCAA encompasses over 360,000 athletes at 1,263 universities in the United States (Reiter, Liput, & Nirmal, 2007). With such a huge number of athletes, it is crucial to understand certain personality traits associated with them. A multitude of personality factors exists in the genetic make-up of these collegiate athletes. The individual's differences of athletes in terms of competitiveness and motivation levels are apparent in a study conducted by Ryska (2003). It found that collegiate athletes who are highly motivated also seem to be highly competitive and vice versa. These athletes also acquired traits of neuroticism and extraversion. However, little research has been conducted on comparing female collegiate athlete's personality traits to another female population. Since the implementation of Title IX, a Federal Law requiring the American society to recognize a woman's right to participate in sports on a plane equal to that of men, there has been a significant increase in women's collegiate athletic participation. Women's collegiate athletic participation has increased from 15% in 1972 to 43% in 2001. The average number of teams offered for females per college/university in 2004 was 8.32, up from 2.50 per school in 1972 (Bell, 2007). The influx of women majoring in professional competitive fields that has historically been male dominated has also shown a significant increase in the last decade. Therefore, the comparison of these two populations is essential in understanding why and the degree to which women's personality traits have evolved throughout recent years.

Prior to Title IX, activities for women were made up of informal rules and were partaken in for play rather than sport. It was not a highly organized discipline that ended

having a winner and loser. The activities emphasized physical activity rather than the extent of competition. The early 1900's was a paramount time for women and athletics. Women began to establish clubs that were athletic in nature and began to form groups that fought for women's rights. The 1950's and 1960's were times of change as seen by the embryonic viewpoints of Americans. The push for Civil Rights, and the passage of the Civil Rights Act of 1964 helped increase the status of women and minorities. Competitive events began to increase and women continued to move closer to their goals of equality. It was not until the culmination of Title IX encompassed in the Education Amendments of 1972 did women truly begin to see compliance from colleges and universities (Bell, 2007).

Now almost four decades after the implementation of Title IX the impacts are beginning to be noticed in the evolving personality traits and competitive propensity of women. Girls and women are beginning to see themselves as strong, efficient, competitive, and skilled athletes. Researcher Lopiano (2000) found that "in fact, their peer groups now assign high status to the role of female athlete and families are fully encouraging of girls' sports participation" (p. 164). It was also found that women who are active in sports feel greater confidence, are extraverts possessing higher self-esteem, and pride in their physical and social selves. The research further noted that female student-athletes graduate from college at a significantly higher rate (68%) than female students in general (58%) and collegiate female athletes experience higher-than-average levels of self-esteem and less depression which is linked to lower levels of neuroticism (Lopiano, 2000).

Due to the strong federal laws outlawing gender discrimination in colleges and universities and in open collegiate athletics, American society is experiencing the first generation of mothers and fathers who fully accept and entirely support their daughters' participation in athletics (Lopiano, 2000). Nevertheless, with this said the passing of Title IX may have significantly increased the number of women collegiate athletes who are beginning to be seen as competitive in nature and accepted by their fathers and mothers. However, gender stereotypes and organizational variation in the hiring of women is still a major issue in professional competitive fields as seen by female collegiate students trying to enter these fields (Gorman, 2005).

The challenges of both these constructs lie within the personality traits and competitive tendencies of women in relation to their male counterparts. The understanding of what drives women to adhere to the many hindrances set upon them by the male dominated society we live in will allow us to see the larger trends embedded in women's lives. The reality is that we still live in a competitive male dominated world with many double standards and many so called "expectations" of women and their roles outside of athletics. That any woman trying to succeed in a professional competitive major that has historically been male dominated is seen immediately as an inferior opponent. The fundamental development of women in careers may not be different from men but it is considerable more complicated due to the societal barriers imposed by the social contexts and the double standards of both new and old stereotypes that coexist (O'Neil, Hopkins, & Bilimoria, 2008). Women will continually be pressured to meet this double standard and submit to the subtle messages of American opinions. With this said

female collegiate students trying to overcome these harsh hindrances and female collegiate athletes trying to take advantage of Title IX of the Education Amendments must encompass continuing evolving personality traits that allow them to endure the abundance of societal changes and barriers surrounding them in their contexts of life.

Women majoring in a variety of professional competitive fields such as; psychology, business, biology, or law is on the rise on college campuses. These professional competitive fields, once known as male-dominated, are beginning to see a drastic increase of women entering professional paths in each of these disciplines. Deciding on a career is a key developmental task for women. This decision may be influenced by the specific personality traits as we now see women expanding to majoring in significantly different professional fields. By understanding why women choose the career paths they do today from the perspective of personality is key for one important reason. It is essential to know how much of the variation in career decidedness can be explained by personality so we can examine the reasons these collegiate female students choose the professional competitive paths that they do (Lounsbury, Hutchens, & Loveland, 2005). Braden (1995) further added that this acquired knowledge of the personality traits associated with career decidedness among collegiate students can help counselors and professors to accommodate personality differences in ways that will benefit students according to their specific traits. We must first understand what specific traits these female collegiate students acquire in order to accommodate their specific personality differences.

With increasingly more females entering professional competitive fields that historically have been male dominated, we are beginning to see some similarities in the traits associated with these collegiate female students. These females are seen to show high levels of competitiveness when it comes to trying to overcome male dominance. In addition, female business majors are ascertained to be more highly motivated to achieve career aspirations than their male colleagues and strive for perfectionism at a higher rate than others in the business professional field (George, Marshall, Hoemann, & Minkevich, 1972).

One factor that was seen to influence the levels of competitiveness in both female collegiate students and female collegiate athletes was the academic classification. From the standpoint of the athletes collegiate year of eligibility, the older and more experienced athletes seemed not as fearful of failing in competition as younger ones (Heitman, Vicory, Kovaleski, Pugh, & Norell, 2006). One can conclude that experience will lower the fear of failure, which will ultimately lower levels of competitiveness. From the standpoint of female collegiate students several differences were found between college freshmen and college sophomores majoring in the competitive business field. For college freshman they tended to have higher achievement, intraception, dominance, and endurance needs and lower affiliation, and nurturance needs than college sophomores. College sophomores tended to feel a greater need to form friendships with others and have greater social needs (George et al., 1972). Competitiveness levels were also seen to be positively related to general competition in collegiate student's personality dimensions

of conscientiousness, openness, and extraversion; whereas, neuroticism, was negatively related to general competition (Yan-yuan & Man-na, 2007).

Understanding the changes in society and the array of variables associated with specific personality traits that cause the levels to fluctuate and change is crucial in the understanding of the personality make-up of female collegiate athletes and females majoring in professional competitive fields. Female collegiate athletes and females majoring in professional competitive fields are going to vary in these traits though we must have an understanding of why and be able to compare these two populations and correlate the results to further enhance the understanding in this area. With gaining knowledge in this area of research practitioners can design and evaluate programs that will allow for the best results from these populations to be used in their everyday life skill performances.

Statement of the Purpose

The purpose of this investigation was to examine female collegiate athletes and female degree seeking majors in professional competitive fields at Fort Hays State University to (1) determine if a difference exists between collegiate female athletes and females majoring in professional competitive fields on specific personality factors, (2) determine if different competitiveness levels exists between female collegiate athletes and female majors in professional competitive fields, and (3) determine if a difference exists among the combined group of female collegiate athletes and degree seeking females regarding classification year on levels of competitiveness.

Statement of the Problem

Since the advent of Title IX participation and opportunities in competitive athletics has grown exponentially. Research indicated that a majority of women now participating in collegiate athletics and those seeking major degrees in professional competitive fields has also expanded. The research literature has also indicated that certain personality traits and competitive characteristics are found in women who are now engaging in these activities. Regarding previous findings concerning this phenomenon of American society, it is important to study and understand the implications of personality traits and competitive characteristics regarding the expansion of women's participation in competitive athletics and increasing entrance into competitive professions.

Research Question

It was the intent of this investigation to examine and compare the independent variables of personality, using the measurement of selected personality traits, and competitive levels between female collegiate athletes and females seeking degrees in professional competitive fields.

1. Is there a significant difference in the five personality traits under investigation, extraversion, agreeableness, conscientiousness, neuroticism, and openness between (1) female collegiate athletes and (2) female majors in professional competitive fields?
2. Is there a significant difference in competitive levels between (1) female collegiate athletes and (2) female majors in professional competitive fields?

3. Is there a significant difference in competitive levels with regard to classification year among the combined group of female collegiate athletes and female majors in professional competitive fields?

Research Hypothesis

The following null hypotheses were tested at the 0.05 level of significance.

1. There will not be a significant difference in the five personality traits under investigation, extraversion, agreeableness, conscientiousness, neuroticism, and openness between (1) female collegiate athletes and (2) female majors in professional competitive fields.
2. There will not be a significant difference in competitive levels between (1) female collegiate athletes and (2) female majors in professional competitive fields.
3. There will not be a significant difference in competitive levels with regard to classification year among the combined group of female collegiate athletes and female majors in professional competitive fields.

Definition of Terms

The following definition of terms were established for the implementation of this investigation and used throughout and within the scope of this investigation. For the purposes of the investigation, terms were classified as being conceptual or operational.

Conceptual definitions. Those terms classified as conceptual were those defined by experts generally accepted in the disciplines of health, exercise science, and psychology.

Agreeableness. A personality trait defined as an individual who strongly possesses the characteristics of appreciative, forgiving, generous, kind, sympathetic, and trusting (McCrae & John, 1992).

Big Five Inventory (BFI). A questionnaire designed to compare five dimensions that represent personality at the broadest level of abstraction, and each dimension summarizes a large number of distinct, more specific personality characteristics. The five dimensions include extraversion, agreeableness, conscientiousness, emotional stability versus neuroticism, and openness (Pervin & John, 1999).

Competitiveness. Defined as the desire to win at all costs and do better than others in all interpersonal situations and their enjoyment in these interpersonal situations (Griffin-Pierson, 1990). *Or* Achievement motive or component of achievement motivation that involves interpersonal and/or goal strivings for excellence (Griffin-Pierson, 1990).

Conscientiousness. A personality trait defined as an individual who strongly possesses the characteristics of efficient, organized, planful, reliable, dutiful, responsible, and thorough (McCrae & John, 1992).

Extraversion. A personality trait defined as an individual who strongly possesses the characteristics of assertive, energetic, enthusiastic, outgoing, and talkative (McCrae & John, 1992).

Hypercompetitive Attitude Scale (HCA). A questionnaire designed to compare individuals' need to compete and win (avoid losing) at any cost as a means of

maintaining or enhancing feelings of self worth (Ryckman, Hammer, Kaczor, & Gold, 1990).

Openness. A personality trait defined as an individual who is artistic, curious, imaginative, insightful, original, and of wide interests (McCrae & John, 1992).

Neuroticism. A personality trait defined as an individual who strongly possesses the characteristics of anxious, self-pitying, tense, touchy, unstable, and worrying (McCrae & John, 1992).

Operational definitions. Those terms defined as operational were those defined concepts that were used and defined specifically for the purpose of this research investigation.

Classification year. A female individual who was classified as a freshman, sophomore, junior, or senior depending on their accumulated undergraduate hours.

Female collegiate athlete. A female individual who is currently a member of one of Fort Hays State University's female athletic teams.

Female collegiate student. A female individual who has never participated in collegiate athletics and is currently enrolled in undergraduate courses at Fort Hays State University in professional competitive fields.

Professional competitive field. A field once thought to be traditionally male dominated and historically required high levels of academic excellence and enhanced professional preparation and experience (i.e. psychology, business, biology, or law).

Delimitations

The proposed investigation was delimited to:

1. This investigation was delimited to the number of female collegiate athletes that participated ($n = 23$).
2. This investigation was delimited to the number of female collegiate students that participated ($n = 27$).
3. This investigation was delimited to a sample from the population being taken from Fort Hays State University female athletic teams.
4. This investigation was delimited to a sample from the population being taken from Fort Hays State University women majoring in competitive professional fields.
5. This investigation was delimited to the HCA, in regards to the measurements of competitiveness levels.
6. This investigation was delimited to the BFI questionnaire, in regards to the measurement of extraversion, agreeableness, conscientiousness, neuroticism, and openness.

Limitations

The proposed investigation was limited by the following:

1. This investigation was limited by participants categorized into two female categories: female collegiate athletes and females majoring in professional competitive fields. Participants were placed in one group based on

information gathered in the demographic survey but did not account for other purposes of study.

2. This investigation's specific results were limited by the population and setting of Fort Hays State University in Hays, Kansas.
3. This investigation was limited by team sports.
4. This investigation was limited by a small sample size and could not be an adequate number to provide generalization across the two specific populations.
5. This investigation was limited by subjects self-reporting answers on the methods and instruments of surveys. Participants were instructed to answer questions in a manner that reflected the participants' self beliefs of one's established perception of their own competitiveness levels and personality traits. The setting of the study or the events of the day could have influenced the results.

Assumptions

This investigation was based on the following assumptions:

1. It was assumed participants understood the self-assessment questions and recorded accurate, truthful, and honest answers according to their personal-belief.
2. It was assumed the personality and competitive measures reflected a general, not daily, self-perception.
3. It was assumed all participants took their own individual surveys.

4. It was assumed the instruments of surveys (HCA and BFI) were valid and reliable.

Significance of the Study

The phenomena concerning the personality profiles of athletes have long been of interest. However, the conceptualization of investigating and comparing the differences between competitiveness levels and specific personality traits in female collegiate athletes to female collegiate students has garnered little research. In particular, it was evident when trying to find the significant differences between these two groups in relation to the Big Five personality traits. By being able to assess and understand what influences female collegiate athletes and degree seeking female collegiate students to differ in these personality traits will allow us as educators to find ways to maximize their competitiveness levels to be applied to other areas of life, not just athletics or academically. It will also help the understanding of why personality traits and competitive tendencies are changing and evolving over time. Is it strictly due to societal barriers and the changes our society adept to over time? To recognize the variables and personality traits measured by the Big Five personality scale associated with competitiveness that brings out different levels will help to benefit individuals when attaining goals, and the perception and understanding of their own personal orientation that may be applied in different areas of their lives (Reiter et al., 2007).

Conversely, one must realize that it is nearly impossible to fully understand all the causes that influence these personality traits from individual to individual. But by beginning to gain understanding through research in this area we will pave the way for

future researchers to add credibility to the theories presented in this study. This may one day allow us to fully understand the influence of personality traits and competitive tendencies of female collegiate athletes to another population in ways to benefit them in performance of life skills.

Chapter 2

Review of Literature

Two separate disciplines were reviewed in order to present a history and theoretical basis for the investigation. These disciplines were personality research using measures of personality and competitiveness levels with research using measures of competitiveness. In addition, a section on motivation was included as motivation has been recognized as a primary influence on both personality traits and competitiveness. The purpose of this investigation was to compare the differences between female collegiate athletes and collegiate females majoring in professional competitive fields on specific personality traits and competitive tendencies. This specific issue of research had until recently received little recognition. Both female collegiate athletes and non-athletes have been studied separately on specific personality traits a multitude of times. However, research in the evolving characteristics and subsequent comparison and the interaction of these two samples has been meager. From the few studies that have examined these two samples on a scientific scale, researchers have found several distinct differences. These distinct differences along with a further look at the specific personality traits examined in this study were the main areas of concern. The review of related literature was organized and presented in the following distinct sections: (a) personality research using measures of personality, (b) competitiveness levels, (c) competitive research using measures of competitiveness, (d) motivation levels, and (e) a summary of the history of literature presented in the chapter. To explore these areas of interest textbooks, referred journals, and scientific databases were used.

Personality research using measures of personality. High school years and the beginning years of college are marked as a time when relatively stable personality traits emerge (Lounsbury et al., 2005). Personality is often examined as various elemental constructs and is related to “traits” rather than “types.” The conceptualization that personality is an easily understood discipline is under the notion of false pretenses. Personality is a very difficult item to define and then measure and monitor. As societal barriers continue to evolve and affect specific traits of female individuals, the full comprehension of personality is far from understood. However, researchers McCrae and Costa (2003) attempted to create instruments that provided accurate readings of an individual’s specific traits. These instruments attempted to break down an individual’s personality into five concise facets. Investigations studying personality make-up of persons tend to rely on the heavily supported Five-Factor Model (FFM) test. The FFM also had a very reliable reputation in both self-reports and ratings. This was seen as one of the strongest arguments in favor of this model.

The FFM was ascribed to being the most universal personality test available. The adjective (descriptor) words were formed from natural language and were categorized into five main personality types that can be found in all these different cultures; specifically the English, Dutch, German, and Japanese cultures. The five facets were extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience.

Extraversion was associated with being assertive, energetic, enthusiastic, outgoing, sociable, fun-loving, affectionate, friendly, and talkative. Agreeableness was one of the broader facets of the FFM, it was the less understood than both the

extraversion and neuroticism facets. Agreeableness was seen as including the variables of nurturance, emotional support, friendly compliance, and trust.

Another facet of the FFM was conscientiousness. Conscientiousness was associated with the will to achieve, dutifulness, and holding impulsiveness in check. Also an individual, who possesses the characteristics of efficiency, organized, planful, reliable and responsible. Each collegiate individual encompasses specific combinations unique to them. These different combinations between each individual provided different results in personality measures (McCrae & John, 1992).

Neuroticism was seen as having the least amount of disparity. It is defined as anxious, self-pitying, tense, touchy, unstable, and worrying. Also, variables of insecurity and being self-conscious were often associated with neuroticism. Neuroticism was also viewed as negative emotionality; such as anxiety, depression, anger, and embarrassment. Researchers McCrae and Costa (1987) have connected neuroticism with impulsive behaviors such as tendencies to over eat, smoke, or drink excessively. Individuals high in neuroticism have more difficulty coping appropriately in certain situations and may often display disruptive emotions.

The last personality facet of the FFM was openness. Openness was best characterized as an individual who was artistic, curious, imaginative, insightful, original, of wide interests, intelligence, (not IQ intelligence) and daring. Openness was also seen as one of the facets that is very difficult to be expressed in single adjectives, as seen in the FFM. However, measures of openness give higher validity coefficients than do

adjective-factor measures with a .57 correlation between the self reported Neuroticism, Extraversion, Openness scale (NEO) and the peer-rated NEO scale.

A modern version of the NEO Five-Factor Inventory (NEO-FFI) test that measures the five facets was the NEO Personality Inventory-Revised (NEO-PI-R). This test was found to have a firm basis for researchers to focus on all the personalities in the FFM (McCrae & John, 1992). To address the need for a shorter instrument of the NEO measuring the prototypical components of the FFM, the BFI was created.

John, Donahue, and Kentle constructed the BFI (John & Srivastava, 1999). The 44-item, likert scale BFI, was developed with the goals in mind to create a brief inventory that would allow efficient and flexible assessment of the five facets when there was a need for more differentiated measurement of individual facets. As Burisch (1984) observed, “Short scales not only saves testing time, but also avoid subject boredom and fatigue...there are subjects...from whom you won’t get any response if the test looks too long” (p. 219). The BFI used short phrases based on the trait adjectives known to be prototypical markers of the Big Five (John & Srivastava, 1999). It has been found that in the U.S. and Canadian samples, the alpha reliabilities of the BFI scales typically range from .75 to .90 and average above .80. Validity evidence includes substantial convergent and divergent relationships with other Big Five instruments as well as with peer ratings. While the NEO questionnaires were the best-validated measures of the FFM, the BFI had a high validity with the NEO of a .73 and a reliability of .93 and provides a shorter test time for participants.

The use of the BFI has become a prominent test for the measurement of specific personality traits. Many studies have verified the factor structure and validity of the Big Five Personality constructs of extraversion, agreeableness, conscientiousness, neuroticism, and openness in a wide array of cultures, demographic groups, and research settings. From a study conducted by Lounsbury et al. (2005) it was found that career decidedness among collegiate students was positively related to conscientiousness and agreeableness and negatively related to neuroticism. The high validity and reliability of the BFI, along with the administrative efficiency makes it easier to understand by using less complex adjectives. Using these protocols the BFI was selected to provide a suitable instrument for this investigation.

Competitiveness levels. The multitude and range of individual differences in entity traits is conceptually never ending. This investigation focused on the specific trait of competitiveness. Competitiveness as defined by Griffin-Pierson (1990) is the desire to win and do better than others in all interpersonal situations and their enjoyment in these interpersonal situations. Athletic status, goal attainment, and age were all variables that have been found to affect levels of competitiveness.

Competitiveness measured from an athletic status has received the most research. With more females becoming involved with the sports scene the interest level in this area has seen considerable increase. Yet, very little research has been done on the personality preferences of the general population. Even fewer studies have been done examining these traits and implementing differences among groups into scientific studies. The competitiveness levels examined from an athletic standpoint was found to be much

higher than those of non-athletes (Ryska, 2003). This study goes on to conclude that athletes in competitive situations were less likely to show sportsmanship and more motivated to win at all costs. Another research study conducted by Reiter et al. (2007) contradicted Ryska's (2003) findings concluding there was not a significant difference between athletes and non-athletes in competitive situations and the desire to win at all costs was not the mentality of these samples. Rather, research indicated the "avoidance of failure" was a main motivator of competitive participation and activity. However, many findings were inconclusive; consequently resulting in the need for further research.

Another variable also found to affect competitiveness was goal-attainment.

Competition tended to enhance performance and rise in level with regard to the perceived difficulty of goals. The more difficult the goal was to achieve the increase in competitive levels. On the other hand, it worked both ways, the more competitive you were the more rigorous goals you set (Hinsz, 2005). This was found to be true in both athletes striving to meet goals in their individual performance or students trying to achieve a certain grade on an exam. Further research by Hinsz (2005), found that competitive drives increased when combined with goals, whereas other researchers found no significant effect with the relation of goals to competitiveness (Allscheid, & Cellar, 1996; Lerner & Locke, 1995).

The variable of age was also frequently linked to competitiveness levels. Many studies have found parallels between populations and distinct differences in competitive tendencies. The older the athletes the less competitive they tended to be. This has been linked to burn out, less motivation, and an attitude of nothing left to prove. Collegiate non-athletes are seen at the opposite side of the spectrum when looking at age and

competitiveness. The older the collegiate students the more competitive they tended to be in their coursework, academic goals, and in their career goals. This has been linked to the desire to further their degree and enter a professional career, perform at a higher level than male counterparts, and to be able to add more substance to their resume upon graduation (Amrose & Horn, 2000).

Competitive research using measures of competitiveness. The paradigm of competitiveness has been distinctly defined and researched, along with its relation to other paradigms, by psychologists for more than a century, (Houston, McIntire, Kinnie, & Terry, 2002). Competitiveness has traced back to the early work of Triplett, who investigated notions such as competitive instincts, mental attitude during performance, and an intense desire to win. Later researchers furthered earlier investigations and looked at competitiveness with regards to goal relationships as opposed to the more mental, instinctual concepts expounded by the early researchers (Houston et al., 2002). Because of the variety of definitions and attributes associated with competitiveness it makes it even more crucial to take a closer examination of the link between competitiveness and specific personality traits.

The development of questionnaires as a method to measure levels of competitiveness is a relatively new notion arising in the last couple of decades. Many studies have begun to use surveys as their methods and for that reason the internal validity of surveys is vital. This investigation wanted to explore competitiveness in relation to the mentality of winning at all costs (avoid losing) and across several different social contexts including school, games and sports. The assessment of this dimension and

these social contexts were formulated in the HCA and thus, was chosen for this investigation.

A study conducted by Houston et al. (2002) examined the validity of the HCA. The researchers reported an internal consistency reliability of .91 for the HCA. Several other studies have used the HCA as a means of measuring competitiveness levels and individual differences in sport achievement orientation. In the construction of the HCA researchers consisting of Ryckman et al. (1990) ran two studies to determine the construct validity of the scale. They found the scale to provide strong evidence for both construct and convergent validity. Further research indicated the HCA provided acceptable levels of reliability.

With the history of the construct of competitiveness a plethora of research has indicated that competitiveness indeed is a multidimensional paradigm. Utilizing an inappropriate measure of competitiveness could lead to erroneous conclusions that may predisposition future research. More research is needed to narrow this construct to a more complete and precise definition to avoid problems that lead to flawed conclusions (Houston et al., 2002).

Motivation levels. Dianne Gill and her colleagues established motivation as a multidimensional trait with mastery, work, and competitiveness dimensions (Gill, 1988; Gill & Deeter, 1988). Competitive behavior was often considered to be a balance between the motivation levels of success, failure, and mastery. As a result the desire to engage in competitive situations often required a certain level of motivation. Therefore, a motivation trait was seen as an antecedent to competitiveness and was researched to see

the influence motivation in fact has on competitiveness. Motivation was seen from the perspective of internal and/or external forces that produce the initiation, intensity, and persistence of behavior (Tenenbaum & Eklund, 2007). Motivation has been found to be influenced by many different variables including but not limited to; collegiate year of eligibility (age) and athletic identity.

Athletes who were older and more experienced tended to be less motivated because they were less avoidant to failure, which in turn lowered their competitiveness levels. A study completed by Amrose & Horn (2000) and further extended by research of Heitman, et al. (2006) compared not only an athlete's collegiate year of eligibility but also linked scholarship status to motivation levels. Both studies indicated that scholarship athletes reported higher levels of intrinsic motivation than non scholarship athletes and general women collegiate students (Amrose & Horn, 2000).

Another variable seen as an influential motivator that increased levels of competitiveness was an athlete's identity and how they perceived themselves. Tusak, Faganel, & Bednarik (2005) proposed that there was a connection between the perception of athletes regarding their ability and an athlete's personality. These researchers did find connections between athletic identity and the motivational characteristics of athletes. Athletic identity was considered to be connected with the dimensions of win orientation, with competitiveness, and positive competitive orientation. Research concluded there are significant correlations between personality, motivational characteristics, and athletic identity in athletes (Tusak et al., 2005). Conversely, with all the significant findings made in this study, research is still scarce in the area of athletic identity, motivation, and

competitiveness. This will be of interest when expanded to look at women collegiate student's motivation levels and how they are linked with competitiveness.

Summary. Being able to understand the differences in personality traits between collegiate female athletes and females in professional competitive fields will allow coaches and educators to adjust their coaching and teaching styles. This will accommodate and allow the design of programs enhancing these specific traits and needs of individuals. With society continuously evolving it is important to understand to what degree that women's change in their personality facets in relation to competitiveness or because of the present societal impediments. Personality plays a dynamic factor when important things are at stake. The facets of personality are commonly measured through the BFI and represent a well-respected test for determining personality traits (Pervin & John, 1999). Therefore, the BFI was used for the purpose of this investigation.

The HCA was used in this investigation due to the fact it has a high convergent validity with other instruments of competitiveness across the athletic and academic environments. These two contexts were the main concern in this investigation and therefore, the HCA was a proper instrument for the investigation. In regards to competitiveness, variables of athletic status, athletic identity, and age were all examined but further research must be done to find if these variables directly cause the fluctuation of competitiveness levels.

Accumulating and analyzing data from female collegiate athletes and females in professional competitive fields will help explain the affects of personality traits and competitiveness between these populations. This in turn will aid society and individuals

to adjust in a way that will benefit them the most in life outcomes across many social contexts, such as; academic performance, vocational choice, athletics, job performance, and overall satisfaction (Morris & Summers, 2004). This research will enable individuals to realize the influence personality factors and competitive tendencies have on individual achievement, goal attainment, and contentment. The implications of women becoming a part of more male-dominated professional competitive fields and the increasing acceptance of female collegiate athletes will inadvertently influence the overall personality traits, competitive tendencies, and trends of individual women.

Chapter 3

Methodology

The focus of this investigation was to examine female individuals who engage in collegiate athletics and females who are pursuing professional degrees in traditionally male dominated fields at Fort Hays State University (FHSU) to (1) determine if a difference exists between the two groups on selected personality traits, (2) investigate if a difference exists between the groups with regard to competitiveness and (3) ascertain if a difference exists between classification level on competitiveness levels among all the participants under test. The methods utilized in this investigation are described in this chapter. The following are discussed and have included methodology for (a) selection of participants, (b) instrumentation, (c) instrument validity, (d) instrument reliability, (e) general procedures (preliminary and operational) (f) research design, and (g) data analysis.

Selection of participants. Participants were volunteers ranging from ages 18-43. Fifty participants ($n = 23$ female collegiate athletes and $n = 27$ females in professional competitive fields) volunteered from FHSU Athletics and selected undergraduate courses. Participants completed the BFI, the HCA, and a demographic profile survey designed for the purpose of this investigation. Only those participants that met the predetermined definition of female collegiate athletes and females in professional competitive fields were accepted for data analysis in this investigation.

Instrumentation. A basic demographic profile survey was created and developed for obtaining demographic information for the purpose of distinguishing a participant as a collegiate female athlete, a female in professional competitive fields, and for

classification level (freshman, sophomore, junior, or senior) in this investigation (see Appendix A).

Big Five Inventory. The BFI personality test was administered to all participants (see Appendix B). The inventory was designed around the concept of the FFM of Personality. Pervin & John, (1999) contend the NEO questionnaires are the best-validated measures of the FFM and provides for a shorter test time for completion by the participants. The BFI has a strong convergence in validity with the NEO and is known to be easier to understand for the participant and reduces problems with participant carelessness while answering questions (Pervin & John, 1999). The factors of high validity, time efficiency in completion, and less complex questions of the BFI provided a proper instrument for this investigation.

The BFI consists of a 44-item likert scale questionnaire from 1 (disagree strongly) to 5 (agree strongly) that takes the typical participant 5-10 minutes to complete. The instrument's purpose was to assess the primary personality traits of the female collegiate athletes and the females in professional competitive fields. The test was administered as a self-assessment of one's characteristics and behaviors.

Hypercompetitive Attitude Scale. The HCA was selected to measure competitive tendencies and attributes among participants (see Appendix C). In particular, the assessment of competitiveness across several different constructs (Ryckman et al., 1990). Women have only recently been recognized for their competitive attributes both in athletics and entrance into professional competitive fields (once male dominated).

The HCA consist of a 26-item likert scale questionnaire from 1 (never true of me) to 5 (always true of me) and was administered to the participants in this investigation. This instrument was designed to measure an individual's desire to compete or win at all costs. Horney (1937) noted that competitiveness is inherent in American culture and was thought to be a means of enhancing self-worth, manipulating others for self-gain, and demonstrating aggression in a variety of situations both athletic and of a social construct. She further stated that hypercompetitive individuals are high in neuroticism and low in self-esteem.

Instrument validity. The validity coefficients for each of the testing instruments used in this investigation are reported below.

Big Five Inventory. The convergent validity coefficient for the BFI with other Big Five instruments is 0.75. A higher validity of 0.90 was found for the three personality traits of neuroticism, extraversion, and openness among the Big Five instruments (Pervin & John, 1999).

Hypercompetitive Attitude Scale. As attitude (competitiveness) is a construct, validity for the HCA was established by Ryckman et al. (1990), using techniques to measure convergent validity. The validity measure for the HCA was established correlating convergent validity with the Win-at-any-cost Sports Competition Scale $r(68) = .24, p < .05$ and the Competitive-Cooperative Attitude Scale $r(47) = p < .001$.

Instrument reliability. The reliability coefficients for each of the testing instruments used in this investigation are reported below.

Big Five Inventory. Over a three-month test-retest research investigation, the BFI was found to have a reliability range from 0.80 to 0.90, with a mean of 0.85 (Pervin & John, 1999).

Hypercompetitive Attitude Scale. Using a sample of 101 subjects an acceptable measure of reliability was ascertained for the HCA. Test-retest reliability was established as satisfactory, $r(99) = .81, p < .001$ (Ryckman et al., 1990).

Preliminary procedures. The investigation was conducted on the FHSU campus in Cunningham Hall educational classrooms for the collegiate female athletes and in various classrooms across campus for the females in professional competitive fields. Selection of various classes for females in professionally competitive fields was based on the instructor's approval. The classroom setting was utilized for all administration of tests for the investigation.

Operational procedures. Participants were informed of the intent of the investigation and asked to sign a consent form to allow the information provided to be used in data analysis and reporting (See Appendix D). Prospective participants were informed that participation was voluntary and they had the right to withdraw at any time. Questions and inquiries were welcomed and answered. Upon consent by reading and signing the form, participants were administered a test packet that included the Demographic Profile Survey, the BFI, and the HCA. At the beginning of the testing session, instructions for all three tests were provided orally. The participants were instructed to read each of the test's directions thoroughly, answer each question honestly,

and answer each question with the understanding that answers reflect their personality and competitive tendencies.

Individual participants were allotted the amount of time they needed to complete the questionnaires. It was expected that each participant would need approximately 30 minutes for completion of each data collection packet. These times were approximate measures from previous research. Upon completion of all three testing instruments, the data was collected in a manila envelope, participants were fully debriefed, and the participants were released.

Tests were number coded for each participant. Number codes remained consistent to the participant for all tests administered. The data from the Demographic Profile Survey determined the participants that met the pre-determined qualifications concerning grouping for the investigation. All participants that did not meet the demographic standards were excluded from the investigation. The data was analyzed by using Independent t-tests and a one-way Analysis of Variance (ANOVA). The .05 level of significance was utilized for data analysis. The group data was additionally analyzed for further research to reveal the strength of the relationship between groups and the reported personality traits and hypercompetitive attitudes.

Research design. The investigation was conducted using survey testing procedures. Survey procedures, using the Demographic Profile Survey, classified participants into two separate groups, female collegiate athletes and females majoring in professional competitive fields. Those individuals who proved to have once been a collegiate athlete that weren't presently were excluded from data analysis. The

participants completed a survey on personality traits, using the BFI, and on competitive tendencies, using the HCA. Independent t-tests and a one-way ANOVA were implemented to reveal the statistical significance between the two groups on personality traits and competitive tendencies.

Data analysis. The data acquired through implementation of the three survey instruments used in this investigation was collected by hand and prepared for computer assisted analysis. The Predictive Analysis Software (PASW, 17) was utilized to calculate both descriptive and quantitative statistics with reference to the prevalence of specified personality traits and perception of competitive tendencies. For the purpose of this investigation the alpha level was set at $p \leq 0.05$.

Chapter 4

Results and Discussion

The purpose of this investigation was to compare the differences between collegiate female athletes to females majoring in professional competitive fields on specific personality traits and competitive tendencies, and (1) determine if a difference exists between the two groups on selected personality traits, (2) investigate if a difference exists between the groups with regard to competitiveness, and (3) ascertain if a difference exists between classification level among all participants under examination. The investigation focused on 50 Fort Hays State University (FHSU) female collegiate athletes ($n = 23$) and females majoring in professional competitive fields ($n = 27$). Participants ranged from ages 18-43 and voluntarily agreed to participate in this investigation. All participants in this investigation for group one were current female collegiate team athletes and for group two were currently enrolled in undergraduate coursework in competitive professional fields at FHSU. Descriptive and quantitative data were acquired for participants using survey procedures and analyzed using Independent t-tests and a one-way ANOVA to determine differences between group personality characteristics and competitiveness.

Results. This study sought to determine if there was a difference between personality traits and levels of competitiveness between the two groups being studied and if classification level/grade would prove a significant difference with regard to competitive tendencies among all participants under examination. Data were collected from the participants on six dependent variables: extraversion, agreeableness,

conscientiousness, neuroticism, openness and competitiveness. In addition, descriptive data (i.e. age, athletic status, classification year, & area of professional study) was obtained from each participant to eliminate grouping biases and to obtain information for future study into differences concerning the affect of age rather than classification year between and within the two groups.

Grouping data from the demographic profile survey represented self-reported information from each participant regarding classification level. For the purpose of this investigation females reported themselves as freshman, sophomore, junior, or senior based on collegiate hours completed. Personality type was another area of interest and participants self-reported their perception as to whether they were (type a) or (type b) personality. Regarding competitiveness levels, participants were asked to self-report their perception of themselves as competitive (yes) or not competitive (no). Motivation levels were also self-reported in regards to their perception of themselves as motivated (yes) or not motivated (no). The following are the number of participants in each personality type, competitiveness level, and motivation for the following groups, female collegiate athletes ($n = 23$) and females in professional competitive fields ($n = 27$). Refer to Table 1.

Table 1

Demographic Information for Female Collegiate Athletes and Females Majoring in Professional Competitive Fields

	Group 1		Group 2	
	<i>n</i>	%	<i>n</i>	%
College classification				
Freshman	7	30.40	3	11.10
Sophomore	6	26.10	7	25.90
Junior	7	30.40	8	29.60
Senior	3	13.00	9	33.30
Personality Type				
Type A	11	47.80	11	40.70
Type B	12	52.20	16	59.30
Competitiveness				
Yes	23	100.00	22	81.50
No	0	0.00	5	18.50
Motivation				
Yes	23	100.00	27	100.00
No	0	0.00	0	0.00

Note. Classification level, personality type, competitiveness, and motivation are self-rated responses. Participants circled (personality Type A or B, competitiveness yes or no, and motivation yes or no). Group 1 is referred to as female collegiate athletes and group 2 is referred to as females majoring in professional competitive fields.

Group statistics for personality traits. The group means and standard deviations for extraversion, agreeableness, conscientiousness, neuroticism, and openness, for group one female collegiate athletes ($n = 23$) and for group two females majoring in professional competitive fields ($n = 27$) are presented. The following is a narrative of the statistical analysis of the personality traits under test. The measure of extraversion indicated a group1 mean of 3.60 and a group 2 mean of 3.44 with a difference of 0.16. Agreeableness revealed a group1 mean of 4.06 and a group 2 mean of 4.12, a difference of 0.06. With regard to conscientiousness, the mean of group 1 was 3.89 and group 2 was 3.93 with a difference of 0.04. Neuroticism indicated an group 1 mean of 2.91 and a group 2 mean of 2.80, a difference of 0.11; and openness means were 3.27 for group 1 and 3.63 for group 2, a difference of 0.36 (see Table 2 and Figure 1).

Table 2

Descriptive Statistics for Groups in Regards to the Five Specific Personality Traits

	Group	<i>n</i>	<i>M</i>	<i>SD</i>
Extraversion	1	23	3.60	0.72
	2	27	3.44	0.54
Agreeableness	1	23	4.06	0.47
	2	27	4.12	0.47
Conscientiousness	1	23	3.89	0.46
	2	27	3.93	0.65
Neuroticism	1	23	2.91	0.63
	2	27	2.80	0.73
Openness	1	23	3.27	0.59
	2	27	3.63	0.75

Note. Group 1 is referred to as female collegiate athletes and group 2 is referred to as females majoring in professional competitive fields.

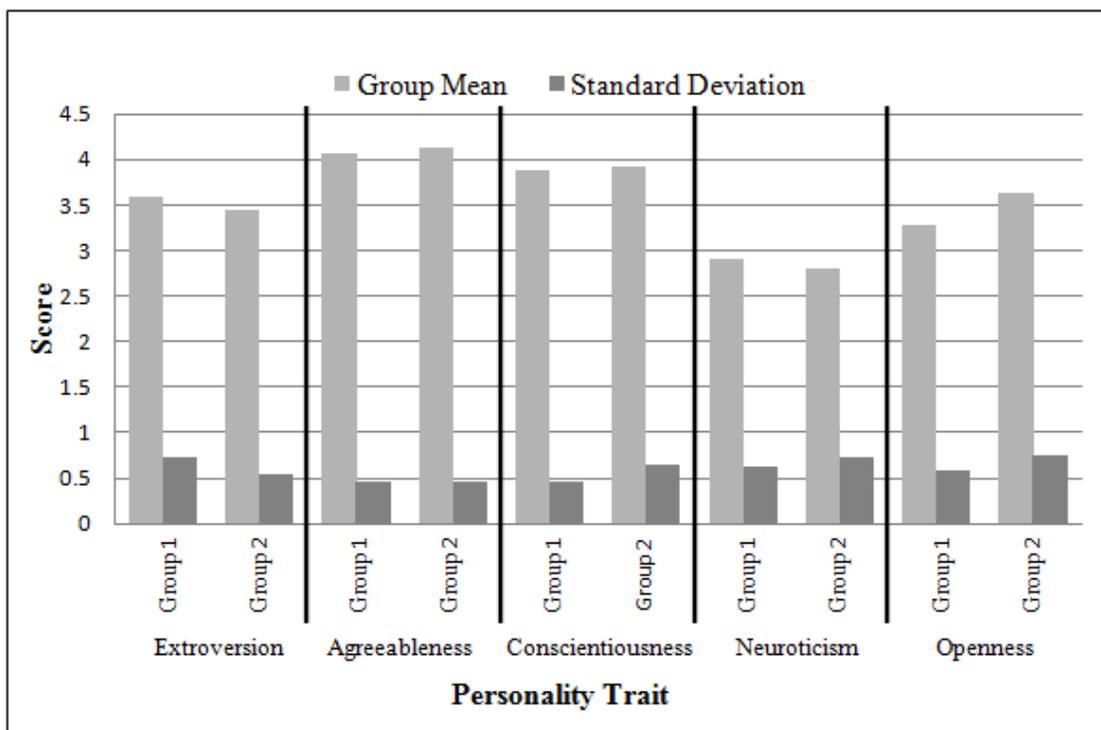


Figure 1. Graphic comparison of personality trait means and standard deviations between female collegiate athletes (group 1) and females majoring in professional competitive fields (group 2).

Table 3

Independent T-Test: Comparison of Female Collegiate Athletes and Females Majoring in Professional Competitive Fields on the Five Specific Personality Traits

	T-test for Equality of Means		
	<i>t</i>	<i>df</i>	<i>p</i>
Extraversion	0.83	48	0.41
Agreeableness	-0.46	48	0.65
Conscientiousness	-0.23	48	0.82
Neuroticism	0.60	48	0.55
Openness	-1.91	48	0.06

* $p < .05$

Hypothesis 1. No significant difference was found between female collegiate athletes and females majoring in competitive professional fields on the five specific personality traits measured. As a result, the null hypothesis was retained: extraversion $t(48) = .83$, $p > .05$; agreeableness $t(48) = -.46$, $p > .05$; conscientiousness $t(48) = -.23$, $p > .05$; neuroticism $t(48) = .60$, $p > .05$; and openness $t(48) = -1.91$, $p > .05$ (See Table 3).

Group statistics for competitiveness. Table 4 represents group means and standard deviations for the groups regarding competitiveness. Means for group 1 were 3.16 and group 2 was 2.62 with a difference of 0.54 (see Table 4).

Table 4

Descriptive Statistics for Groups in Regards to Competitiveness

	Group	<i>n</i>	<i>M</i>	<i>SD</i>
Competitiveness	1	23	3.16	0.45
	2	27	2.62	0.50

Note. Group 1 refers to female collegiate athletes and group 2 refers to females majoring in professional competitive fields.

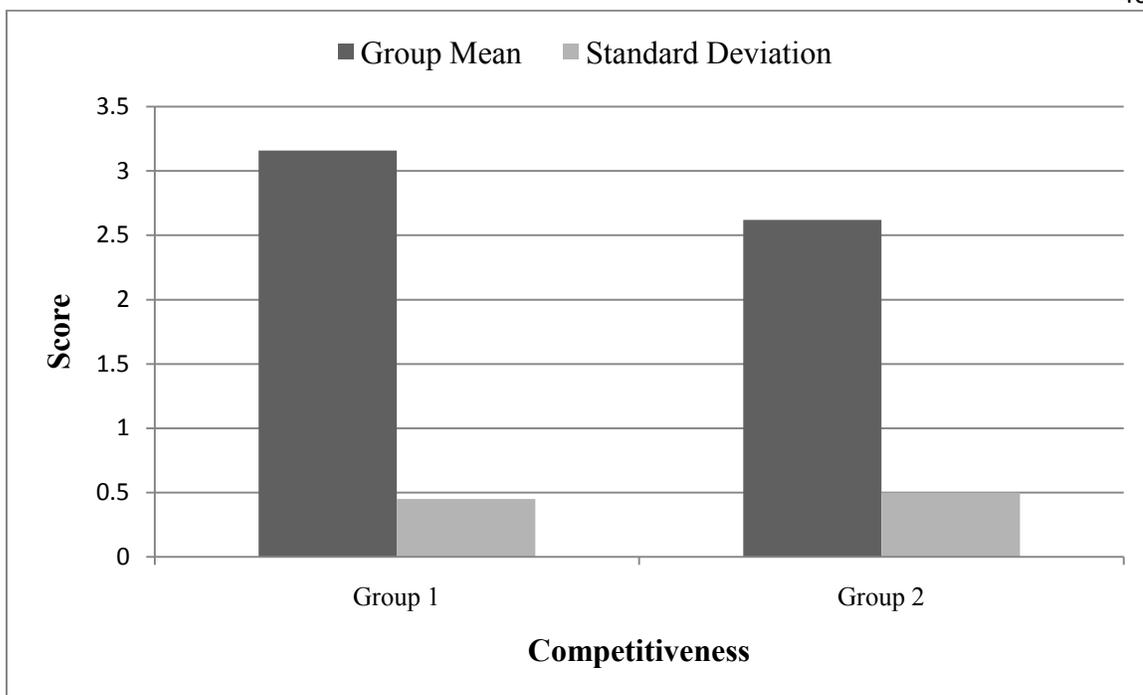


Figure 2. Graphic comparison of competitiveness means and standard deviations between female collegiate athletes (group 1) and females majoring in professional competitive fields (group 2).

Table 5

Independent T-Test: Comparison of Female Collegiate Athletes and Females Majoring in Professional Competitive Fields on Competitiveness

	T-Test for Equality of Means		
	<i>t</i>	df	p
Competitiveness	3.99	48	.000***

*** $p < .001$, two-tailed

Hypothesis 2. Significant differences between female collegiate athletes to females majoring in male dominated fields on levels of competitiveness were examined using an Independent t-test. For competitiveness there was a significant difference, $t(48) = 3.99$, $p < .001$ (See Table 5). As a result, the null hypothesis was rejected. Athletes were found to be more competitive ($M = 3.16$, $SD = .45$) than females majoring in male dominated fields ($M = 2.62$, $SD = .50$).

Group statistics for classification level. A one-way ANOVA was run comparing classes on competitiveness. Results yielded the following value $F(3, 46) = .08$, $p > .05$ (see table 6).

Table 6

One-way ANOVA: Comparing Classification Year on Competitiveness

Competitiveness	<i>df</i>	<i>F</i>	<i>p</i>
Between Groups	3	0.08	0.97
Total	49		

* $p < .05$

Hypothesis 3. Data analysis was conducted based on classification year and competitiveness levels among the combined group of female collegiate athletes and females majoring in professional competitive fields. The results indicated there was no significant difference on classification year, $F(3, 46) = .08$, $p > .05$. As a result, the null hypothesis was retained (See Table 6).

Discussion. Recent research indicated that both the number of females engaging in collegiate athletics and females entering professional competitive professions are increasing. This investigation sought to examine if any differences would be evident in selected personality traits and competitive tendencies between the two groups. With regard to personality traits no significant difference was found. In this investigation female collegiate athletes did not differ significantly with females majoring in competitive professional fields on the five facets of personality, but the two groups did differ significantly on competitiveness. Ryska's (2003) study concluded that athletes in competitive situations were less likely to show sportsmanship and more motivated to win

at all costs raising the personality trait of neuroticism in athletes. This contradicted the results from this investigation. In this investigation no significant difference was found in any of the five personality facets between the two groups, resulting in retaining Hypothesis 1.

The rejection of null Hypothesis 2 on the results of this investigation supported Ryska's (2003) study that stated competitiveness levels observed from those having athletic status were much higher than non-athletes. This contradicted the Reiter et al. (2007) study that stated there would be no significant difference between athletes and non-athletes on levels of competitiveness.

In consideration, to Hypothesis 3 which stated there will be no significant difference on classification year/level among all participants under examination on competitiveness levels was supported and retained. This is in contrast with the works of Amrose and Horn (2000) that stated competitiveness levels for collegiate athletes were lower in regards to classification year, whereas, non-athletes' competitiveness levels were higher in regards to classification year. This discrepancy could be due to the range of ages within classification year.

Mean scores and standard deviations were essentially equal between the two female groups for all personality traits measured. While motivation levels and classification year "within" group information was collected, for the purposes of this study it was not analyzed. These data are recommended for future research in order to determine the affect of motivation levels on the five facets of personality measured and to see if motivation is in fact linked to competitiveness as explored in Chapter 2.

Furthermore, to examine competitive differences within groups in regards to classification year age was also collected; however it was not studied in this investigation but would be beneficial for future researchers to take into account with respect to the variables measured in this investigation.

Athletic status of participants was monitored in this investigation. However, participants who were adolescent athletes or previous high school athletes were not taken into account which could have adjusted their individual competitiveness levels. Therefore, it is plausible that these participants who were in group two could have had changes in personality type and competitiveness because of their adolescent athletic status. Also, in group one the majority of these individual female athletes were not monitored, therefore, there could have been many collegiate athletes also in professional competitive fields which could have also influenced the results of this study.

Even though some of the data for hypothesis one and two of the results did not show significant differences it provided interesting implications. Several other variables approached significance. The variables of competitiveness and openness showed the most difference in the data analysis between the two groups. It was also interesting to note that between the groups specific personality traits were different.

While not specifically addressed in this investigation, it was found that females majoring in professional competitive fields had a high negative correlation between competitiveness and agreeableness. How you perceive yourself to be and that individual's self-reflection of one's self was accurate when it came to the results of this

investigation. While the facet of agreeableness was negatively related to competitiveness no other correlation of significance was found among the other four facets of personality.

In conclusion, although competitiveness was the only statistically significant difference between groups, means for many other variables moved in the direction that there indeed are many distinct differences between female collegiate athletes to collegiate females majoring in professional competitive fields in parallel to many variables measured in this investigation. In addition, competitiveness does in fact have influences on an individual's personality traits. Even though agreeableness was the only variable that was significant in the correlation in this study the other variables means were close to showing that competitiveness influences those facets of personality as well.

Chapter 5

Summary, Conclusions, and Recommendations

In the previous chapters, the following components concerning this investigation were introduced: (a) the problem was stated, (b) a review of related literature was conducted, (c) methods and procedures were described, (d) a data analysis was provided, and (e) a discussion of the results was presented. In this chapter, a summary, conclusions, and recommendations for future research are presented.

Summary. The purpose of this investigation was to investigate differences in specific personality traits and competitiveness levels between female collegiate athletes and females majoring in professional competitive fields. Females from Fort Hays State University (FHSU) athletic teams and female students pursuing undergraduate coursework in professional competitive fields for the Spring Semester of 2010 were selected for this investigation. Twenty-three female collegiate athletes and 27 females majoring in professional competitive fields qualified as participants based on information provided in the demographic profile survey.

The data provided by the participants were analyzed using Independent t-tests and a one-way ANOVA. The Independent t-tests were implemented to identify if there was a significant difference between the two groups of female participants on the five specific personality traits studied: extraversion, agreeableness, conscientiousness, neuroticism, openness, and competitiveness levels. In addition, the investigation used a one-way ANOVA to discern if competitiveness levels would prove to be significantly different with regard to classification level/grade classification (i.e., freshman, sophomore, junior, or senior) among all participants.

Female collegiate athletes. The participants in the female collegiate athlete group data resulted in slightly higher scores in two of the five personality traits. Data analysis indicated mean scores in the personality traits of extraversion and neuroticism were slightly higher among the female athlete group. Level of competitiveness proved higher for female athletes. Based on scores, classification level/grade concerning competitive level among the groups were statistically the same.

Females majoring in professional competitive fields. Females majoring in male dominated fields scored slightly higher in three of the five personality traits. The traits of openness, agreeableness, and conscientiousness were slightly higher than the female athletes. The females majoring in professional competitive fields produced lower measures on the level of competitiveness. Competitiveness levels based on classification year measured were similar for females majoring in professional competitive fields.

Group. Overall, the statistical analysis revealed no significant difference between the two female groups in the personality traits of extraversion, agreeableness, conscientiousness, neuroticism, and openness. The female collegiate athlete group produced higher scores in extraversion and neuroticism while the females majoring in traditionally male dominated fields exhibited higher marks in openness, agreeableness, and conscientiousness. While the scores differed between the groups they did not result in a statistically significant difference on any of the five personality traits under test. In the analysis of competitiveness levels the female athletes proved to be significantly higher than those of female majors in professional competitive fields. Regarding competitiveness levels relating to classification level and grade, analysis indicated no

significant difference concerning the classification level among all participants under examination.

Conclusions. Based upon the results and the limitations of this investigation the following conclusions were reported:

1. There was no significant difference in personality traits between female collegiate athletes and females majoring in professional competitive fields.
2. There was a significant difference in competitiveness levels between female collegiate athletes and females majoring in professional competitive fields.
3. There was no significant difference in competitive levels with regard to classification level/grade among the combined group of female collegiate athletes and females majoring in professional competitive fields.

Recommendations for further study. Additional analysis using correlations was run by the researcher for additional interest in the interpretation of any significant relationships based on descriptive information. Based upon the results of this investigation the following recommendations for further study were presented

1. Future investigations should take into consideration the age of participants, the sample size, and the demographics as the sample was limited to FHSU female collegiate athletes and females majoring in professional competitive fields.
2. Future investigations should take an increasingly in depth look at the relationship between competitiveness on the five personality traits examined in this investigation.

3. Future investigations should consider data analysis to examine within group analysis in the two groups in addition to the between results found in this investigation.
4. Future investigations should consider measuring motivation levels in addition to competitiveness levels to the five personality traits. As mentioned in the literature review motivation is strongly linked to competitiveness and should be examined in future studies.
5. In the literature review goal attainment was also linked to motivation and competitiveness levels and should be examined in future studies of women in sports and those entering in professional competitive fields.
6. Future investigations should look at collegiate female individual sports compared to team sports.
7. Future investigations should look at competitiveness from the standpoint of fear of failure rather the definition of winning at all costs used in this investigation.
8. Future investigations should take into consideration the self-report method of this investigation. Observed personality traits and competitiveness would provide more control over the data reports.

References

- Allscheid, S.P., & Cellar, D.F. (1996). An interactive approach to work motivation: The effects of competition, rewards, and goal difficulty on task performance. *Journal of Business and Psychology, 11*, 219-237.
- Amrose, A., & Horn, T. (2000). Intrinsic motivation: Relationships with collegiate athletes' gender, scholarship status, and perceptions of their coaches' behavior. *Journal of Sport and Exercise Psychology, 22*, 63-84.
- Bell, R. (2007). A history of women in sport prior to Title IX. *The Sport Journal, 10*(2), Spring, 2007.
- Braden, J.P. (1995). Intelligence and personality in school and educational psychology. In D. G. Saklofske & M. Zeidner (Eds.), *International handbook of personality and intelligence*, (pp. 621-650). New York: Plenum.
- Burisch, M. (1984). Approaches to personality inventory construction. *American Psychologist, 39*, 214-227.
- George, R.L., Marshall, J.C., Hoemann, V.H., & Minkevich, G. (1972). Personality differences among community college students. *College Student Journal, 6*(4), 30-36.
- Gill, D. (1988). Gender differences in competitive orientation and sport participation. *International Journal of Psychology, 19*, 145-159.
- Gill, D., & Deeter, T. (1988). Development of the Sport Orientation Questionnaire. *Research Quarterly for Exercise and Sport, 59*(3), 191-202.

- Gorman, E. (2005). Gender Stereotypes, same-gender preferences, and organizational variation in the hiring of women: Evidence from law firms. *American Sociological Review, 70*, 702-728.
- Griffin-Pierson, S. (1990). The competitiveness questionnaire: A measure of two components of competitiveness. *Journal of Measurement and Evaluation in Counseling and Development, 23*(3), 108-115.
- Heitman, R., Vicory, J., Kovalski, J., Pugh, S., & Norell, P. (2006). Collegiate year of eligibility, sex, and sports achievement motivation. *Journal of Perceptual and Motor Skills, 102*(1), 171-174.
- Hinsz, V. (2005). Influences of social aspects of competition in goal-setting situations. *Current Psychology: Developmental, Learning, Personality, and Social, 24*(4), 258-273.
- Horney, K. (1937). *The neurotic personality of our time*. New Yourk: Norton.
- Houston, J.M., McIntire, S.A., Kinnie, J., & Terry, C. (2002). A factorial analysis of scales measuring competitiveness. *Journal of Educational and Psychological Measurement, 62*(2), 284-298.
- John, O., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and Research* (2nd ed.). (pp. 102-138). New York, NY: The Guilford Press.

- Lerner, B.S., & Locke, E.A. (1995). The effect of goal setting, self-efficacy, competition, and personal trials on performance of an endurance task. *Journal of Sport and Exercise Psychology, 17*, 1138-1152.
- Lopiano, D. (2000). Modern history of women in sports. *Journal of Clinics in Sports Medicine, 19*(2), 163-173.
- Lounsbury, J.W., Hutchens, T., & Loveland, J.M. (2005). An investigation of Big Five personality traits and career decidedness among early and middle adolescents. *Journal of Career Assessment, 13*(1), 25-39.
- McCrae, R.R. & Costa P.T. (1987). Validation of the Five-Factor Model of Personality across instruments and observers. *Journal of Personality and Social Psychology, 52*(1), 81-90.
- McCrae, R.R., & Costa, P.T. (2003). A contemplated revision of the NEO Five-Factor Inventory. *Journal of Personality and Individual Differences, 36*, 587-596.
- McCrae, R.R., & John, O.P. (1992). An introduction to the Five-Factor Model and its applications. *Journal of Personality, 60*, 175-215.
- Morris, T., & Summers, J. (2004). *Sport Psychology: Theory, Applications, and Issues* (2nd ed.). Milton, Qld: John Wiley & Sons Australia, Inc.
- O'Neil, D.A., Hopkins, M.M., & Bilimoria, D. (2008). Women's careers at the start of the 21st century: Patterns and paradoxes. *Journal of Business Ethics, 80*, 727-743.
- Pervin, L.A., & John, O.P. (1999). *Handbook of personality: Theory and research* (2nd ed.). New York: Guilford.

- Reiter, M., Liput, T., & Nirmal, R. (2007). Personality preferences of college student-athletes. *College Student Journal, 41*(1), 34-36.
- Ryckman, R., Hammer, M., Kaczor, L., & Gold, J. (1990). Construction of a Hypercompetitive Attitude Scale. *Journal of Personality Assessment, 55*(3&4), 630-639.
- Ryska, T. (2003). Sportsmanship in young athletes: The role of competitiveness, motivational, orientation, and perceived purposes in sport. *Journal of Psychology, 137*(3), 273-293.
- Tenenbaum, G., & Eklund, R.C. (2007). *Handbook of sport psychology* (3rd ed.). Hoboken, New Jersey: John Wiley & Sons, Inc.
- Tusak, M., Faganel, M., & Bednarik, J. (2005). Is athletic identity an important motivator? *International Journal of Sport Psychology, 36*, 39-49.
- Yan-yuan, C., & Man-na, H. (2007). A relative study between competitiveness and Big Five Model of Personality of university students. *Chinese Journal of Clinical Psychology, 15*(5), 527-529.

Appendix

Appendix A
Demographic Profile Survey

Participant # _____

Athlete _____ Non-Athlete _____

Directions: Please circle the best answer that applies or fill in the blank accordingly.

- 1a. Age: _____
- 1b. Birthdate: _____
2. College Classification: Freshman Sophomore Junior Senior
3. Current Investigation (group) Status: Athlete Non-Athlete
4. If you answered "athlete" to number 3, please circle the appropriate response, if not, please go to question 5.
 Year of collegiate athletic participation:
 Freshman Sophomore Junior Senior
5. If you answered "non-athlete" to number 3, were you ever a college athlete?
 Yes No
 -If so, how many years? 1 2 3 4
- 6a. Major/Program of Study: _____
- 6b. Major GPA: _____
7. Professional Career Occupation: _____
8. Answer the following: I am a (circle) Type A Type B personality
Type A personality- impatient, control oriented, hard driven, ambitious and chronically discontent with their current achievements
Type B personality- relaxed, patient, easy going and involved with the quality of life
9. Answer the part that applies to you:
 Part 1: As an athlete I consider myself a competitive person (circle): Yes No
 Part 2: As a non-athlete I consider myself a competitive person (circle): Yes No
10. I consider myself a motivated/goal oriented person (circle): Yes No

Appendix B
Big Five Inventory

The Big Five Inventory (BFI) (John, & Srivastava, 1999)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1. Disagree Strongly
2. Disagree a little
3. Neither agree or disagree
4. Agree a little
5. Agree strongly

I See Myself as Someone Who...

- | | |
|---|---|
| ___ 1. Is talkative | ___ 25. Is inventive |
| ___ 2. Tends to find fault with others | ___ 26. Has an assertive personality |
| ___ 3. Does a thorough job | ___ 27. Can be cold and aloof |
| ___ 4. Is depressed, blue | ___ 28. Perseveres until the task is finished |
| ___ 5. Is original, comes up with new ideas | ___ 29. Can be moody |
| ___ 6. Is reserved | ___ 30. Values artistic, aesthetic experiences |
| ___ 7. Is helpful and unselfish with others | ___ 31. Is sometimes shy, inhibited |
| ___ 8. Can be somewhat careless | ___ 32. Is considerate and kind to almost everyone |
| ___ 9. Is relaxed, handles stress well | ___ 33. Does things efficiently |
| ___ 10. Is curious about many different things | ___ 34. Remains calm in tense situations |
| ___ 11. Is full of energy | ___ 35. Prefers work that is routine |
| ___ 12. Starts quarrels with others | ___ 36. Is outgoing, sociable |
| ___ 13. Is a reliable worker | ___ 37. Is sometimes rude to others |
| ___ 14. Can be tense | ___ 38. Makes plans and follows through with them |
| ___ 15. Is ingenious, a deep thinker | ___ 39. Gets nervous easily |
| ___ 16. Generates a lot enthusiasm | ___ 40. Likes to reflect play with ideas |
| ___ 17. Has a forgiving nature | ___ 41. Has few artistic interests |
| ___ 18. Tends to be disorganized | ___ 42. Likes to cooperate with others |
| ___ 19. Worries a lot | ___ 43. Is easily distracted |
| ___ 20. Has an active imagination | ___ 44. Is sophisticated in art, music, or literature |
| ___ 21. Tends to be quiet | |
| ___ 22. Is generally trusting | |
| ___ 23. Tends to be lazy | |
| ___ 24. Is emotionally stable, not easily upset | |

BFI Scale Scoring (“R” denotes reverse-scored items):

Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R, 32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

Note. Copyright 1991 by Oliver P. John

Appendix C

Hypercompetitive Attitude Scale

Hypercompetitive Attitude Scale (Ryckman et al., 1990)

Directions: Read each item carefully. Using the scale below, please select the number that best describes YOU and put that number in the blank provided.

1= *Never true of me* 2=*Somewhat true of me* 3=*Neutral*
 4=*Very much true of me* 5=*Always true of me*

- _____ 1. Winning in competition makes me feel more powerful as a person.
- _____ 2. I find myself being more competitive even in situations, which do not call for competition.
- _____ 3. I do not see my opponents in competition as my enemies.
- _____ 4. I compete with others even if they are not competing with me.
- _____ 5. Success in competition does not make me feel superior to others.
- _____ 6. Winning in competition does not give me a greater sense of worth.
- _____ 7. When my competitors receive awards for their accomplishments, I feel envy.
- _____ 8. I find myself turning a friendly game or activity into a serious contest or conflict.
- _____ 9. It's a dog-eat-dog world. If you don't get the better of others, they will surely get the better of you.
- _____ 10. I do not mind giving credit to someone for doing something that I could have done just as well or better.
- _____ 11. If I can disturb my opponent in some way in order to get the edge in competition, I will do so.
- _____ 12. I really feel down when I lose in any competition
- _____ 13. Gaining praise from others is not an important reason why I enter competitive situations.
- _____ 14. I like the challenge of getting someone to like me who is already going with someone else.
- _____ 15. I do not view my relationship in competitive terms.
- _____ 16. It does not bother me to be passed by someone while I am driving on the roads.
- _____ 17. I can't stand to lose an argument.
- _____ 18. In school, I do not feel superior whenever I do better on tests than the other students.
- _____ 19. I feel no need to get even with a person who criticizes or makes me look bad in front of others.
- _____ 20. Losing in competition has little effect on me.
- _____ 21. Failure or loss in competitions makes me feel less worthy as a person.
- _____ 22. People who quit during competition are weak.
- _____ 23. Competition inspires me to excel
- _____ 24. I do not try to win arguments with members of my family.
- _____ 25. I believe that you can be a nice person and still win or be successful in competition.
- _____ 26. I do not find it difficult to be fully satisfied with my performance in a competitive situation.

Hypercompetitive Attitude Scale Scoring:

Reversed Items: 3, 5, 6, 10, 13, 15, 16, 18, 19, 20, 24, 25, 26

Appendix D
Informed Consent

CONSENT AND AUTHORIZATION FORM

THE DIFFERENCES OF PERSONALITY TRAITS AND COMPETITIVE TENDENCIES BETWEEN FEMALE COLLEGIATE ATHLETES AND FEMALES MAJORING IN PROFESSIONAL COMPETITIVE FIELDS

INTRODUCTION

You are invited to participate in a research investigation to be conducted within the Department of Health and Human Performance at Fort Hays State University. The Health and Human Performance Department at Fort Hays State University supports the practice of protection for human subjects participating in research. The following information is presented to you for the purpose of making an informed decision as to whether you choose to be a participant in this study. If you choose to participate in this investigation you have the right to withdraw at any time for any reason without affecting your relationship with the investigator, the Department of Health and Human Performance, or Fort Hays State University.

PURPOSE OF THE INVESTIGATION

The purpose of this investigation is to compare female collegiate athletes and females majoring in professional competitive fields to 1) selected personality traits and 2) competitive tendencies at Fort Hays State University. Upon analysis, there will be a determination as to whether differences exist between female collegiate athletes and females majoring in competitive professional fields.

PROCEDURES

The target population for this investigation is female collegiate athletes and females enrolled in undergraduate competitive majors at Fort Hays State University. Participants will be asked to read and sign an informed consent authorization form. Participants will be instructed to complete three surveys (i.e., demographic information, personality traits, and competitive tendencies). Participants will be asked to answer all questions as honestly and as accurately as possible. It will take approximately 20-30 minutes to complete all three surveys. Participants are instructed to follow directions and the assigned order of the testing instrument. Upon completion of the test packet, it is to be collected by a test administrator. The data will be used for statistical analysis.

RISKS

This study has been reviewed and determined that it poses little or no risk of harm to the participants; as this investigation is solely conducted as a survey. However, in the unlikely event

that a participant feels any coercion, threat, or discomfort at any time during the study, she may choose to withdraw with no further questions asked.

BENEFITS

An increasing number of young females are participating in sport through the advent of Title IX and are now engaging in coursework and professional development that has historically been male dominated. The information gained from this investigation will add to the research database as to why and what personality and competitive attributes may be contributing factors. Participants will gain no benefits by participating in this study other than educational (or course credit if it is offered by their instructor).

INFORMATION TO BE COLLECTED

Any and all information gathered during the testing process is strictly privileged and confidential. Participants will be assigned an arbitrary subject number to assist in data collection. Administrators assure that neither name nor subject number of participant will be associated in any way with any reportable results. The data collected in this study will be seen and utilized only by the investigator and the members of the thesis research committee. By signing this document you are consenting permission to utilize data collected for the purpose of the investigation. This information will not be released without the participants' written consent.

INSTITUTIONAL DISCLAIMER STATEMENT

If an injury is attained in this study, the Kansas Tort Act provides compensation if it can be documented that it was caused by the state employee's negligence or wrongful act of omission within his/her scope of employment.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION

Participation in this investigation is voluntary. You are not required to sign this document and are free to discontinue participation at any time without affecting your relationship with the investigator, the Department of Health and Human Performance, or Fort Hays State University.

CANCELLING THIS CONSENT AND AUTHORIZATION

Participants have the power to cancel the disclosure of information in writing at any time. If you have any questions about your rights as a research participant as explained in this document or about the research itself, you may contact the Thesis Chair, Dr. Duane Shepherd at 785-628-4374. If any problems or questions arise, please contact Terra Upham at 785-210-5392.

Participant # _____

PARTICIPANT CERTIFICATION:

All persons who take part in this study must sign this consent form. Signature in the space provided indicates those participants have been informed of their rights as a participant, and have agreed to participate on that basis:

By my signature I will testify that I have been given a copy of this Consent and Authorization Form. I have read and understand the procedures contained within this Consent and Authorization form. I have had appropriate time to have all my questions answered to my satisfaction, and understand the use of information collected on my performance in this investigation. I understand and have been given contact information if I should have any questions about my rights as a research participant.

It is at this time that I agree to participate in this study. I certify that I am 18 years of age or older. I agree to the disclosure of my information for the sole purpose of the procedures stated above.

Print Name

Date _____

Participant's Signature

Date _____

As a participant in this investigation, you are entitled to a copy of the results from this investigation. At the completion of the investigation, if you would like the researcher to provide this information, please indicate below:

YES _____

NO _____

If yes, please provide an e-mail address below:
