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AN INVESTIGATION OF GENDER, PRIOR ACCESS TO ATHLETICS,
AND INTEREST LEVELS IN INTERCOLLEGIATE SPORTS
OF FIRST-TIME-IN-COLLEGE FRESHMEN

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the School of Teaching, Learning, and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

Summer Term
2012

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ABSTRACT

The focus of this research was to investigate the effects of gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on level of first-time-in-college (FTIC) freshmen's interest in participating in intercollegiate athletics. To this end, 1,196 respondents (682 females and 514 males) who were admitted to the University of Central Florida and attended freshman orientation sessions in May and June of 2007 at the UCF-Orlando campus completed the face-to-face survey. Participants ranged in age from 18 years of age to 25 years of age, representing varied racial/ethnic backgrounds, with a majority being registered as full-time students at time of the survey.

The FTIC freshmen anonymously and voluntarily completed a modified version of The Student Interests in Athletics, Sports, and Fitness Survey (National Collegiate Athletic Association, 1995). Quantitative data gathered through analysis of closed-response questions provided information on their demographics, general interest in athletics, prior access to school and non-school sponsored sports, and interest in participating in college athletics.

Survey responses suggested that a gender difference exists in FTIC freshmen when taking into account prior access to school and non-school sponsored athletics in predicting level of interest in participating in intercollegiate sports. FTIC freshmen males reported having more access to athletics than did FTIC freshmen females prior to attending freshman orientation sessions in May and June of 2007. In addition, more FTIC freshmen males than females reported being interested in participating in

intercollegiate athletics. Lower interest and participation rates by females in intercollegiate sports may, therefore, be an artifact of less access to opportunities to participate in sports during high school.

Although almost four decades have passed with the expectation of gender equity within school settings in effect, most educational institutions are not in compliance with Title IX legislation. Females have not been afforded the same opportunities to participate in sports as males, and this appears to have influenced their interest in participating in sports. The findings of this study demonstrate the need for increased enforcement of Title IX legislation at all levels of education for true gender equity and athletic interest to be realized.

To my family with love and appreciation.

You have been my strength and support throughout this educational journey.

My personal growth is a direct reflection of your unending encouragement and patience.

Thank you for always believing in me.

ACKNOWLEDGMENTS

“Thank you” seems an insufficient way to pay homage to the many individuals who have supported me with completing this study. First, I would like to acknowledge my husband for his unwavering encouragement and patience as I completed each step of my degree. He has been the foundation with which I have fallen back on numerous times throughout this process. Without his unconditional love and continued inspiration to persevere, I would not be where I am today. What does not kill you only makes you stronger! Much love and gratitude to you, Brian.

I appreciate the patience and support provided to me by my chair, Dr. Taylor and respective committee members, Dr. Kaplan, Dr. Pawlas, and Dr. Doherty. Your guidance and insight have directed me through the final stages of completing my degree. Your flexibility and quick responses are the reasons I have completed my study. Even though each of you could have opted to spend your valuable time elsewhere, you chose to allocate it to me. I am forever grateful to you Drs. Taylor, Kaplan, Pawlas, and Doherty.

I am also grateful for the many hours Dr. Lynn read and reread this document. It is difficult to discern which was of more value to me during this process; her wisdom and editorial experience or her emotional support. Much thanks to you, Dr. Lynn.

One last thank you is extended to my dear friend, Amy, for her honesty, patience, and countless hours of talk therapy. Your cheering and continued query of my progress enabled me to finish versus choosing to change my plans. You have taught me a valuable lesson about myself, and I thank you for that, Amy.

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CHAPTER 1 THE PROBLEM AND ITS CLARIFYING COMPONENTS

Introduction

This chapter contains an overview of the study that was conducted to determine the influence of gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on level of FTIC freshmen's interest in participating in intercollegiate athletics. Included is a discussion of issues relevant to gender bias, the conceptual framework, and statement of the problem. The research questions, methodology, delimitations, and the significance and organization of the study are also addressed.

Gender Bias

Gender bias has often been considered to be a problem of the past or a problem no longer evident in American culture and educational institutions. According to the U.S. Department of Education Secretary's Commission on Opportunities in Athletics (2002), the total number of both high school and college level female athletic teams has increased since the passage of Title IX legislation in 1972. The total number of female intercollegiate teams increased by 66% from 1981 to 1999 (U.S. Department of Education Secretary's Commission on Opportunities in Athletics, 2002), and the number of female high school athletes increased 1,000% since 1971 (National Federation of State High School Athletic Associations, 2008). Despite these gains, concerns have lingered regarding the effectiveness of gender equity legislation and its impact on students.

These concerns have been prompted by several indications that gender bias has persisted. One such finding was that of the U.S. Department of Education (2002a), where one school district allowed a female field hockey team to practice on a field with broken glass, a field that was poorly maintained and deemed unsafe for the male football team. In addition, the National Federation of State High School Athletic Associations (2008) reported that female athletes in 2007-2008 had access to 1.3 million fewer athletic opportunities as compared to their male counterparts. In yet another example, males were determined to have received 10% more intercollegiate athletic scholarships (DeHaas, 2008), and male sports had been granted 65% more in athletic program budgets than female sports. The need for reform was reported by Cheslock (2008). Moreover, most educational institutions have not been in compliance with federal legislation prohibiting gender discrimination and, at the time of the present study, institutions in violation of this law had not lost federal funding as stipulated by the regulation (DeHaas, 2008; Rhoads, 2004).

Certain beliefs, values, and behaviors have been maintained over time and passed on from generation to generation via institutions. Occasionally, these generally accepted practices and beliefs have been questioned, and laws have been passed to convey and reflect the newly determined ideal condition. Essential to an evolving society, these efforts have been noble; however, they have sometimes been ineffective in changing attitudes and shaping new behavior. Many institutions have continued to work towards previous goals and have inadvertently reinforced the original behavior targeted for social change. Gender equity in educational institutions is one example.

The women's movement prompted a reconceptualization of gender roles by critically examining traditional roles including the role of female athletes and in generating Title IX legislation which prohibited gender discrimination (Birrell, 1980). Ideally, the implementation and history of successful enforcement of Title IX would have ended discrimination based upon gender, providing females and males equal opportunities, diminishing previous social stigmas associated with females' athletics and increasing females' athletic interests. However, sports, as an institution, has tended to emphasize a value system that encourages and preserves sexual stereotypes (Boutilier & SanGiovanni, 1983; Sabo & Runfola, 1980). In fact, Fasteau (1980) equated masculinity and athletics in American culture. Given this definition of sport, the time-honored message regarding athletic involvement of females was not shocking; females who play sports, especially at a highly competitive level, have typically been seen as unfeminine. By simply participating in sports, a female's femininity has been brought into question (Harris, 1980). Modifying gender roles, as Title IX had the potential to do, and allowing females and males the flexibility to easily participate in traditionally restricted gender specific behaviors, has yet to fully materialize. Consequently, athletic opportunities for females have remained unequal to those afforded to males within educational institutions where gender discrimination continues to be taught, modeled, and reinforced (Staurowsky et al., 2009).

Based upon reports of gender bias in the literature, this research study was conducted to examine the effects of gender and prior student access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs

on intercollegiate interest in athletics. University and college compliance with Title IX (gender equity legislation for federally funded educational institutions) has offered limited interpretation of intercollegiate level of interest in sports. In an attempt to more fully understand associations with intercollegiate interest in athletics, this study was conducted to examine the effects of one's gender and having prior access to sports within the context of gender role socialization and sexism in sports programs.

To attend to the distinctive, germane, and overlooked gender role socialization and sexism within the realm of athletic activities and gender equity, a framework was developed for this study to illuminate such possible associations with intercollegiate interest in sports. The primary objective of this research was aimed at assessing whether one's gender and having prior access to school sponsored and non-school sponsored athletic activities influenced first-time-in-college freshmen's interest level in intercollegiate sports. Gender and prior athletic opportunities were hypothesized to result in an increased level of interest in intercollegiate sports with males indicating more athletic opportunities than females and consequently higher levels of interest in sports. Results supporting this hypothesis were presumed to demonstrate the need for increased enforcement of the legislation at all levels of education for true gender equity and athletic interest to be realized.

Title IX Legislation

Title IX of the Educational Amendment Act of 1972 prohibited educational institutions from discriminating based upon gender. At the time of this study, Title IX

had established legal fortification against sex discrimination for nearly 70 million students and employees in all educational institutions that received federal financial support (National Coalition for Women and Girls in Education, 2002; U.S. Department of Education, 2002b). Title IX was intended to ensure equal opportunity for females and males in all aspects of education including access to post-secondary education, equitable treatment in classrooms, equal opportunities in athletics, and reasonable employment practices.

Although Title IX prohibited sex discrimination in a variety of educational situations, much focus has been on the application of gender equity within sports. People have been divided, however, on the effectiveness of Title IX in achieving gender equity within this domain. Some have expressed the belief that Title IX has effectively decreased the gap between opportunities for males and females to participate in sports. Since the passage of Title IX in 1972, female participation in athletics has increased 1000% in colleges and universities and in high school settings (National Federation of State High School Athletic Associations, 2008). Proponents of Title IX effectiveness have supported this increase in opportunities for females as improving the health, self-confidence, academic achievement, preparation for post-school success and in decreasing dangerous behavior of girls and women (National Coalition, 2002; Staurowsky et al., 2009; Women's Sports Foundation, 2003). For example, four of five women who played sports during their childhood have attributed their employment success to their experiences while playing sports (MassMutual Financial Group, 2002; U.S. Department of Labor Women's Bureau, 2001).

While these are indications that Title IX has improved athletic opportunities for females, the greater part of higher educational institutions are still not in compliance with the legislation after 40 years. Most colleges and universities have failed to provide opportunities for participation in intercollegiate sports for male and female students in proportion to the gender composition of their undergraduate enrollments (DeHaas, 2008). In the 2001-2002 school year, approximately 79 National Collegiate Athletic Association [NCAA]-Division I schools met substantial proportionality, representing only 25% of the educational institutions governed by this legislation (Stafford, 2004). According to the NCAA, during the 2007-2008 school year, roughly 412,768 athletes participated in varsity sports in which the NCAA sponsored championships. Of this group of athletes, 57.4% were male. On average, NCAA institutions afforded 232 athletic opportunities to males as compared to 168 athletic opportunities for females (DeHaas, 2009). Title IX was passed with the distinct objectives “to avoid the use of federal resources to support discriminatory practices. . . to provide individual citizens effective protection against those practices” (Cabbib v. University of Chicago, 1979, as cited in Stevens, 2004, p. 158). It appears that federal resources have continued to be used to support discriminatory practices with many higher educational institutions guilty of not protecting individual students from these practices (Stevens, 2004).

Policy Interpretation

The United States Department of Education, Office of Civil Rights (OCR) Policy Interpretation of Title IX legislation determined Title IX to be broad and encompassing

all levels of educational programs receiving federal funding of any sort in 1979 (Wilson, 2003). This has continued into the present time. In addition, this policy interpretation suggested three areas of focus for Title IX that govern athletic programs where federal financial assistance is awarded (Bentley, 2004). The first is effective accommodation of interests and abilities, the second is financial assistance, and the third is other program areas or benefits such as equipment, locker rooms, and practice time (Bentley, 2004). A three-pronged test for effective accommodation provides educational institutions the following avenues to demonstrate compliance:

1. Providing opportunities for participation in intercollegiate sports by gender in approximate proportion to undergraduate enrollment (substantial proportionality), or
2. Demonstrating a *history and continued practice* of expanding opportunities for the underrepresented gender (continued expansion), or
3. Presenting proof that it is *fully and effectively accommodating the athletic interests* of the underrepresented gender (full accommodation). (Stafford, 2004. p. 1470)

This three-pronged test for effective accommodation has provided guidance for institutions to demonstrate compliance with the legislation. First, substantial proportionality was able to be demonstrated if the percentage of underrepresented athletes fell within five percentage points of the gender's representation among all undergraduates (Sigelman & Wahlbeck, 1999). If an institution was unable to demonstrate substantial proportionality, it could show compliance with Title IX by demonstrating continued expansion evident by some proven history of the institution's adding participation opportunities for the underrepresented gender and practicing program expansion. Guidance was provided by the OCR in identifying the following

factors helpful in demonstrating the history of an educational institution: (a) increasing the number of intercollegiate teams or promoting teams to intercollegiate ranking for the underrepresented gender, (b) increasing the numbers of participants in intercollegiate athletics who are members of the underrepresented gender, and (c) positively responding to requests by students or others for addition or elevation of sports although no sort of historical timeline is enumerated by the OCR (Bentley, 2004). To show continued expansion, an institution was also required to execute a nondiscriminatory procedure for requesting the addition of athletic programs and communicate this procedure to students as well as maintain a current implementation plan of program expansion that responded to developing interest and abilities of students (Bentley, 2004). Lastly, if an institution was unable to meet Title IX compliance by way of substantial proportionality or continued expansion, they could do so by providing evidence of a nondiscriminatory reason for the disproportional athletic participation rate. According to the law, an institution that did not accommodate the interests and abilities of the underrepresented gender in its current program was to be cited by OCR. This occurred only if there was an unmet interest in a certain sport, sufficient ability to sustain a team, and a realistic prospect of competition for the team (Bentley, 2004). Various policy documents have been devised in addition to the above mentioned three-prong test to assist athletic departments with enforcement and compliance with Title IX. These included the 1990 Title IX Athletics Investigator's Manual (Stafford, 2004), 1996 Policy Standards, a report from the Commission on Opportunity in Athletics (U.S. Department of Education, Secretary's Commission on Opportunity in Athletics, 2003), and the March 2005 Policy

Clarification from the Bush administration which was subsequently rescinded (Cheslock, 2008). No significant modifications or changes to the original amendment have resulted from these additional policy documents, leaving federally funded educational institutions with the responsibility of meeting the requirements of Title IX as it was initially promulgated in 1972 and further clarified in 1979 by the OCR.

Title IX Effectiveness

Although colleges and universities have had three ways to demonstrate compliance with Title IX, the courts have not found an institution able to satisfy the continued expansion test or provide satisfactory proof of full accommodation. In fact, decreasing program expenditures, not program expansion, have been the trend in intercollegiate athletics over the past 20 years (Sigelman & Wahlbeck, 1999; Stafford, 2004). Therefore, most institutions have attempted to meet the substantial proportionality test in accordance with Title IX legislation. However, the attempt appears weak as evident in an examination of Equity in Athletics Disclosure Act (EADA) data for 555 public two-year institutions. In this examination, Staurowsky (2009) found that females comprised 55% of the total student population from academic year 2003 through 2007. During this four-year period of time, only 37% of athletic opportunities were available to women, yielding an 18% gap in athletic equity. Although women athletes had access to 25,576 sports opportunities in academic year 2006-2007, men had access to 44,778 opportunities (Staurowsky, 2009). The need for reform was highlighted in males receiving 10% more athletic scholarships (DeHaas, 2008), and male sports receiving 65%

more in athletic program budgets than female sports (Cheslock, 2008). Enforcement of Title IX has continued to be an issue as the OCR has not removed federal funding from those institutions in clear violation of Title IX. It appears the lack of enforcement of Title IX and the underlying assumptions held by society, especially those in control of the enforcement of legislation, must be challenged to meet the intent of Title IX.

Some authors have expressed the belief that gender differences in athletic interest and ability actually reflect institutionalized sexism in sports programs (Brake & Catlin, 1996; Henson & Cabaniss, 1994; Weistart, 1996). Males have typically been celebrated for their athletic achievements and females have been dissuaded from playing sports (Staurowsky et al., 2009). Equal opportunity for young girls and boys has been viewed as critical to the nation by Cole (2003), who wrote that “sports are an integral part of a child’s educational experience because they build character, foster teamwork, and strengthen both mind and body” (p. 95). Title IX endorsed this belief by promoting equality in educational settings. However, enforcement of the law must occur to achieve true athletic opportunities for female and male students of all ages (Staurowsky et al., 2009; Stevens, 2004).

In this study, the researcher explored how gender and prior access to school sponsored and non-school sponsored sports affected intercollegiate interest in athletics. It was hypothesized that students reporting more equal athletic opportunities to participate in sports prior to entering post-secondary institutions would set an example for future generations of student-athletes, breaking current gender specific barriers to athletic participation. It was anticipated that these redefined athletic role models might further

encourage females to develop their athletic potential. A shift toward an empowered and more equitable view of valued gender roles would result in an increased interest in athletics for intercollegiate females (Miller, Heinrich, & Baker, 2000). Increased athletic opportunities at younger ages may drive interest by informing all students, especially females, that it is acceptable for them to pursue athletic endeavors and gain the necessary skill development to be an athlete and life-long learner of physical education (Hunt, 1999). Yuracko (2002) perceived “the proportionality requirement [as encouraging] females to develop a sense of their own bodily agency and develop[ing] a conception of themselves as agents in their social and physical world” (p. 73). This widely held and socially valued perception of oneself, which has traditionally been encouraged in males, was thought to increase athletic interest and ability of females in higher education institutions and reinforce the right of females to experience equal treatment in athletics (Lazerson & Wagener, 1996; Staurowsky et al., 2009). The hope was for females and males, young and old, to begin valuing athletic traits and attributes in females to the same extent that athleticism has been valued in males.

Conceptual Framework

Feminist theorists have believed that females can empower themselves through participation in sports by developing the confidence and self-esteem necessary to succeed in daily interactions and activities (Hall, 1990; Whitson, 1994). Adolescent females have been thought to believe they are valued more for their relationships with others than for who they are and tend to avoid public discourse about their preferences and opinions in

order to decrease opportunities for conflict which may threaten their relationships (Gilligan, 1990). During this process, females have tended to define their value and worth in relation to others. Relying heavily on others initiates the process of losing confidence in their skills and abilities (Gilligan, Rogers, & Brown, 1990). Participation in sports has been thought to assist females in conquering this lack of confidence by giving them an environment where they can champion themselves and become more independent as well as control outcomes within the structure of a team setting (Duquin, 1989). According to various researchers, sports participation has been found to be positively associated with self-esteem across age ranges for females; in elementary school girls (McHale et al., 2005), 12th grade girls (Dishman et al., 2006), and college women (Armstrong & Oomen-Early, 2009). Athletic opportunities have, therefore, been considered to be a valuable tool in teaching females how to survive in a society that tries to define individual females relative to other people (Brown & Gilligan, 1992).

Participating in organized sports has also been viewed as contributing to raising female confidence by helping them cultivate better relationships with their bodies. Typically, males and females have been conditioned to experience their bodies differently with males being socialized to take physical risks while females have been socialized not to engage in behavior that may result in injury to the body (Whitson, 1994). This has been thought to be grounded in the high value society has placed on the physical appearance of females over males (Kane, 1996; Smolak, 2004). As part of the gender role socialization process, females have typically been discouraged from participating in sports. This, in turn, has reinforced the idea that females are too fragile to engage in

organized athletic competition. However, females who have participated in sports have learned that they are not too fragile to play, that they can survive injuries sustained from playing, and that their bodies are of value for reasons other than aesthetics (Hausenblas & Downs, 2001; Rutter, 1996). Providing equal athletic opportunities may, therefore, be one way to alter the social meaning of being female as defined by Yuracko (2002) from a passive, attractive individual or sex object to a contributing, strong physical representative of the female gender (Henry, Anshel, & Michael, 2006).

In addition to empowering females, increasing athletic opportunities can provide females with the chance to alter existing social structures and typical gender role socialization practices (Yuracko, 2002). Athletic competition has provided females the opportunity to learn how to get along with others, collaborate, and work as a team (Bingham, Stryker, & Neufeldt, 1995). These socially valued traits and attributes have assisted females in working better with others across multiple activities and environments. According to Messner (1994), females and males who have played sports together at an early age have been likely to modify their views of one another, placing value on newly expanded gender roles in addition to learning valued skills. For example, Giuliano, Popp, & Knight (2000) observed that girls who played in predominantly male or co-ed groups as children were more likely to participate in sports later in life. This acceptance of females in nontraditional gender roles found in formal institutions may break current barriers and allow systemic change to occur providing gender equity in educational settings. Encouraging co-ed athletic participation during the formative years of childhood development was presumed to have the potential to alter the current gender

hierarchy and unequal treatment of females (Messner, 1994) as well as increase the likelihood of continued athletic interest and participation by females (Giuliano et al., 2000).

Providing equitable athletic opportunities at all levels of education would provide females a fair and nondiscriminatory, nonsexist environment where athletic interests would have the opportunity to flourish unlike the current educational settings that actually contribute to and shape females' low level of interest in sports through gender role socialization (Yuracko, 2002). In this scenario, Title IX could become an intervention to prevail over stereotypes as well as a means to decrease the current socializing of females into non-athletic gender roles by enforcing equal opportunities prior to entering post-secondary institutions. Enforcing Title IX early in students' educational experiences by providing equal opportunities for all students was hypothesized in the present study to be a more effective approach to increasing female interest and participation in athletics than waiting until females attend institutions of higher education and offering athletic opportunities or attempting to enforce Title IX legislation at that time. To more clearly understand the intricacies of possible associations with intercollegiate interest in sports beyond Title IX compliance, various factors permeating educational institutions such as academic and athletic gender equity and hegemony in educational institutions, and interest and participation in intercollegiate sports were explored.

Statement of the Problem

Behaviors associated with athleticism are more often aligned with characteristics of males than females (Daniels & Leaper, 2006; Richman & Shaffer, 2000). Females have been characterized as physically weak, dependent upon males, and socially unacceptable if engaging in competition against males and consequently display male characteristics (Staurowsky et al., 2009). Considering traditional gender roles, males have historically dominated athletic activities and typically have been encouraged to participate in sports more so than females. Some would argue that females prefer to engage in other non-athletic activities and behaviors and instinctively choose this gender role. Others, however, have viewed the lack of female interest and participation in sports as a result of limited athletic opportunities provided to females.

Educational institutions have traditionally offered disproportionate athletic opportunities and funding to male sports programs, denying females equitable chances to participate in sports (Stafford, 2004; Staurowsky et al., 2009). Addressing gender equity within schools, Title IX legislation has prohibited such discrimination in educational programs or activities which receive federal funding. Although applicable to all components of educational programming, Title IX has often been discussed within the realm of equitable athletic opportunities for females and males. It has been difficult, however, to determine whether limited athletic opportunities and sexism in educational institutions are responsible for low levels of female interest and participation in sports or if genetics dictate distinct behavior and interest of females and males. The researcher has

addressed the problem of low levels of interest and participation in intercollegiate sports by females.

Definitions of Terms

The following terms were defined originally by the NCAA (1995) in their survey entitled, Survey of Student Interests in Athletics, Sports, and Fitness (Appendix C). These definitions were reproduced in the modified survey, entitled Survey of Student Interests in Athletics, Sports, and Fitness Modified from the NCAA (1995) Survey of Student Interests in Athletics, Sports, and Fitness (Appendix D) for use in the present study as follows:

Intercollegiate was defined as “hav[ing] a head coach, staff, and competitive schedule against other colleges and universities. Students practice on a daily or weekly basis, may follow an individual program of off-season training, travel and occasionally miss classes. They frequently have access to academic support services including tutors and counselors. Some receive scholarships that cover all or a portion of the cost of their education” (NCAA, 1995, p. 4).

Club was defined as “programs [that] are student run and are often supervised by faculty advisors. These programs have an established practice schedule and a schedule of contests against other colleges or universities. There are usually no scholarships in club programs” (NCAA, 1995, p. 4).

Competitive intramural programs were defined as “informal and open to all students. Events take place within the college or university among student teams or

individual students. Competitive activities are those which end with a person or team ‘winning’ or getting ‘first place.’ Teams that compete at the intramural level do not usually have a regular practice schedule” (NCAA, 1995, p. 4).

Non-competitive intramural programs were defined as “not involve[ing] competition and offered to provide opportunities for physical fitness and recreation. These programs include both scheduled and non-credit classes and ‘open hours’ at gyms, pools, and other athletic, fitness, and sports facilities” (NCAA, 1995, p. 4).

Research Questions

The following research questions were used to investigate gender and prior access to athletics to determine the extent to which they were related to interest level in intercollegiate sports:

1. What is first-time-in-college (FTIC) freshman students’ level of interest in intercollegiate athletics?
2. What is first-time-in-college (FTIC) freshman students’ level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?
3. To what extent, if any, is there a difference in gender of first-time-in-college (FTIC) freshman students’ level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?

4. To what extent, if any, does prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' level of interest in intercollegiate athletics?
5. To what extent, if any, does gender influence first-time-in-college (FTIC) freshmen's interest level in intercollegiate athletics?
6. To what extent, if any, does gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshmen's interest level in intercollegiate athletics?

Methodology

The following section outlines the specific methodology used in this quantitative research study. The population and sample are described, followed by an overview of the procedures used in gathering responses to the questionnaire from FTIC freshman students attending the University of Central Florida. Research was initiated only after having been approved by the Institutional Review Board of the University of Central Florida (Appendix A). A description of the research design, instrumentation, and analytic and statistical methods used are detailed.

Sample

From the population of freshman students at the University of Central Florida (UCF), a sample of 2007 summer admits as first-time-in-college (FTIC) freshman students were identified for participation in this study. The sample targeted all FTIC freshmen that attended freshman orientation sessions at UCF during May and June of 2007. Enrollment at UCF for FTIC freshman students was contingent upon their attendance at Freshman Orientation. Given this contingency, all FTIC freshman students enrolling in summer and fall 2007 courses at UCF were given the opportunity to participate in this study as part of their freshman orientation session. This eliminated the need for additional contact with FTIC freshmen who did not attend Freshman Orientation as they were not enrolled in the 2007 summer or fall semesters at UCF. An estimate of the number of students who were in their first year at the institution and had less than 30 credit hours was obtained from the registrar's office and the director of Freshman Orientation. According to the UCF International Research Office, 2,172 FTIC freshmen were enrolled in summer semester 2005, 4,198 FTIC freshmen were enrolled in fall semester 2005, and 121 FTIC freshmen were enrolled in spring semester 2005. Additional data indicated 2,571 FTIC freshmen were enrolled for the summer 2006 semester. Based on these figures and the timeline targeted for administration of the survey (May through June 2007), the researcher identified 2,000 participants for this study.

Procedures

The FTIC freshman students were asked to complete a modified version of The Student Interests in Athletics, Sports, and Fitness Survey (NCAA, 1995) face-to-face during their Freshman Orientation sessions scheduled by UCF Director of Freshman Orientation for May 22, 25, 31, and June 12, and 22, 2007. FTIC freshman students, aged 18 years and older, were asked to voluntarily and anonymously complete and submit the questionnaire prior to leaving the scheduled freshman orientation sessions, at which time the data collection phase was considered to be complete.

Results of the survey from the convenience sample of FTIC freshman students attending freshman orientation sessions identified (a) demographics; (b) orientation group; (c) interest in athletics, fitness, and sports activities; (d) participation in high school athletics, fitness, and sports activities; (e) participation in non-school sponsored athletics, fitness, and sports activities; and (f) interest in participating in college athletics, fitness, and sports activities.

These data were coded and entered in SPSS 14.0 for Windows Grad Pack (2005) program, and descriptive and statistical significance tests were computed.

Research Design

Survey responses were used to predict a relationship between two independent variables and the dependent variable. The independent variables included (a) FTIC freshman students' level of prior access to school and non-school sponsored sports and (b) gender. The dependent variable was intercollegiate athletic interest of FTIC freshman

students. A logistic regression analysis was used to predict relationships, if any, between these variables.

Instrumentation

The researcher received permission from the NCAA, via email correspondence, to modify and use The Student Interests in Athletics, Sports, and Fitness Survey (NCAA, 1995) in June 2006 (Appendix D). Permission was given to reformat the original survey and to modify, delete, and add questions to the survey as necessary. A non-experimental pilot study of the instrument's validity and reliability was conducted by the researcher on July 20, 2006. The pilot study, conducted using approximately 90 FTIC Florida Gulf Coast University (FGCU) freshman students as part of their freshman orientation session, led to the modification of the original NCAA interest survey. Pilot study findings are shared in Chapter 3 of this study in the Instrument Reliability and Validity subsection.

The final instrument used in this study included a brief description of the survey, general instructions, 14 questions about the respondents' interest in athletics, fitness, and sports activities; participation in high school athletics, fitness, and sports activities; general interest in participating; demographic data; and a coded list of athletic activities.

Testing the instrument's validity and reliability consisted of computing a factor analysis using seven variables in the data set. These variables served as constructs for the research questions. Reliability analyses were performed for the constructs derived from the factor analysis. Statistically significant correlations between some of the variables

were found. In addition, the measure of sampling adequacy was determined to be satisfactory.

Two factors were extracted from the factor analysis. Factor I was determined to be a reliable construct, but Factor II was unreliable. As a result, the original, 24-question survey was modified. The six questions comprising Factor I were kept intact, and the three questions identified as the unreliable construct, Factor II, were deleted from the survey.

Additional findings resulting from the pilot test indicated that the instrument required further modification. Several questions were worded in a manner suggesting students were already actively engaged in coursework and campus activities. The sample, however, was a group of students at an orientation session who had not yet begun their first semester at FGCU. For the purposes of this study, those questions were removed from the analysis and, consequently, deleted from the instrument.

Observation of the respondents as the survey was administered and analysis of their responses revealed that reformatting was desirable and instructions for marking answers needed to be clarified. As a result of these observations, the survey was reformatted, directions were added to clarify the yes/no questions, and the coded list of athletic activities was provided as a supplemental handout to the survey questions.

Analytic and Statistical Methods

Descriptive statistics and statistical analyses were performed from the responses coded into the SPSS program. Descriptive statistics were used to summarize and

describe data gathered about the sample. Statistical procedures were used to generalize findings to the population. Statistical significance was reported to make inferences from the sample to the population. Specifically, results from the interest survey of FTIC freshmen attending the University of Central Florida were tested using a logistic regression analysis to determine if a correlation existed between gender, prior access to programs sponsored by school, community, church, student and civic groups, and informal programs, and levels of interest in intercollegiate athletics, fitness, and sports activities. Variables were measured using a Likert-type scale, and closed questions were coded for use in determining the relationship between the variables. A logistic regression was used for the dependent variable, athletic interest level of FTIC freshman students, as it was a dichotomous variable, not normally distributed. The likelihood ratio chi-square test was used to determine the predictability of the two independent variables on the dependent variable of intercollegiate interest in athletics.

Delimitations

The boundaries and generalization of findings of the study were limited in several ways. First, the nature of the sample should be considered when attempting to generalize the results to other FTIC freshman students. This sample was gathered using a face-to-face survey of a sample of summer 2007 admits attending freshman orientation sessions during May and June of 2007 at the University of Central Florida. FTIC freshman students who attended freshman orientation sessions were assumed to answer the questionnaire in the same way as other FTIC freshman students attending similar public

universities in the state of Florida of comparable size. Secondly, it was assumed that FTIC freshmen surveyed prior to taking classes in the summer and fall semester were similar in demographic characteristics to FTIC freshmen who began school in the spring semester. The sample was further restricted to FTIC freshmen who attended the UCF-Orlando campus, a single Florida public university. Other FTIC freshman students were not surveyed across the state or country due to the researcher's limitations of time and financial resources.

Predictive findings from the study were limited. Other variables such as participation in sports prior to high school, family support of participation in athletics, and media propaganda were not addressed in the interest survey. These variables, which may be associated with students' interest level in athletics, may have had a confounding impact on the survey results.

Significance of the Study

This study was aimed at assessing whether the low participation rate by females in intercollegiate sports may be an artifact of the fewer opportunities provided to females in sports and may not reflect actual level of interest in athletics (Lopiano, 1994). This lack of opportunity may suggest that there are acceptable gender roles for females which may possibly contribute to females' lower level of interest and participation in sports. Increasing equitable athletic opportunities for students at all levels of education may encourage young females to develop traits, skills, and positive self-concepts that traditionally have been socially valued for males but are clearly important to success

across environments for both genders. The research of interest level in athletics of FTIC freshman students may change prevailing beliefs about females and their interest level in sports and focus attention on the need for consistent enforcement of Title IX legislation. In addition, the results of this study will provide school policy makers and community planners with data and information they can use to encourage and promote more female participation in athletic programs.

Organization of the Study

Chapter 2 contains a review of the literature on academic and athletic gender equity in educational institutions, and interest and participation in intercollegiate sports. Chapter 3 specifies the research design and methodology used to conduct the study. It includes a description of the sample and survey instrument used. Chapter 4 presents the analysis of the data. Chapter 5 concludes the study with a summary and discussion of the findings, interpretation of the analysis, and recommendations and implications for future studies.

CHAPTER 2 REVIEW OF THE LITERATURE AND RELATED RESEARCH

Introduction

This review of the literature provides the basis for conducting research on the relationships between the effects of gender and prior student access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on FTIC freshmen's intercollegiate interest in athletics. A search of literature across electronic library databases related to gender equity and athletics and academics was conducted using searches by subject, journals, articles, books, dissertation/thesis, government sources, educational websites, and educational statistics. Subject areas investigated included higher education, education leadership, chemistry, mathematics, athletic training, and educational research. Within these subject areas, specific databases such as Education full text, ERIC (EBSCOhost), Psych Info, Gender Watch, and Government Documents for Education were explored.

The chapter has been organized to review literature in the following areas. First, the research in regard to a dominant ideology specific to gender equity within educational institutions was reviewed as it related to male and female educational experiences that are shaped by both hidden and overt curricula. Literature highlighting subjects such as power and privilege and the hidden curriculum found within educational institutions was also reviewed. Gender equity and curriculum were then explored as they relate to gender differences and school experiences for males and females. Participation and interest in interscholastic and intercollegiate athletics were considered as part of Title IX legislation

establishing current trends in access to athletic opportunities. Specifically, literature reviewing gender equity in sports across interscholastic athletics has been presented with a focus on school-aged participation and interest in sports. Gender equity within intercollegiate athletics was explored with information on participation, interest, and resource allocation for sports highlighted. The chapter concludes with a summary of the information presented.

Gender Equity in Educational Institutions

Power and Privilege

As a result of the women's movement in the United States, gender discrimination in schools has been researched for many years. Various labels have evolved to describe gender inequity such as sexism and gender bias (Hall & Sandler, 1982; Tyack & Hasnot, 1990). Dominant ideologies, privilege, and power are commonly identified in the literature when describing gender inequity and its influence on education (American Association of University Women [AAUW], 1998; Brown, 2000; Johnson, 2001; Kimmel, 1989; Sadker & Sadker, 1995). Brown (2000) described the premises of power and privilege as ways to understand gender inequity, expressing the belief that one must understand "cultural patterns" (p. 158) and recognize larger systems where some individuals have advantage over others. Within educational institutions, power and privilege of the few emerge via two curricula; the overt and hidden. These curricula have been described by Apple (1978) as a sieve used to route people by class, and schools

concurrently teach different populations varied values and beliefs that are often based on class, race, and gender. Mostly unaware of this, schools engage in cultural and social reproduction of the current socioeconomic structure by recreating discrepancies between and among students that perpetuate power and control of the dominant group based upon race, gender, and class (Giroux, 1983).

Apple referred to Gramsci's (1971) description of hegemony as a foundation for explaining how this process occurs and why it is maintained over time. Hegemony is believed by Gramsci (1971) to drench a society's awareness, so that the educational, economic and social environments individuals acknowledge and intermingle with, and consequently attempt to make sense out of, become the only way to perceive things (Apple, 2004, p. 4). According to Apple (2004), hegemony refers to a dominant and accepted set of beliefs, values, and behavior or ideology, which are experienced by individuals and thought to be the true reality of the world. The "cultural pattern" or hegemonic ideology is evident within an institution when the knowledge or information generated by dominant groups becomes honored and is viewed as common sense and therefore is often unchallenged (Alvesson & Deetz, 2000; Fraser, 1997). Concomitantly, the beliefs of the dominated groups are ignored particularly when they consent to the current order characterized by unbalanced power relations. Apple (2004) discussed inequity within educational institutions as the indoctrination of individuals by a "false consciousness" (p. 18) where one's perception of social reality is twisted so as to meet the need of the dominant class in maintaining power and control. Subordinate groups, therefore, according to Apple (2004), consent to the dominant ideology or perceived

neutral values and beliefs as these are thought to be in the interests of society as a whole even when the ideology serves economic and political interests of the dominant group. This becomes a concern for stakeholders in educational institutions when they become content by assuming that currently available educational and athletic opportunities for males and females sufficiently attend to the notion of gender equity as an institutional value. This, in turn, may lead to an oversight of a comprehensive approach to implementing gender equity for all students and athletes. As gender equity is sometimes taken for granted, Alvesson and Skoldberg (2000) expressed the belief that questions should be asked that “are an insult to common sense. . . [and] promote a kind of thinking which differs radically from established modes” (p. 132), which then examines the subjective features of the production of knowledge.

Looking through a post-structuralist feminist lens, hegemony is acknowledged as “the gendered nature of knowledge production and the way it maintains and reinforces the power relationships between the sexes” (Fletcher, 1999, p. 21). In this method of gendered knowledge production, “advantage and disadvantage, exploitation and control, action and emotion, meaning and identity are patterned through and in terms of a distinction between male and female, masculine and feminine” (Acker, 1990, p. 146). In this way, gender hierarchies and differences are made to appear typical which, in turn, reinforces the interest of dominant groups (Fletcher, 1999). Gendered suppositions are entrenched within organizational ethos in areas including organizational values (Acker, 1990). These assumptions are powerful because they reinforce guiding principles and

define boundaries about what is expected within the institution (Alvesson & Billing, 1997).

Similar to other feminist theories, post-structuralist feminist inquiry involves challenging “inequitable relationships of power which involve gender” by examining meanings and organizational practices (Kenway, Willis, Blackmore, & Rennie, 1998, p. xviii). In addition, it realizes that power is situated “in systems of shared meaning that reinforce mainstream ideas and silence alternatives” (Fletcher, 1999, p. 17). Thus, if understandings of gender equity are shared, minimal effort will be made to support change. The purpose of post-structuralist feminism is to interrupt the status quo and established power arrangements by examining assumptions and creating conditions whereby alternative discourse can be used by individuals to construct new practices and meanings that reflect and endorse desired organizational values (Alvesson & Deetz, 2000).

The process of questioning and producing new knowledge within institutions, is identified by Fletcher (1999) “as an exercise in power where only some voices are heard and only some experience is counted as knowledge” (p. 22). Given this implication of a relationship between organizational members’ ideas of gender inequities and power, some explanations of gender inequity are viewed as “the status of objective knowledge” (Scott, 1990, p. 136) and are difficult to dispute. Constructing meanings then involves selecting certain words and excluding alternative definitions (Fletcher, 1999). Power is then, according to Acker (2000), used to create organizational logic within the institution. These generally understood rules or expectations are further used to shape

“what can and cannot be said; what constitutes the mandatory, the permissible, and the forbidden; and the boundaries of common sense” (Jacobson & Jacques, 1997, p. 48).

These rules are powerful because when they are used as explanations for the differences between current practice and espoused gender equity within educational institutions, they appear to be normal, apparent, and free from examination (Fletcher, 1999; Martin & Meyerson, 1998). Although the explanations appear permanent, some believe over time or across environments, there is potential for the meanings to be questioned and changed (Alvesson & Deetz, 1996; Kenway, Willis, Blackmore, & Rennie, 1994; Scott, 1990).

To further understand how the production of knowledge can be changed via a post-structuralist feminist perspective, it is important to define ways that exclusionary power can be used within institutions. Exclusionary power is defined by Rao, Stuart, & Kelleher (1999) as the notion that not every member within an institution has access to the power or can use it because the power dynamics are gendered. As a result, exclusionary power can be used to influence the production of knowledge regarding gender equity via positional power, agenda-setting power, hidden power, and through the power of dialogue (Rao et al., 1999). Positional power is associated with one’s official standing and title within an institution, and it can be found within every position according to Rao et al. from those in upper management to lower positions within institutions, such as student athletes. In cultures where males dominate the upper management or leadership positions, greater access to decision-making authority and resource allocation enables them to influence the dominant understanding of what it means to be equitable across gender. Several researchers have found that executive

directors and other leaders within national sport organizations expressed the belief that their organizations were meeting gender equity legislation, denied the existence of gender inequities, or suggested that gender equity was immaterial to them (Hall, Cullen, & Slack, 1989; ; Shaw, 2001). Given these attitudes toward gender equity, many leaders with high levels of positional power would not focus much attention toward the topic. Those in lower positions, e.g., student athletes, would simply have the power to leave the institution with little to no impact on the institution.

Another way to exercise exclusionary power within an institution is to establish unofficial margins around acceptable and unacceptable issues for debate via agenda-setting (Rao et al., 1990). For example, several researchers found that many male administrators of national sport organizations denied the existence of gender inequities within their institutions. As a result, the topic was not included on agendas, thereby removing attention from the issue altogether (Hall et al., 1989; Shaw, 2001). If gender equity is not viewed as a problem, it will most likely not be a topic open for discussion.

Hidden power could be likened to Apple's (2004) description of the indoctrination of individuals by a "false consciousness" within educational institutions. Hidden power is evident when those who are subjugated do not realize their predicament and therefore do not question dominant knowledge and routines even when there are obvious inequities (Rao et al., 1999). Power in this situation is maintained because subordinates within the institution consent to the dominant ideology because it seems typical, reasonable, or inevitable (Alvesson & Deetz, 2000). This has been demonstrated in studies identifying female athletes and administrators who acknowledge their inferior

status and gender inequities within the institution but did not indicate that they had experienced discrimination personally (Blinde, Taub, & Han, 1994; McClung & Blinde, 2002). If those who are marginalized accept their situations regardless of evidence to the contrary, advocating for change is difficult.

The final way that exclusionary power is utilized is through the power of dialogue as described by Rao et al. (1999). Exclusionary power refers to both those individuals who are consulted and heard in meetings and discussions as well as those who are ignored or whose views are suppressed. Athletes, as a collective voice within the institution, are infrequently included in the official decision-making process even though they are the main recipients of institutional athletic efforts. Instead, higher level administrators and directors who have positional power are consulted because of their participation in policy development and institutional decision-making (Hoeber & Frisby, 2001). Others have noted that for meaningful and functional change that results in the production of new knowledge to occur, many individuals, not just those with positional power, must be included in the dialogue (Fletcher, 1999; Kolb & Meyerson, 1999).

An example of exclusionary power was documented by Hoeber (2007) who conducted a study to investigate the espoused organizational value of gender equity in a university athletic department. Using in-depth interviews from athletes, administrators, and coaches, along with direct observations of athletic practices and games, and analyzing pertinent documents, Hoeber (2007) found a gap between respondents' espoused gender equity and what was enacted within the department. Moreover, athletic department members with various levels of positional power, agenda-setting power, and

those with power of dialogue not only denied that gender inequities existed but rationalized the inequities which were thought to protect the status quo (Fletcher, 1999). Hidden power appeared to be evident as the knowledge of gender inequities was honored and not questioned by all levels of personnel within the athletic department (Hoeber, 2007). The production of knowledge regarding gender equity within the athletic department was powerful enough to create a hegemonic system where some ideas were viewed as common sense and others that deviated from this norm were ignored (Alvesson & Deetz, 2000; Fletcher, 1999). Hoeber (2007) concluded that members of this athletic department understood these inequities to be expected, natural, or typical, and “difficult to challenge because it is rationalized and embedded within the organizational culture” (Green, Parker, & Hearn, 2001, p. 203).

Gender Inequities: K through Post-secondary Educational Experiences

Investigations of kindergarten through post-secondary educational institutions (AAUW, 1992, 1998a, 2008; Sadker & Sadker, 1995) have broadened the understanding of how gender inequities lessen educational quality for females and males. Education is not gender neutral, and females and males do not have similar experiences. Taking both the overt and covert curricula, Apple (2004) described how materials, content, classroom structure, organization, activities, and relationships within American schools work to maintain cultural consensus while allocating individuals to their proper place within the capitalist system.

Hidden Curriculum

As only one part of the educational system and seemingly unknowingly, educators play a pivotal role in perpetuating the dominant social structure of society via the hidden curriculum, and students are expected to obey the rules of the cultural behavior of schooling (Mickelson, 1987). Eisner (1979) described the hidden curriculum as the “hierarchical organization, one-way communication, routine, in short, compliance to purposes set by another” (p. 77). Educators act as “skillful technicians” (Aronowitz & Giroux, 1985, p. 142) by engaging in the “school’s debilitating practices” (Jackson, 1992, p. 314). They choose which parts of the formal curriculum they will present, how they will teach the curriculum, how they organize classroom routines, and interact with students. Teachers’ behavior within the school context is thus a critical component of the social reproductive process in schools (Mickelson, 1987).

In the literature, the hidden curriculum has been defined based upon four basic understandings (Portelli, 1993). The first understanding is based upon Jackson’s (1968) claims that educators do not really know or understand what actually occurs in classrooms. He described three factors that are embedded in the context of schools which include crowds, praise, and power. The term, crowds, is used to depict the nature of the classroom where students are expected to wait patiently, accept not getting their desires met, and learn in an environment with distractions (Marsh, 1997). Praise describes the incongruous loyalties required to both teachers and peers while power defines the unequal relations given to the teacher over students (Marsh, 1997). These factors are thought to promote cultural traditions and values that “collectively form a hidden

curriculum which each student must master if he is to make his way satisfactorily through the school” (Jackson, 1968, pp. 33-34). Portelli (1993) defined the hidden curriculum as “the sum total of unofficial institutional expectations, values and norms aimed at by educational administrators and perhaps teachers and to a lesser extent parents, and which are initially completely unknown to the students” (p. 345). Teachers reinforce the hidden curriculum by expecting and tolerating only compliant students regardless of students’ ability to follow classroom rules and daily routines. Demanding these specific behaviors of students, educators prepare students for further conformity to institutions other than the public school, ultimately attempting to shape worker behavior. Students who have difficulty detecting and meeting the demand for institutional conformity due to the implicit expectations or unspoken messages not being systematically taught and communicated, suffer by being denied access to the typical, formal curriculum which paves the way for future prosperity and higher social status (Portelli, 1993).

The second understanding of the hidden curriculum was depicted by Snyder (1971) as students’ responses to the overt curriculum which evolve over a period of time after experiencing repeated exposure to the formal curriculum. Snyder believed that students assist in creating hidden messages by reacting to the rewards and sanctions provided within the school context. Moreover, students’ reactions to teaching practices in turn, shape teachers’ decisions about their classroom activities (Cusick, 1983; Powell, Farrer, & Cohen, 1985). Teachers therefore, are typically socialized by their students as to how to teach, and they, in turn, socialize their students for various positions in the social relations of production (Metz, 1978).

Illich (1978) and Aronowitz & Giroux (1985) described the third understanding of the hidden curriculum as implicit messages sent and received by individuals within the school setting that function to reproduce the social structure of the school. According to Illich (1976), the hidden curriculum of schools demands that children of a certain age come together in groups under the leadership of a professional teacher for a specified amount of time in order for students to acquire their civil rights. Participating in and supporting this ritual of schooling, therefore, justifies the existence of the educational institution and its social structure. This ritual, according to Illich (1973) ensures the privilege of some at the expense of others.

Finally, McLaren (1998) described the fourth understanding of the hidden curriculum as the “unintended outcomes of the schooling process” which he identified by critically investigating the behavior of individuals, events, and activities, that occur outside of formal instruction and content-material found in classrooms (p. 186). Unsanctioned or sanctioned by the school, these learning experiences of the hidden curriculum perpetuate the dominant culture’s values regarding one’s social status based upon ethnicity, economics, gender, political views, and disabilities. Often, these unintended outcomes remain concealed, unarticulated, and unrecognized by educators or students, thereby perpetuating the hidden curriculum and maintaining the social status of those in power (Portelli, 1993).

As there is considerable agreement to the mere existence of a covert curriculum that is taught to all students in all schools (Overly ,1970) clearly defining the hidden curriculum is a challenge as it may not be obvious and may change in typography.

Martin (2002) described the challenge of developing a comprehensive definition of the hidden curriculum as she attempted to list all of the elements of the school's hidden curriculum:

On my list were school rules, its social structure, its physical layout, the role models it provides, teacher-pupil relationships, the games played, the sanctioned activities, textbooks, and audiovisual aids, furnishings and architecture, disciplinary measures, timetables, tracking systems, curricular priorities. I finally came to the conclusion that I had set myself a never-ending task. (p. 60)

Clearly the concept of the hidden curriculum has various interpretations.

However, the hidden curriculum has typically been associated with the learning of knowledge, attitudes, norms, beliefs, values, and assumptions (Seddon, 1983). These attitudes and values are communicated inadvertently, automatically, and inevitably as a consequence of participating in the official, routine activities of the school (Kirk, 1992). These attitudes and values typically mirror the prevailing philosophy of the dominant cultural group (Cornbleth, 1984; Gordon, 1983) and may be viewed as positive or negative depending upon the models provided, one's values, and place in the social structure of the institution.

Understanding of the hidden curriculum in the 21st century has evolved from a changing social context where the role of public education has been refined from establishing social control to ensuring the reproduction of social classes and socioeconomic status of generations of students. The hidden curriculum was included within the formal curriculum in 19th century school contexts as a way to create social control (Digiovanni, 2004). Educators and administrators vigilantly monitored the school environment expecting academic and behavioral conformity from students. This was due

to the desire of the government for public education to create more homogeneous citizens in order to maintain the established union of the states (Vallance, 1973). The intent of the curriculum was to shape individuals' behavior and force values upon the public by establishing the common school and utilizing textbooks such as the McGuffey Readers (Digiovanni, 2004). Hirsch (1987) identified almost total similarity of values within public schools during this period, and Ryan (1987) identified how the McGuffey graded reader series was used to indoctrinate obedience, good behavior, promptness, regard for authority, and other widely held social customs.

Instruction during the post-Civil War period was further regimented with educators feeding facts of information to the perceived, empty minds of students who were organized, quiet, submissive, and typically well behaved. Many of these students were recent immigrants who were just learning about life in America and the expectations of American students which included learning how to be a part of the work world, to be compliant, to be regulated to time in segments, and to be dulled to routine (Anyon, 1990; Apple, 1995). The public schools appeared to function much like a factory (Apple & King, 1983), emphasizing conformity to the institution. The result was reproduction of the social class structure.

During the late-19th to mid-20th century, educators such as Dewey, Kilpatrick, and Rugg introduced a new way to think about public education which contributed to major changes in curriculum (Wren, 1999). During this time, public schools removed most religious content from the curriculum which resulted in educators who were uneasy with the traditional role of teaching values and caused them to rely on the school environment

to shape student socialization (Vallance, 1973). Eisner (1985) commented on the school's reliance on this hidden curriculum, noting that "Schools teach far more than they advertise" (p. 92). Owens (1987) concurred, stating that the culture of schools reflected in typical activities such as school traditions, customs, and rituals had become "the values that are transmitted literally from one generation of the organization to another" (p. 168) via the hidden curriculum. Hlebowitsh (1994) attributed this to schools' encouraging empowering and disempowering behavior.

Although some educators may be unaware of their role in perpetuating the social reproduction process via the hidden curriculum, a large portion of educators are aware of race, class, and gender inequalities within educational practice (Mickelson, 1987). Researchers exploring the working-class and minority youth culture have identified a gap between the assurance of education, moving up in socioeconomic status, and meaningful employment and the decreasing ability of consumer-driven economies to afford the opportunity for individual advancement (Griffin, 1985; Weis, 1985; Willis, 1977). Anyon (1980) suggested that schools are actually isolating students and preparing them for class struggle.

Given the notion of a hidden curriculum within educational institutions, educators could become social change agents themselves by empowering students and altering the larger social order in the interest of fairness and equal opportunity (McLaren, 1994) and by acknowledging the hidden curriculum and engaging in emancipatory pedagogy (Freire, 1970; Giroux, 1981). Because education relies upon communication between teacher and student, among students, and with the formal curriculum, an educator's

primary responsibility lies in understanding and shaping the social contexts for classroom communication. This responsibility is an opportunity for change and may be accomplished according to Giroux (1992) by encouraging and facilitating border pedagogy where existing boundaries of knowledge are questioned and new boundaries of knowledge are created. To do this, Giroux (1992) suggested educators include experiences and perspectives of those individuals and groups previously excluded from the curriculum. Students, according to Giroux, (1992) should be provided with opportunities to dialogue and challenge existing values and mores similar to the way Fletcher (1999) and Kolb & Meyerson (1999) envisioned meaningful organizational change to occur. This involved new knowledge being created by many individuals dialoguing about the inequalities and need for change. In freeing students from the customs and traditions of the dominant cultural group, educators not only enhance equality and enrich education, they further their knowledge base and change their own personal behavior that socializes students. However, as Sarason (1971) noted, educators may not be effective change agents in the social reproduction process, because they would be required to change typical pedagogical practices that embody the implicitly held cultural norms and practices that make life sensible and meaningful. The idea of changing may be impossible for most people as it presents them with the overwhelming task to change their thinking, their behavior, and the overall organization of the setting (Sarason, 1971).

Gender Equity and Curriculum

As an imbalance of power and privilege found in the interaction between individuals within educational institutions has been described, evidence of gender bias within the curriculum has been documented in research studies and was apparent in the passage of the U.S. Department of Education Title IX Amendment of 1972 which prohibited gender discrimination in education programs and activities provided by institutions that receive federal funding (Flansburg & Hanson, 1993). Outcomes of this legislation have resulted in mixed findings where the social context of curriculum reform ensuring gender equity has been debated. In a 1992 report entitled, *How Schools Shortchange Girls: The AAUW Report*, the AAUW identified continued and extensive bias against females in the typical educational arrangement. This bias was determined to persist regardless of the established legislation enacted 20 years prior which was hypothesized to influence educational success and opportunities. As equity is concerned with opportunity and outcomes; “an equitable education is one that fosters high achievement for all students, regardless of their gender, class, race, or ethnicity” (AAUW, 2008, p. 1). In turn, this has led to an overall perception of educational institutions “failing at fairness” for all students (Sadker & Sadker, 1994). Another study conducted by the AAUW (2008) confirms progress has been made toward equitable treatment of males and females within educational institutions since the 1992 AAUW report, however concerns still linger. For example, patterns of unequal support and attention to students have been found to be common in typical classrooms beginning in preschool and continuing through higher education (Mael, 1998; Sadker & Sadker, 1994).

Younger and Warrington (1996) reported that males by and large receive more teacher attention than females although most teachers believe they treat females and males equally. This disparity is attributed to socialization practices where males are socialized to expect and obtain more attention than females, and females expect and receive significantly less attention than males (Williams, 1993). These expectations create systemic gender inequity in schooling and contribute to lower academic achievement and poor self-concept for female students placing them in subordinate roles in which they continue to receive unequal treatment (Zaher, 1996). These unyieldingly defined sex-role standards are damaging as they limit the behavior of both genders, ensuring the power of one gender over another (Gilligan, Lyones, & Hanmer, 1989; Harter, 1998; Klein, 1985).

Feminist scholars, members of the women's movement, and female teachers who valued the education of females provided the social context for research and reform of the curriculum in the 1970s (Coulter, 1996). Their policy initiatives and lobbying efforts influenced curricula research and reform targeting equal education for all students. Moreover, the introduction of women's studies courses at universities provided vernacular and theory to explain gender equity issues (Coulter, 1996). This foundational understanding of gender relations grew to include concerns about females in science, mathematics, and technology in the 1980s, although heightened concerns about employment and the economy detracted from further reform during this time (AAUW, 1992). This deterioration of attention to systemic gender inequities in schools led to a focus on economic restructuring within the public sector resulting in reduced social spending (Brodie, 1995, 1996; Dacks, Green, & Trimble, 1995) and attacks on public

education. Ultimately it led to various forms of resistance to gender equity curriculum initiatives (Kenway, 1995).

Curricula reform activists in the 1990s had to shift their focus from gender equity to new requirements for student achievement. Researchers, however, have identified a relationship between accountability and standardized testing to equity issues (Skria, Scheurich, & Johnson, 2001). Specifically, accountability systems have been thought to play a pivotal role in decreasing the achievement gap between students by forcing schools to focus on the revealed inequities among students (Herr & Arms, 2004). In addition to this shift, the mid-1990s saw an examination of gender equity focused on the adverse effects of gender biased curriculum on male students (Weaver-Hightower, 2003). Numerous concerns of educators, families, and curriculum developers for the future and prosperity of male students was addressed in literature and research.

Gender equity within specific content areas such as science, technology, engineering, and mathematics (STEM) was explored in the mid to late 1990s and early to mid-2000s by feminist researchers, theorists, and curricula reformers (AAUW, 2010; Becker, 1995; Boaler, 1997; Johnston & Dunne, 1996; Walkerdine, 1998; Willis, 1995, 1996). This was due, in part, to the link between mathematics and additional post-school opportunities for students (AAUW, 1998a, 2008, 2010; Walkerdine, 1998; Willis, 1995). These efforts targeted pedagogy, the social position of STEM education, and the curriculum (AAUW, 2010; Kenway & Willis, 1998; Walkerdine, 1998; Willis, 1995).

In institutions of higher education, according to a 2010 report of the AAUW, fewer women than men have been found in subject areas such as engineering, physics,

chemistry, and computer science even though in elementary and secondary schools, females and males have tended to take science and mathematics classes in approximately equal numbers. In contrast, fewer men than women can be found in nursing, teaching, library science, or social work (U.S. Department of Education, 2002a). Similar to athletics, isolated academic subjects, e.g., science and mathematics, and specific careers (engineers and researchers) were identified as “masculine” by numerous educators and school advisors (Damarin, 2000). For many years, females were dissuaded from customarily perceived masculine fields such as science and mathematics (Sax, Arms, Riggers, & Eagan, 2009) due to the conviction that males were prewired for mathematics and science success, but females inherently disliked and maintained less aptitude for these subjects (Halpern, Aronson et al., 2007; Hyde & Mertz, 2009; Kiefer & Sekaquaptewa, 2006, 2007). However, a 2010 AAUW report addressing the small numbers of women in the science and mathematics areas identified research findings demonstrating evidence of social and ecological variables contributing to the under representation of females in these subject areas.

Researchers have found gender bias in the mathematics curriculum. Hong, Lawrenz, and Veach (2005) conducted interviews with female students who reported that “Some of our teachers didn’t really support us to take science, mathematics, or the techniques for our future career searching,” (p. 160) and contributed to an under representation of females in the advanced high school mathematics classes. These low expectations transferred from teachers to students have been thought to lower females’ beliefs in their skills and abilities in a certain domain as well as decrease the value female

students place upon themselves (Wigfield, 1994; Wigfield et al., 1997). Moreover, researchers have found that female interest in science, technology, engineering and mathematics (STEM) fields may be influenced by overarching cultural beliefs that such subject areas are more appropriate for males than females (AAUW, 2010). Previous research on self-assessments of this nature indicated that even if one does not personally believe that one gender is better than another gender at mathematics, the awareness that such beliefs exist in the wider culture coupled with the expectation that others will treat individuals accordingly has been demonstrated to have an effect on perceived ability and future interest (Foschi, 1996; Lovaglia, Lucas, Houser, Thye, & Markovsky, 1998; Steel, 1997). Correll (2001) found student self-assessment levels of mathematical ability influenced future choice to enroll in advanced mathematics classes in high school and choice of major in a STEM field in college. Further investigation by Correll (2004) confirmed that when traditional beliefs about male dominance occur across any domain, even a fabricated one, females tend to evaluate their skills in that area lower, assess themselves by a higher standard, and convey less of an interest in that career path than males.

In their research, Nosek, Banaji, and Greenwald (2002) noted the powerful influence of the subconscious mind as it relates to perpetuating gender and science stereotypes. Unconscious beliefs or unspoken biases have been thought to be more powerful than overtly held values in that these fundamental negative stereotypes continue to impact norms held about people and their behavior. It is these unconscious beliefs

used to help explain “how good people end up unintentionally making decisions that violate even their own sense of what’s correct, what’s good” (AAUW, 2010, p.76).

A study conducted by researchers from several countries further demonstrated this idea of implicit bias affecting interest in mathematics and science. Nosek et al.(2009) hypothesized that stereotypes associating science with males may produce gender variances in performance among students. The gender differences in performance may, in turn, strengthen the stereotypes linking science with males. Results of this study indicated a positive link between the inherent gender-science stereotype of the country and the gender variance in eighth-grade science TIMSS scores. In particular, the more robust the link between science and being male is in a country, the greater the male performance scores in science (Nosek, et al., 2009). Researchers could not, however, conclude whether females’ lower science scores created the implicit stereotype associated between gender and science or whether the resilient gender stereotype resulted in lower science scores by females. Some have expressed the belief that it is the latter (AAUW, 2010).

The sentiment linking societal beliefs and one’s learning environment to achievement and interest in science and mathematics has continued into the present. According to a 2010 report of the AAUW, females do better on mathematics tests and report an interest in continuing mathematics studies in the future when educators and parents communicate their support for female students’ potential for intellectual growth in these subject areas. When exposed to negative stereotypes about their abilities in mathematics, females experience noticeably lower test scores in mathematics, referred to

as stereotype threat (Steel & Aronson, 1995), and lower interest in pursuing careers in related fields. Stereotype threat involves the threat of being viewed by others via a lens of a negative stereotype or the fear of behaving in a way that would validate that stereotype. This phenomenon has been reported in the literature to affect even those females who tend to identify themselves as good at mathematics and related subject areas (Nguyen & Ryan, 2008). In addition, recurring exposure to stereotype threats have been linked by Steel and Aronson (1995) to declining interest via a process called disidentification (AAUW, 2010). It is through this process that females become defensive and as a result avoid the risk of being compared to the negative stereotype. This can lead to avoiding mathematics and science subjects entirely. Although a finding true for all students, those who experience negative stereotypes about mathematical ability are likely to find this more helpful in overcoming traditional gender-role stereotyping.

For many females, this has limited educational opportunities leading to technical and scientific careers. According to an AAUW Report (2008), a noticeable gender gap has persisted in physics, with female enrollment well behind that of males. More females have, however, enrolled in Algebra I, Algebra II, Geometry, Precalculus, Trigonometry, and Calculus. Moreover and contrary to the opinion that females are not interested in mathematics and science, the National Science Foundation reported in 2006 that women earned 78% of bachelor's degrees in psychology, 62% in biological sciences, 51% in chemistry, 46% in mathematics, 25% in computer sciences, 22% in physics, and 21% in engineering in 2004. As recently as 2010, a report of the American Association of

University Women identified a decline in women earning bachelor's degrees in computer science from approximately 36% in the mid-1980s to 20% in 2006. This represented an additional 5% (approximate) decline from data reported in 2004 to data gathered in 2006. These results continue to support the findings of Halpern, Aronson et al. (2007) in which women were noted as earning fewer graduate degrees in science and mathematics fields and not choosing careers in mathematics and science to the same extent as men.

The AAUW reports of 2008 and 2010 identified that gender differences still exist within K-12 educational institutions in the types of courses taken with males often taking more advanced courses than females. In regard to other subject areas, both reports identified females as comprising a small portion of students in computer science and computer design classes. These college-bound females have been found by the National Science Board (2010) to be less likely to choose STEM majors even though they successfully graduated from high school with the necessary skills. Females were more likely to enroll in basic clerical and data-entry classes rather than advanced computer science and graphics classes, and this has led to an emerging new gap between genders. This has occurred over the years even though females and males reported being equally interested in and utilized computers and equipment for communication and educational activities (Singh, Allen, Scheckler, & Darlington, 2007). Of those female students who have chosen a STEM major, many have reported less confidence in their mathematics or science skills and in their ability to achieve academically (Seymour & Hewitt, 1997; Cohoon & Aspray, 2006). As a result, female science majors have been found to leave the major twice as many times as their male counterparts (Margolis & Fisher, 2002).

In addition to taking fewer classes, female students have been less likely to come across dominant, dynamic female role models in computer games or software used within mathematics, science, and computer science/design classes. Rather, they have often been exposed to software programs depicting stereotypical gender roles (AAUW, 1998a; Hodes, 1996). However, computer-generated engineering narratives were found by Plant, Baylor, Doerr, and Rosenberg-Kima (2009) to increase interest level of middle school females. Positive statements about student abilities counteracted typical stereotypes of engineers leading female students to recognize the career as people-focused and socially beneficial, characteristics thought to be more appealing to female students. Females, however, have been identified as taking more English courses with the exception of remedial English, where males tend to outnumber females. Females also tend to take more sociology, psychology, foreign languages, and fine arts classes than males (AAUW, 1998a, 2010).

In regard to test taking, males have been found to score higher than females on several tests including the National Assessment of Educational Progress (NAEP) for science and mathematics subject areas and the SAT and ACT (standardized college admissions tests) (AAUW, 1998a, 2008, 2010). The AAUW (2010) report did, however, note an increase in number of females achieving very high scores on mathematics tests once thought to measure innate ability. In the 1980s, 13 times as many males as females scored above 700 on the SAT mathematics exam. In the first decade of the 21st century, the gap has decreased and the ratio has dropped to approximately 3:1 (Brody & Mills, 2005; Halpern, Benbow et al., 2007). This change, as suggested by some researchers, is a

result of societal expectations where educational opportunities can and do impact mathematics achievement rather than being derived from biological differences between genders (Halpern, Benbow et al., 2007; Hyde & Mertz, 2009).

This small, yet, persistent test-score gap between genders is evident on both the SAT and ACT with the largest gap on the SAT favoring males on the mathematics examination (AAUW, 1998a, 2008, 2010). Researchers have indicated that stereotype threat affects females' mathematics performance on such tests (Nguyen & Ryan, 2008) and may explain an almost 20-point difference on the mathematics portion of the SAT (Walton & Spencer, 2009). By eliminating stereotype threat, some argue that approximately two-thirds of this gender gap could be eliminated (AAUW, 2010).

In regard to the ACT, males have tended to earn higher composite scores than females and tended to score higher in the mathematics and science sections. In contrast, females performed better on the English and reading portions (AAUW, 1998a, 2008). It remains unclear as to why this difference has persisted. Some explanations in the literature include biological gender differences, test bias, anxiety associated with test taking, relationships with peers, and differences in courses taken prior to taking the standardized test (AAUW, 2008; Korbin, Sathy, & Shaw, 2007; Young & Fisler, 2000).

Over the years, research and policy initiatives focusing on decreasing gender inequities in education have been evident in reports conducted by special interest groups. One example of this was the gender equity support document released by Ontario's Ministry of Education and Training (1994). Recommendations were provided for a transformed curriculum inclusive of females requiring a "rethinking (of) the content,

form, and context of curriculum” (p. 4). Examining and questioning the reasons behind and patterns of gender discrimination were suggested if reform was to include substantive changes to the education of all students. Specifically, changes in the curriculum were expected to support gender neutral strategies that identify unfair power relations between females and males and take into consideration the entire social context (Ontario Ministry of Education and Training, 1994). A 1992 report of the AAUW indicated that “public schools are making progress toward equitable treatment of boys and girls” (p. 2) but also advised that more attention needed to be focused on the impact public schools have on gender relations. According to Coulter (1996), this entailed a closer examination of the curriculum to determine if student needs were being met by educational institutions. This would enable movement beyond simple questioning of whether each gender receives similar things to a better understanding of systemic gender inequity, gender relations, and patriarchy as evidenced in public schooling.

The AAUW conducted several studies (1992, 1998a, 2008, 2010) off the typical curriculum to which public school students are exposed. Three critical areas for reform were identified. These included (a) the formal curriculum, (b) the classroom as curriculum and (c) the evaded curriculum. Specifically, these three perspectives reflected gender inequities found in instructional materials, classroom interface and language use, teaching customs, assessment methods, gender dynamics among students, among teachers, and between teachers and students, sexual harassment in schools, the inherent view of the definition of education, and whom education should serve (AAUW, 1992).

Numerous aspects of a student's formal experience within a typical public school setting, i.e., curricula, perpetuate and reinforce gender inequities.

Gender Differences and School Experiences

One perspective of gender differences within the curriculum is developed around experiences students have in school, particularly events that occur within the classroom setting. Interactions between teachers and students and among students are critical components of one's education, ultimately shaping the views students have of themselves and those of the opposite gender (AAUW, 1992). Teacher-student interactions include the allocation of teacher contact as well as the content of interactions provided to female and male students in the classroom. Both contact and content of teacher-student interactions are reported to be unequally divided among female and male students with male, white, and non-disabled students receiving more frequent and more meaningful interactions than female, non-white, and disabled students. More dynamic students have been found to draw more attention from educators than students less active in the classroom (Jones & Dindia, 2004; Montague & Rinaldi, 2001). For example, Sadker, Sadker, and Steindam (1989) reported that males demand and get more attention from teachers beginning in preschool and continuing throughout their educational careers. In addition to providing more responses to male students, educators have been viewed as more likely to seek engagement from males than females in the typical classroom (AAUW, 1992; Altermatt, Jovanovic, & Perry, 1998; Good & Brophy, 2003; Jones & Dindia, 2004). This was evidenced in a Chicago vocational workshop class where

females reported their teacher as encouraging male students to actively learn by doing projects but told female students to sit quietly and refer to their textbooks (AAUW, 2000). This “silence of girls from grade school through graduate school” (Sadker & Sadker, 1994, p. 90) was also evident in classroom quarrels where twice as many males as females have been found to engage in verbal disputes with teachers when they thought they were in the right.

Teacher-student interactions also differ with respect to the types of feedback from teachers for males and females (Gray & Leith, 2004). For example, males have been identified as receiving more useful and significant comments related to learning and their behavior from teachers than their female counterparts (AAUW, 1992). Marshall and Smith (1987) found teachers provided males with more specific details about how to enhance their academic skills but simply scored females’ work as right or wrong.

Additional research studies conducted between 2002 and 2010 have supported earlier findings about teacher-student interactions as an important factor in student motivation and further success in any realm (AAUW, 2010). Researchers have studied a growth mindset versus a fixed mindset. Students with a growth mindset have viewed their intelligence as dependent upon their effort which leads to perseverance in the face of adversity and ultimately achieving success. Students with a fixed mindset view their intelligence as innate and unchangeable which leads to poorer performance and lack of interest in the subject (Blackwell, Trzesniewski, & Dweck, 2007; Dweck, 2006, 2008; Dweck & Leggett, 1988). According to the 2010 AAUW report, messages sent to students about their intelligence can make a difference in how abilities are perceived,

especially when in an environment that encourages and supports traditional stereotypes. Mathematics skills are likely to be viewed as fixed (Williams & King, 1980), Researchers have tested the growth mindset versus fixed mindset theory within this subject area and found the motivational framework of the student, i.e., growth or fixed mindset to determine improvement in mathematics grades; with growth mindsets leading to improved academic performance and fixed mindsets leading to no improvement or poorer performance over time (Dweck, & Leggett, 1988). Blackwell et al. (2007) further investigated this theory by testing whether or not an intervention teaching students that intelligence can be changed would influence their motivation in school. Findings were remarkable with those students being taught the intervention, as they reversed their poor mathematics performance within a few months of receiving the intervention.

In additional studies of high school and college students with fixed mindsets, males outperformed females in mathematics and science. At the same time no difference was found among peers who reported having a growth mindset (Dweck, 2006; Good, Aronson, & Inzlicht, 2003; Grant & Dweck, 2003). In another study conducted by Good, Rattan, and Dweck (2009) it was determined that a growth mindset encouraged better academic performance and increased desire to continue in STEM fields for females taking a college calculus class. The women who reported teacher-student and student-student communications of a fixed mindset along with negative stereotypes throughout the semester were more likely to lose interest in mathematics. They reported they were less likely to take another mathematics class than those women who reported growth mindset communication between teachers and students alike. The results of these studies

provide evidence that the learning environment, specifically, what is communicated about student abilities are important. They can influence whether or not females perform well and maintain interest in academic subjects typically thought of as masculine or better suited for males. A growth mindset may protect females from the powerful influence of the stereotype that boys are better at certain things than girls (Good et al., 2003, 2009).

Clearly, there is a body of evidence identifying gender inequities between males and females found within academia and educational institutions. Gender bias, according to Sadker and Sadker (1995), functions as “a syntax of sexism so elusive that most teachers and students [are] completely unaware of its influence” (p. 2). Gender bias within the school environment is ubiquitous and usually unintentional. However, gender inequity results in schools, as institutions, teaching specific values, ideas, culture and political meanings of the dominant group to students via the formal and hidden curricula. Although not the intent of educators or students, gender expectations and assumptions are reproduced without thinking where the notions of masculine versus feminine attitudes, characteristics, choices, tendencies or pursuits can inhibit both genders from exploring a range of interests (AAUW, 2010).

Gender Equity in Sports

Athletic opportunity within educational institutions is yet another dimension of the educational experience where gender equity has been researched and reported. As discussed earlier, hegemonic ideology is thought to permeate all aspects of educational institutions. This includes the sports arena where “sport, like any other practice, is an

object of struggles between the fractions of the dominant class and also between the social classes” (Bourdieu, 1978, p. 826). Gender inequities evident within educational institutions led to the development and enactment of Title IX legislation in 1972 which prohibited discrimination based upon gender. This, according to some, was a way to alleviate the disparity of athletic opportunities available to females and males (Wushanley, 2004). Title IX requires equitable treatment of students in and out of the classroom and includes all programs, activities, and opportunities offered by schools that receive federal funding. Students must receive equitable treatment in the following areas: (a) athletics, (b) career education, (c) counseling and counseling materials, (d) course offerings, (e) discipline, (f) employee assistance, (g) extracurricular activities, (h) financial aid, (i) housing and facilities, (j) marital and parental status, (k) pregnant and parenting students, (l) scholarships and honors, (m) sexual harassment, and (n) student health and insurance benefits (National Collegiate Athletic Association, 2008). Given the scope of this research, the following section of the literature review will focus on gender equity in interscholastic athletics as offered by educational institutions.

Gender Equity in Interscholastic Athletics

Prior to the enactment of Title IX legislation in 1972, most families of school-aged children looked to school and community-based athletics as an opportunity for males, more than females, to engage in physical activity. However, since 1972, attitudes and general beliefs regarding access to and benefit of participation in sports for all students have changed. Opportunities to participate in sports within educational

institutions have increased although not equally across genders (Sabo & Veliz, 2011) with females receiving fewer opportunities to participate in high school athletics (Simon, 2005).

Benefits to participating in sports have been documented early in the literature and research on sport. de Beauvoir (1952) commented on the notion of authority and power which enables athletes to influence others: “To climb higher than a playmate, to force an arm to yield and bend, is to assert one’s sovereignty over the world in general” (p. 331). Participation in sports has been reported to help athletes develop leadership skills that surpass the sports arena (Chawansky, 2005). Researchers have indicated athletic participation not only improves academic achievement, but often leads to enhanced student self-image and overall student health (Oglesby, 2007; Sabo & Veliz, 2008; Suggs, 2005; Thomas, 2008). Benefits of participation in sports, often hailed as preventative means to decreasing the rising rates of international obesity, have led to additional research on participation and interest in athletics within educational institutions (Gorely et al., 2011; Sabo & Veliz, 2008). However, some researchers have reported a concern for the lack of reliable data and research necessary to effectively inform policy and practice surrounding gender equity in U.S. high school athletics (Sabo & Veliz, 2011), thereby reinforcing the hegemonic ideology that is found within academic contexts in educational institutions. This ideology allows the status quo of gender equity in sports to continue.

In 1971, approximately 5% of the total number of individuals participating in high school sports were females (294,015) or 1 female for every 12 males. In 1978, this

percentage increased to 32% or 2,083,040 (Carpenter & Acosta, 2005). Female high school athletic participation continued to increase and in 2002-2003 accounted for 41% of total high school student athletic participation or 2.8 million female student athletes (Carpenter & Acosta, 2005). Interscholastic high school sports were reported to have the most seniors (38.8%) participating in a school-based endeavor in 2004 according to the National Center for Education Statistics (Snyder & Dillow, 2010). During the 2006-2007 school year, 54% of all high school students participated in sports. This included over three million females (U. S. Government Accountability Office [U.S. GAO], 2007). At this time, even though female athletes made up 49% of all high school students (National Center for Education Statistics, 2004), they received only 41% of the opportunities to participate in sports. This was estimated to be 1.25 million less chances to play in sports than male peers (National Federation of State High School Associations, 2006). In 2007-2008, approximately, 7,429,381 students participated in United States high school athletics (National Federation of State High School Associations, 2008). In 2012, there were 4,494,406 male and 3,173,549 female high school students participating in sports (Acosta & Carpenter, 2012). These figures represent one female for every 1.4 male who participates in sports. These data support Stevenson's (2007) supposition that "compliance with Title IX largely involved an increase in girls' access to sports with little change in the opportunities available to boys" (p. 504).

Though opportunities to participate in U.S. high school athletics have increased for both males and females between 1993-94 and 2005-2006, Sabo and Veliz (2011) indicated that provisions were not equitable across genders. In 1993, males had 14%

more athletic opportunities than females. By 2000, the percentage had declined to a 11% difference. By the 2005-2006 school year, the difference had increase slightly with males having 12% more opportunities than females. This indicated that although overall opportunities have increased, the gap between genders has slowed only slightly (Sabo & Veliz, 2011).

In spite of more athletic opportunities being offered for U.S. high school students, one of five schools within the United States failed to offer physical education classes to their students. Of those schools that did offer physical education, only 4% of elementary, 8% of middle, and 2% of high schools provided daily physical education classes (Sack, 2007). High school students, 16 and 17 years of age, were reported by the Centers for Disease Control and Prevention (2005) to participate in physical education classes at different rates with one of three females and one of two males engaged. Overall participation in physical education classes in high schools has decreased from 42% of all students in 1991 to 33% of all students in 2005 (CDC, 2008). Eaton et al. (2008) reported that in 2007 only 30% of high school students participated in daily physical education classes. Physical education appears to be available for some students, and gender and location of school significantly influence access. Sabo and Veliz (2008) reported that two of ten, 11th- and 12th- grade urban females attended physical education classes as compared to 5.5 of 10 male peers (p. 69).

Similar findings have been reported in the United Kingdom where data from the Health Survey for England (2008) identified 12% of 14-year-old females engaging in sufficient physical activity leading to overall health benefits. This finding was further

supported by a national survey conducted by the World Health Organization where 15% of females between the ages of 11 and 15 were found to adequately participate in levels necessary to improve health (Gorely et al., 2011). Moreover, males in the U.K. were found to be two times as active in sports as females between the ages of 14 and 15 (National Health Survey [NHS] Information Center, 2009).

Some authors have attributed this finding to stereotypical gender practices found within educational institutions and, in particular, physical education classes (Duncan, 2007) and organized team sports. Many female students reported lack of interest in sports as a result of negative experiences in physical education classes (Gorely et al., 2011). More than half of males and females surveyed as part of the Institute of Youth and Sport's research indicated that males were given more encouragement with regard to sport participation and there were more opportunities for males to be successful in athletics than females (Gorely et al., 2011). Additionally, 43% of secondary school-age females in the U.K. agreed that there were not many athletic role models for females to follow (Gorely et al., 2011). This supported the findings of other researchers in identifying a lack of role models and portrayal of female sports in the media (Flintoff & Scaton, 2001; Holroyd, 2003; Kay, 1995; Whitehead & Biddle, 2008; Williams & Bedward, 1999). Approximately 34% of these students agreed that their teachers encouraged only those students who excelled in the physical education classroom (Gorely et al., 2011). Males were often cited by females in the U.K. to be the reason for their lack of interest in physical education classes (Gorely et al., 2011). This was especially true for

those less active females, as they reported males were too competitive and often engaged in aggressive and dishonest behaviors surrounding athletic participation.

The notion of a hidden curriculum, discussed previously in an academic context, has been proposed to exist within sports arenas embedded within the framework of educational institutions (Garrett, 2004; Ronhold, 2002). The covert curriculum in physical education often stresses and reinforces high levels of competition with accompanying aggressive behavior rather than encouraging overall physical health and well-being of students. It is this aggressive behavior that 45% of female students surveyed preferred not to experience rather than the competition itself (Gorely et al., 2011). Sabo and Veliz (2008) have written that these unspoken expectations provide males with an advantage in sports but increase anxiety and lower self confidence in females. Focus on traditional competition and attention to students who excel in sports disengages those students most at risk for physical inactivity (Gorely et al., 2011). As a result, athletic skill sets and confidence in participation in sports are typically demonstrated by males more than females. This may negatively influence interest and future participation rates of females in sports within educational institutions and community settings alike. Late entry into sports further compounds the issue, often times resulting in less athletic prowess and slowed interest in sports by females as they progress through educational institutions (Sabo & Veliz, 2008).

School-Aged Participation in Sports

One study conducted by Sabo and Veliz (2008) combined two nationwide surveys focusing on gender influences, who participates in sports, who benefits, and how participation impacts children's well-being. Specifically, interest and participation in sports by school-aged females and males in Grades 3 through 12 were studied. Approximately 75% of students surveyed reported participating in an organized sport. Only 15% reported never playing a sport (Sabo & Veliz, 2008). Almost the same number of females (69%) and males (75%) reported playing a team sport at the time of the survey. Of those females participating in sports, more reported being moderately involved in athletics. Males, however, reported being highly involved athletes (Sabo & Veliz, 2008). Similar findings have been reported from surveys conducted with school-aged children in the United Kingdom where males engaged in athletics more so than females during the latter part of primary school through secondary school attendance (Gorely et al., 2011). Prior to this grade level, participation in sports by males and females was reported to be 60% and 61%, respectively (Gorely et al., 2011). In another study conducted by Sabo and Veliz (2011) targeting U.S. high school provision of athletic opportunities for students, males were provided more opportunities to participate in sports than females for each school year across all communities. However, the opportunities increased over time for both males and females at a rate which minimally affected the percentage difference between the genders, i.e., in 1993-94 the percentage difference between males and females was 13% and in 2005-2006 the percentage difference was 12% (Sabo & Veliz, 2011).

Student participation rates can also be considered by grade and type of community. From 1993 to 2006, urban high schools were reported to offer the least athletic opportunities for males and females, and rural high schools offered the most (Sabo & Veliz, 2011). In elementary schools, 59% of females in third to fifth grade engaged in sports in comparison with 80% of their male counterparts (Sabo & Veliz, 2008). Females from urban and rural communities were found to be less active in sports than males, and rural locations representing the lowest proportion of all student-athletes for both genders.

Sabo and Veliz (2008) reported that difference in participation seemed to be influenced by race and ethnicity, economic differences, and family traits of United States students. Gender equity was found for white, highly involved athletes included in \$65,000 + family income group. Non-white females from all levels of income reported lower participation rates than did their male peers. Some attribute cultural definitions assigned to gender specific behavior as further influencing how some females respond to sports surveys with Latinas moderating their participation and interest in sports so as to conform to traditional female roles of mother and housewife (Melnick, Sabo, & Vanfossen, 1992, 1993). Children's level of participation in sports prior to entering high school was related to economic differences. Children from low-income homes represented 38% of non-athletes, and 27% of children from high-income families reported being non-athletes. Females were typically less likely to participate in sports than males. However, this gender difference decreased in higher socioeconomic communities. These findings were further supported by results found in U.S. high

schools from 1993-2006. Students attending high schools with more economic resources offered more opportunities to participate in sports for all students (Sabo & Veliz, 2011). Regardless of U.S. high school resources, in 2005-2006, males were provided 11-12% more athletic opportunities than their female counterparts. These data did not change from data reported in 1999, indicating no further gains in gender equity.

A majority of athletic opportunities accessed by school-aged children were reported to occur within school settings; however, younger children were reported to access sports via community programs (Sabo & Veliz, 2008). For example, students in Grades 3-5 were reported to engage in sports somewhere other than school: 88% in suburban communities and 63 in urban communities. Females within these communities, however, participated at lower rates than males.

More males than females were reported to begin participating in sports at an earlier age even when taking into account socio-economic status and community. Early involvement in sports indicated a gender gap across all income levels with fewer females than males engaged in sports before the age of 6 (Sabo & Veliz, 2008). On average, females accessed sports at age 7.4 versus males at 6.8 years old (Sabo & Veliz, 2008). By age 6, 60% of males were participating in athletic activities as compared to 47% of females. These data indicated that 38% females and 29% males participated in sports between the ages of 7 and 10 years. However, a 2008 Report on Trends and Participation in Organized Youth Sports indicated that females participated in sports at an earlier age than found in 1997. Even though females were reported to be participating in youth

sports at a younger age, the overall participation percentage decreased from 37% to 34% between 1997 and 2008 (National Council on Youth Sports, 2008).

In general, as children got older, active engagement in United States school athletics increased for both females and males. For example, more students in Grades 6-8 reportedly engaged in athletics in school and in after-school or community sports programs. An even greater increase was noted in high school athletic participation for both males and females when compared to participation in community based programs (Sabo & Veliz, 2008). Contrary to findings in the U.S., students in the U.K. were reported to have decreased participation in sports during secondary school across both genders with males decreasing from 53% to 49% and females decreasing from 49% to 31% (Gorely et al., 2011).

In regard to level of physical activity, a longitudinal research study in the U.S. yielded data indicating a decrease in moderate to intense activity levels of males and females aged 9 to 15 (Nadar et al., 2008). Older children participated less in physical activity. However, females' level of participation dropped earlier than same age males. Similarly, in 2007, 6- to 12-year-old females' participation in outside activities decreased from 77% to 61% and was 11% lower than same aged males (The Outdoor Foundation, 2008).

In regard to the number of athletic sports and teams provided to U.S. high school students, Sabo and Veliz (2011) reported an overall increase from 1999 to 2006 for both genders. However, further investigation revealed that males on average, were afforded one more team than females in U.S. high schools across a majority of community

settings. In 2005-2006, males and females were provided equal numbers of athletic teams in rural communities. When accounting for economic means, U.S. high schools with greater fiscal resources were found to provide more teams and different sports to all students. By 2005-2006, the amount of sports provided to males and females were similar, indicating a sense of equality between the genders.

Another perspective to consider regarding gender equity in sports is a gender equity ratio which was reported by Sabo and Veliz (2011) in their study of U.S. high schools from 1993-2006. This ratio indicated sports opportunities afforded males and females based on dividing the total number of opportunities by total number of students by gender. Gender equity in athletic opportunities was found to increase between 1993 and 2000 leading to a narrowing of the gender gap. However, from 2000-2006, this increase slowed and has remained relatively stable with little to no movement toward gender equity in sports participation (Sabo & Veliz, 2011).

Further analysis of Sabo and Veliz's (2011) data revealed that males were offered more opportunities to participate in sports than females in every state except for Alaska. However, nine states offered more sports and number of athletic teams to females than males in 2005-2006. Gender equity ratios for females in these states exceeded those ratios calculated for males. On average, males and females were provided the same number of sports teams in 18 states, but females received more team opportunities than males in 27 states, and five states added more teams for males. The fundamental inclination has been toward achieving gender equity in U.S. high schools without endangering the well-established sports opportunities for males. However, when

reviewing overall trends in proportionality in U.S. high schools, females received 26% fewer participation opportunities than males. Even though they may have had similar numbers of teams, the teams offered fewer athletic positions on the roster (Sabo & Veliz, 2011).

School-Aged Interest in Sports

According to students surveyed across all grades in the United States, males reported being “very interested” in sports more frequently than females (Sabo & Veliz, 2008). Females’ and males’ interest in sports was further found to vary by several factors including family income level, grade level of student, and location of school. Interest in sports was found to vary more within genders than across genders (Sabo & Veliz, 2008). Females in third to eighth grade from urban communities followed by those from rural communities tended to vary most in their interest in sports. More specifically, 85% of third-, fourth-, and fifth-grade males and 49% of their female peers reported being very interested in sports. Overall, school-aged males were reported to be more interested in sports than their female peers.

Males were observed to overestimate their interest in sports, and females underestimated this interest according to surveys conducted in the United States. For example, 42% of third- through eighth-grade, non-athlete males noted sports as being a part of who they were as compared to 16% of non-athlete females (Sabo & Veliz, 2008). This further supports findings by other researchers who have indicated that one’s enthusiasm to communicate an interest in sports is swayed by social norms, gender,

ethnicity, culture, and race (NCWGE, 2007). For example, males were found to communicate their interest in athletics and define themselves as athletes because athletic interests are historically related to appropriate, gender specific behavior for males (Connell, 2000; Messner, 2002; Pollack, 1998; Senay & Waters, 2004). Females, tended to maintain a different operational definition associated with being an athlete which has been hypothesized to trigger a reconsideration of traditional gender roles and notions of femininity (Sabo, Miller, Meinick, & Heywood, 2004). In particular, more urban elementary school males identified sports as a main part of their identity. Similarly, males surveyed in the U.K. were more likely to report being a member of a sports team as important to them (Gorely et al., 2011). Three-quarters of females surveyed in the U.K. reported a strong interest in increasing their participation in sports (NHS Information Center, 2009). Although both males and females appeared to be positive about sports in the U.K., both genders reported less regard and interest in sports as they continued their education. Even more noticeable was the negative regard for sport by females in the higher grades (Gorely et al., 2011).

Females in the Sabo and Veliz (2008) study were found to engage in more types of sports than males. Their activities were often non-traditional types of athletic activities which were not organized within school and community. This interest in different types of athletic activities by females further supports findings that females maintain an overall interest in physical activity but at the same time reject organized, competitive sports (Flintoff & Scranton, 2002).

In regard to accessing athletic opportunities, Sabo and Veliz (2008) found females entering sports later than males. Females in Grades 3-5 reported involvement in sports 9% less than males. By the end of their high school careers, only 69% of males and 64% of females were still playing sports. Females were also found to discontinue participation in sports earlier and in larger numbers than their male counterparts. This has been explained by some as a result of sex-separate, organized athletic opportunities within educational institutions and community settings that were more readily available to males than females (McDonagh & Pappano, 2008). Others attribute the decline in athletic participation to many factors that change over a period of time but ultimately lead to disengagement in sports in high school (Gorely et al., 2011). Looking specifically at transition to secondary school, Gorely et al. (2011) identified the following variables that could explain the decrease in participation: “Sports are more competitive/structured in high school, changes to social groups when change school, concerns about fitting in, identify development, and changes in emphasis/priorities with respect to education, family roles, etc.” (p. 94). These factors coupled with the timing of puberty and increased worry about physical appearances of adolescents may result in the culminating point for disengagement and decrease in interest in sports for teens.

Benefits to athletic participation for both genders were found to begin during elementary school, be quite visible among middle school students, and impact students’ overall health and quality of life according to surveys conducted (Sabo & Veliz, 2008). A noticeable gender gap in athletic participation is reported to surface before children enter high school with third- to fifth-grade males accessing opportunities more than

females. However, many factors have been reported to influence this difference including where children live, family income, age, grade, race and ethnicity (Sabo & Veliz, 2008). Females who live in low, socio-economic, urban communities have been found to be less likely to access sports throughout their childhood and adolescence. This finding is thought by some to challenge the theory that interest in sports “is an inherently gendered trait or disposition” (Sabo & Veliz, 2008, p. 156).

Institutional barriers have also been identified as making it more difficult for females to participate in athletic activities, especially during adolescence (Pierman, 2005). Moreover, courts have identified that surveys tend to capture discriminatory practices that have historically and continually restricted athletic opportunities for females.

“Interests and abilities rarely develop in a vacuum; they evolve as a function of opportunity and experience. . . Women’s lower rate of participation in athletics reflects women’s historical lack of opportunities to participate in sports. . . Moreover the Supreme Court has repeatedly condemned gender-based discrimination based upon archaic and overbroad generalizations about women”. (Cohen v. Brown University, 1997, pp. 178-179)

Opportunity versus genetics is, therefore, thought to establish and sustain children’s interest in sports with “any failure to express interest likely reflect[ing] a lack of prior exposure, which in turn is the result of discriminatory limitations on females’ opportunities” (National Coalition for Women and Girls’ Education, 2007, p. 46).

Gender inequity and degree of difference with opportunity to accessing sports changes as one moves through his or her educational career.

Intercollegiate Athletics

Participation in Intercollegiate Athletics

Understanding intercollegiate athletic opportunities provided to males and females is not easy. It has been complicated by the passage of the Equity in Athletics Disclosure Act (EADA) in 1994 and several reports since that time utilizing NCAA (NCAA) data. Some have argued that Title IX has actually removed intercollegiate athletic opportunities for males in order to increase opportunities for female peers. For example, in 2003, the Secretary of Education's Commission on Opportunity in Athletics disseminated a report referencing findings that male participation in intercollegiate sports had declined. However, in 2007, two reports thought to contain the most accurate data and exhaustive analysis, showed male participation in intercollegiate athletics had actually increased rather than decreased between 1992 and 2007 (Cheslock, 2007b; U.S. GAO, 2007). Moreover, the NCAA Gender-Equity Report, 2004-2010 (2012) indicated a continued increase in overall intercollegiate athletic participation and sports sponsorship for males and females. In addition to having the most precise data and general understanding of participation opportunities for intercollegiate athletes since the enactment of Title IX legislation, this clarification is important so as to fully understand the implications of gender equity law, reporting practices, and effects on opportunities for student-athletes.

A June 2007 report of college participation trends presented data on intercollegiate sports participation gathered as a result of EADA legislation (Cheslock,

2007b). In July of 2007, the U.S. GAO (2007) published another study utilizing NCAA data. Comparison of these two reports indicated similar findings. For data reviewed from 1995-2005 using NCAA and EADA data, participation in sports for intercollegiate males increased by 6.1% and 5.3%, respectively, for all sports, with the exception of track and field and cross country (Cheslock, 2008). Female participation data were comparable with an increase of 27.5% and 20.5%, reported by the NCAA and EADA respectively. The differences in the data between the two reports have been attributed to (a) different sample sizes found within the NCAA and EADA data and (b) the changes made over time to the reporting form required by EADA for cross country and track and field sports in particular (Cheslock, 2008). When sample sizes were accounted for and data adjusted to correct changes in reporting, both the EADA and NCAA data demonstrated a growth in athletic participation in cross country and track and field for both genders (Cheslock, 2008).

From 1991-2005, the U.S. GAO (2007) report, which was based on similar data to that analyzed in the NCAA study, participation in intercollegiate sports increased 8% for males. Prior to 1991, data reported by the NCAA must be examined to determine participation rates of intercollegiate athletes as the EADA was not in effect requiring said data to be reported. For the 11-year period from 1981 to 1992, with sample size accounted for, data reflected an increase of 1.2% for males and 36.6% increase for females participating in intercollegiate athletics (Cheslock, 2008). Findings reported in Cheslock (2007b) and the U.S. GAO report (2007) indicated that female participation in intercollegiate athletics has increased since 1991; however, this rate increase flat-lined

beginning in 2002. From 1991-2002, there was a 3.6% increase and from 2002-2005, there was a 1.5% increase in intercollegiate participation by females (Cheslock, 2008). The NCAA Gender-Equity Report, 2004-2010 (2012), further supports these findings with average proportionality figures of 54.4% male and 45.6% females participating in Division I, NCAA sponsored sports. This was interpreted as an increase of 10.1% and 13.6% for males and females, respectively. Across all Divisions, the NCAA (2012) reported increases in participation opportunities for both males and females. These data indicated that both genders have witnessed an increase in intercollegiate athletic opportunities with females afforded greater participation opportunities than males, thereby decreasing the gap between genders. Regardless, it has been noted that female participation in intercollegiate athletics has continued to lag behind that of males. The growth rate for females has been sluggish since 2001 (Cheslock, 2008).

Research by Anderson and Cheslock (2004) with further analysis by Cheslock (2008) was performed to examine how institutions of higher education have responded to disproportionality in athletics from 1995 to 2005. Findings indicated those institutions offered more athletic opportunities to males than females based on undergraduate population of each gender, i.e., proportionality test of Title IX, increased athletic opportunities for females rather than decreasing opportunities for males. Specifically, “a 10-point increase in an institution’s initial proportionality gap was associated with an increase in female participation of 15 athletes” (Cheslock, 2008, p.13). This further supports the findings of the two reports generated in 2007 that identified colleges and

universities as adding female athletic participation opportunities to meet gender equity legislation rather than dropping male athletic participation opportunities.

Prior to the 1970 enactment of Title IX legislation, there were approximately 2.5 female intercollegiate teams per school with 16,000 female athletes (Acosta & Carpenter, 2012). In 1972, approximately 30,000 females and 170,000 males participated in intercollegiate sports (Bock, 2002). Intercollegiate teams for females increased to 5.61 per school in 1978. This number grew to 7.71 teams per school in 1988. In 2002, there were 151,000 females and 209,000 males participating in NCAA competitions, a 37% increase in female intercollegiate athletes (Carpenter & Acosta, 2005). In 2005, female college students made up 57% of the student population (Sable & Hill, 2006) and received 43% of the athletic opportunities which was approximately 56,110 less opportunities to participate in sports than their male peers (Vincente, 2006). Data indicated that the average number of female intercollegiate teams per school at the time of this study was 8.73 which in total equals 9,274 NCAA female teams or an increase of 2,928 teams since 1988 (Acosta & Carpenter, 2012). In addition to the increase in the number of female intercollegiate teams available, many more colleges and universities were reported to offer sports to females. However, there remain an insufficient number of intercollegiate athletic participation opportunities for females. That there are approximately 16 times more female athletes at the high school level than at the college level could be viewed as a lack of opportunity to participate in intercollegiate sports when interest is evident (Acosta & Carpenter, 2012).

Interest in Intercollegiate Athletics

Students, young and old, male and female, experience different types of education as a result of this pervasive hegemonic ideology, and most seldom question gender inequities in schools (AAUW, 1998b; Brown, 2000; Connecticut Women's Education and Legal Fund, 1998; Hanson, 1992; Sadker & Sadker, 1995). Data have demonstrated that both male and female athletic participation has increased since the passage of Title IX, although specific indicators of the factors influencing this change are not clear according to several studies. One study conducted by Miller et al. (2000) involved a survey of a NCAA Division-II university where the following were investigated: female students' interests in sports, whether students thought their university was in compliance with Title IX, and a comparison of the interests in sports exhibited by both male and female students. Randomly selected female students' interest in sports was compared to the opportunities offered by the university with results revealing that time-related constraints, not interest, were the main reasons why some females chose not to participate in intercollegiate athletics (Miller et al., 2000). Subjects also reported they were satisfied with the athletic programs offered by the university, suggesting that the university was in compliance with Title IX legislation. In this study, the interest level of female and male students was also investigated, and males reported more interest in athletics than females (Miller et al., 2000). In addition, male students indicated a significantly higher participation level in secondary school sports programs than females, although females had more desire to participate in sports in which they were not presently participating (Miller et al., 2000). In another study conducted by Shockley (2005), 74 females were

surveyed who either, at the time of the survey, played rugby or had experience playing rugby in the past. This qualitative study was voluntary with a focus on the southern region of the United States. Most of the females surveyed communicated an overall, positive experience with athletics. Approximately 68 of the 74 respondents identified themselves as having had prior access to sports in some way including participation on other sports teams prior to and during college attendance (Shockley, 2005). With the exception of two respondents, access to varsity sports in high school was noted as a positive experience and led to continued interest in sports as they got older.

According to the NCAA Sports Sponsorship reports, member institutions have added and dropped sports for both female and male student-athletes over the years. The fluctuation in participation and sponsorship rates from year to year has been attributed to many factors such as: variations in student populations both at the high school and college levels, changes in resource allocations, costs of insurance, preference for a particular sport, NCAA rules, concerns with gender equity, changes in NCAA membership, and divisional classification changes within NCAA membership (NCAA, 2011). Acosta and Carpenter (2012) identified “roster size. . . proximity of competitors, and feeder systems” (p. 2) as possible variables that could further influence the stability of an intercollegiate sports team. From 1988-2011, NCAA institutions added a total of 3,272 teams for males but at the same time discontinued 2,748 teams for males which resulted in a gain of 524 teams for males (NCAA, 2011). During this same period, 4,641 sports teams for females were added and support was discontinued for 1,943 teams for females which equaled a gain of 2,698 NCAA teams for females (NCAA, 2011). In

regards to NCAA championship sports sponsorship for both males and females, an increase occurred from the 2009-2010 to the 2010-2011 school year (NCAA, 2011). The total number of combined championship sports teams supported by NCAA member institutions increased from 17,990 to 18,314 from 2009-2010 to 2010-2011. This increase included a gain of 159 and 165 championship sports teams for males and females, respectively.

In addition to those variables identified by the NCAA Sports Sponsorship and Participation Rates Report, 1981-2011, Cheslock (2008) highlighted several factors that may have contributed to specific intercollegiate sports being added and dropped throughout the years. For example, from 1991-2005, participation opportunities for lacrosse and soccer players, both females and males, have increased at high school and intercollegiate levels while the growth rate of tennis and wrestling participation opportunities were the slowest at both levels for males (Cheslock, 2008). Opportunities for females to participate in tennis and gymnastics were also low for high school and college athletes during this time. A high positive correlation between high school and college participation growth rates has been found across sports and has led some to speculate this to be a variable of interest in intercollegiate sport (Cheslock, 2008).

Another possible variable affecting intercollegiate athletic opportunities in a particular sport has been increased injury rates (Cheslock, 2008). Those sports with higher rates of injury are thought to become expensive to the educational institution, especially if the institution is responsible for covering these costs. This may possibly impact the decision to retain or remove the sport as part of the opportunities offered. A

study conducted by the National Athletic Trainer's Association (NATA) and the NCAA operationally defined serious injuries and compared sports according to this definition. Results indicated that gymnastics, football, and wrestling were among the top intercollegiate sports likely to result in a serious injury (Dick, Agel, & Marshall, 2007).

Intercollegiate opportunities in sports may also be influenced by the desire of some sports programs to obtain a competitive advantage over others (Cheslock, 2008). Depending on the type of sport, some schools are compelled to recruit student-athletes from other countries in order to achieve a winning record. The number of international students for each sport from 1999-2006 was averaged using the NCAA Student-Athlete Race and Ethnicity Report to determine the top sports where international students were prevalent. Ice hockey and tennis were found to be the top two sports comprised of international students (Cheslock, 2008). Further comparison across NCAA divisions revealed institutions of higher education maintaining sponsorship of tennis programs in instances where local student-athletes were recruited.

Enrollment management or the use of specific strategies to shape one's student body has also been identified in the literature as a possible influence on whether or not a particular sport is offered at the intercollegiate level (Cheslock, 2008). Sports that attract student-athletes with high academic achievement, financial support, and racial diversity are often considered as part of this practice. After reviewing academic preparation data as reported by the NCAA in the Graduation Success Rate (GSR) for Division I, the Academic Success Rate (ASR) for Division II, and the Academic Progress Rate (APR) for Division I, Cheslock (2008) identified significant differences between intercollegiate

sports. Top academic achievers were represented by males in water polo, lacrosse, skiing, and gymnastics. Female athletes with highest academic performance included those who participated in gymnastics, field hockey, crew, and lacrosse. Although these findings indicated variability across sports, these data may be considered by institutions of higher education when determining which sports to offer students.

Yet another possible influence on whether an intercollegiate sport is offered on campus includes the student-athletes' ability to pay tuition and costs associated with attending an institute of higher education. Athletic programs comprised of revenue producing student-athletes or those who do not require financial aid or scholarships may be more attractive to an institution and thereby given priority over another sport offered on campus. Using the Educational Longitudinal Study (ELS) of 2002, Cheslock (2008) examined participation rates, corresponding family income, and parental education to determine the sports where parental income and education were highest. Lacrosse for both genders was found to yield the highest levels of parental income and education.

Several factors, in addition to legislation, may contribute to sponsorship of specific sports on university and college campuses. The increase in lacrosse as an intercollegiate sport has been reported to be influenced by many of these previously described variables. Not only has interest in this sport grown at the high school level, but student-athletes have often been high academic achievers and come from wealthier families. Although student-athletes who participated in gymnastics have been high academic performers and come from high socioeconomic backgrounds, the probability of injury and decrease in high school interest may have contributed to the decline in this

sport at institutions of higher education. Declines in intercollegiate tennis opportunities may be attributed to the reliance on international students to maintain a competitive edge. The decline in college level wrestling may be due to increased rates of injury combined with a focus on factors associated with enrollment management. It is difficult to pinpoint what has influenced the rise and decline in any one intercollegiate sport over time, and some argue that sponsorship of intercollegiate athletics should not be used to measure gender equity (Cheslock, 2007a; DeHass, 2008; U.S. GAO, 2001; Vincente, 2006).

Intercollegiate Athletic Resource Allocation

In 2002, 54% of the U. S. college student population was female, and 36% of athletic budgets were allocated to female sports. This is less than their proportional representation of athletes (NCAA, 2002). According to the NCAA Gender Equity Report in 2004, intercollegiate female athletes were allocated 38% of all athletic operating funds, 45% of sports scholarship, and 33% of recruitment dollars. These figures continue to represent a disproportionate resource allocation between males and females in regard to intercollegiate scholarships, recruiting, and total revenue since 2004 (NCAA, 2012). For example, NCAA, Divisions I and II have provided more grant-in-aid funds to males than females during this time. Division III athletics do not provide scholarships to their student-athletes. Division I males received 52% of scholarship dollars while females received 48%. Similarly, males participating in Division II NCAA sports received 56.3% of scholarship dollars, and females were granted 43.7%. Resources allocated to recruiting budgets were similar report dollars allocated to scholarship funds with males

receiving more dollars than females across all NCAA Divisions I, II, and III. Specifically athletic teams for males received 63.6% and females received 36.4% for Division I NCAA schools. Proportions of expenses for recruiting allocated for Division II and III males were 60% and 64.2% respectively. Females received 40% (Division II) and 35.8% (Division III). Overall, the proportion of total revenue allocated to NCAA, Divisions I, II, and III teams favored males over females. Division I total revenues were reported as 67.8% and 32.2% for males and females, and Division II figures were 58.2% and 41.8% (NCAA, 2012). Division III data indicated 58.9% for male revenue and 41.1% for females. Percentages reported for scholarships, recruiting, and total revenue were noted as remaining relatively stable since 2005 according to the NCAA report (2012).

Overall athletic expenditures have been examined by others with a critical eye. Colleges and universities have been found to use inconsistent bookkeeping principles especially when identifying expenditure data as part of EADA prior to 2003-2004 (Cheslock, 2008). Underreporting of expenditures was thought to be the norm during this time where only a portion of an institution's athletic costs were captured (Litan, Orszag, & Orszag, 2003). Capital expenditures, which denote a substantial amount of total expenditures for sports (Orszag & Orszag, 2005), and respective indirect costs of athletic departments were often omitted. Cheslock (2008) examined sports expenditures for 625 NCAA schools from 1995-2005 and found that total expenditures increased each year by 7%. This was supported by Fulks' (2008) review of Division I schools from 2003-2006. In 2004-2005, female athletic teams received approximately 35% of all sports expenditures (Cheslock, 2008). As did female athletic participation opportunities, these

sports expenditures increased during 1995-2002 before slowing during 2002-2005. Moreover, utilizing these data to determine gender equity in athletics is difficult considering an increased percentage spent on a Division I football team is not equitable to the same percentage spent on a female sport excluding basketball. Sports, viewed as a socializing agent, teaches athletes and spectators the values and attitudes of the dominant culture (Coakley, 1990) similar to the way educational institutions function as a means of social control by developing curricula with the purpose of preserving “existing social privilege, interest, and knowledge, which are the prerogatives of one element of the population, maintained at the expense of less powerful groups” (Apple, 2004, p. 45). Both blatant and hidden consequences of one’s behavior in sports influences future social, economic, and political stratification within society which is evident in the traditional masculine endorsement found within competitive sports (Theberge, 1997). Competitive sports have been identified by Theberge as one of the most important opportunities for the assembly and illustration of gender. However, some disregard athletics as a formal topic worth discussion even though it contributes heavily to the social production of gender (Pierman, 2005).

Given that athletic arenas tend to set the stage for the social construction of gender identity and reinforce corresponding practice of appropriate gender specific behavior, in itself, challenges the hegemonic ideology well established within educational institutions (Boyle, 2005). Sports can then be defined as a gendered product which is associated with a predominantly masculine or feminine image and is a result of gender-role socialization rather than an inherent link between one’s sex and participation or

viewing of the sport (Costa, 1994; Deaux & Major, 1987; Fischer & Arnold, 1990; Spence, 1993; Theberge, 1985). In regard to sports, females have traditionally either been ignored or discriminated against, and the dominant ideology of sports has been reserved for and accepted by the majority as most appropriate for males. Males have been socialized differently from females. Females tend to discontinue athletic participation more often than males, and barriers to athletic opportunities still exist for females (Boyle, 2005). This is due largely to gender-role socialization where males are expected to be competitive and females are not (Koivula, 1999). Differential socialization for females and males in relation to sports opportunities and experiences, therefore, shapes their attitudes toward sports (Koivula, 1999). Title IX has established opportunities for many female athletes at both the high school and intercollegiate level and has enhanced the public's awareness of female student-athletes. However, many female athletic teams are not culturally valued to a point where participation is proportional to population and resources are allocated equitably across genders. In addition, some contend that lack of athletic opportunities, insufficient fiscal support, and unreliable institutional support have maintained barriers to female participation in sports (Scott & Derry, 2005) This illuminates further the complexities associated with determining connections to intercollegiate interest in sports and Title IX's ability to act as a social change agent resulting in gender equity within school-sponsored athletic programs.

Summary

Several potential factors associated with intercollegiate level of interest in athletics have been reported in the review of the literature. In addition to Title IX compliance, inequity within educational institutions was presented as a function of the prevailing hegemonic ideology where individuals with power and privilege dominate and control those less valued in society. Indoctrinated via educational institutions, most individuals seldom acknowledge gender bias as a predominant female experience in schools. Together, these associations elucidate the complex nature of gender and gender bias still evident in educational institutions 40 years after the enactment of gender equity legislation. By exploring and exposing such deeply entrenched gender differences within educational institutions, this study contributes to greater awareness and understanding of this problem.

CHAPTER 3 METHODOLOGY

Introduction

The methodology used to conduct the research is presented in this chapter. It begins with a statement of the problem and a description of the population and sample. The instrumentation and the process used to pilot test the instrument to establish reliability and validity are detailed. The chapter concludes with descriptions of the data collection and analysis procedures and a chapter summary.

Statement of the Problem

Educational institutions have traditionally offered disproportionate athletic opportunities and funding to male sports programs, denying females equitable chances to participate in sports (Stafford, 2004). Addressing gender equity within schools, Title IX legislation has prohibited such discrimination in educational programs or activities that receive federal funding. Although applicable to all components of educational programming, Title IX has often been discussed within the realm of equitable athletic opportunities for females and males. However, it has been difficult to determine whether limited athletic opportunities and sexism in educational institutions have been responsible for low levels of female interest and participation in sports or if genetics dictate distinct behaviors and interests of females and males.

Research Questions

This research was conducted to examine the extent to which, if any, gender and prior access to athletics was related to level of interest in participating in intercollegiate sports by answering the following research questions:

1. What is first-time-in-college (FTIC) freshman students' level of interest in participating in intercollegiate athletics?
2. What is first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?
3. To what extent, if any, is there a difference in gender of first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?
4. To what extent, if any, does prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' level of interest in participating in intercollegiate athletics?
5. To what extent, if any, does gender influence first-time-in-college (FTIC) freshmen's interest level in participating in intercollegiate athletics?
6. To what extent, if any, does gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups,

and informal programs affect first-time-in-college (FTIC) freshmen's interest level in participating in intercollegiate athletics?

Population and Sample

A total of 10 convenience samples of 2007 first-time-in-college (FTIC) (FTIC) freshman students attending the University of Central Florida (UCF) were identified from the larger population of all freshman students attending UCF for participation in this study. The sample targeted all FTIC freshmen who attended freshman orientation sessions at UCF during May and June of 2007. In May, 2007, there were a total of six orientation sessions across three days, and in June, 2007, there were a total of four orientation sessions across two days during which FTIC freshmen were asked to complete the survey. This sample included individuals who (a) were 18 years of age or older, (b) had earned fewer than 30 credit hours, (c) had been accepted at UCF, and (d) were willing to complete the survey.

Instrumentation

In June, 2006, the researcher received permission (Appendix B) from the NCAA, via email correspondence, to modify and use The Student Interests in Athletics, Sports, and Fitness Survey (NCAA, 1995). Permission was given to reformat the original survey and to modify, delete, and add questions to the survey as necessary. The original survey (Appendix C) was reformatted, and two additional items were added to the survey. The

two additional items asked for the name of the high school from which the respondent graduated and the year of graduation.

The original, 24-item survey instrument was comprised of items addressing respondents' (a) interest in athletics, fitness, and sports activities; (b) participation in school and non-school sponsored athletics, fitness, and sports activities while in high school; (c) participation in college athletics, fitness, and sports activities at FGCU; (d) general interest in participating in sports, and (e) demographic data. Demographic data included year entering college, enrollment status, number of credit hours earned, gender, age, physical limitations, race, name of high school and year of high school graduation, and the state in which respondent's high school was located. In addition to the 24 items, a cover page providing information about the survey, general instructions, and informed consent with anonymity statement along with a coded list of athletic activities were attached to the survey.

The instrument was modified after a non-experimental pilot study was conducted by the researcher on July 20, 2006, with approximately 90 FTIC Florida Gulf Coast University (FGCU) freshman students, as part of their Freshman Orientation. The final, modified instrument (Appendix D) included a brief description of the survey, general instructions, informed consent and anonymity clause, and 14 questions about the respondents' interest in (a) athletics, fitness, and sports activities; (b) participation in school and non-school sponsored athletics, fitness, and sports activities while in high school; (c) general interest in participating; (d) demographic data; and (e) a coded list of athletic activities.

Five survey items targeted the independent variables of interest, FTIC freshman students' level of prior access to school and non-school sponsored sports, gender, and the dependent variable of athletic interest level of FTIC freshman students in participating in intercollegiate sports. Specifically, items 4, 5, and 6 assessed the independent variable of participants' level of prior access to athletic programs by asking whether or not the individual participated in varsity sports in high school, other school and non-school sponsored athletic activities. Participation or level of prior access to athletic programs was measured as a nominal variable with two categories coded as follows: no = 1, yes = 2.

Survey items 7 and 7a-d gathered data on the dependent variable of level of interest in participating in intercollegiate athletics. Respondents recorded their interest in participating in any types of athletic activities in college regardless of the need to form the program in addition to those programs already in existence. These questions also encouraged participants to consider activities in which they could develop the ability necessary to participate in the activity. Athletic interest for item 7 was measured as a nominal variable. The two categories and coding were as follows: no = 1, yes = 2. Items 7a-7d asked participants to indicate the type of athletic activity in which they were interested by referring to the coded list of athletic activities provided with the survey. Coding for this nominal variable was 0-80 as follows: no answer = 0, specific athletic events associated with corresponding number (1-79) from coded sports sheet, and not on list = 80. In addition to identifying the sport of interest, respondents were asked to

indicate their interest level of participation in that sport as one of the following:
intercollegiate, club, intramural competitive or intramural non-competitive.

Level of interest in participating in sports was measured as a nominal variable using the following two categories: checked (indicating interest) = 1 and not checked (indicating no interest) = 2. Item 10 targeted the second independent variable, respondents' gender. Gender was measured as a nominal variable with two categories and coding as follows: female = 1 and male = 2.

Items 1, 2, and 3 asked participants to rate their interest in watching sports, participating in sports, and the amount of emphasis placed on high school athletics respectively. Items 1 and 2 were measured as ordinal variables using four categories and the following coding: extremely interested = 1, somewhat interested = 2, not very interested = 3, and not at all interested = 4. Item 3 was also measured as an ordinal variable using the following four categories and coding: too much emphasis = 1, the right amount = 2, too little emphasis = 3, and don't know = 4.

The remaining items (8, 9, 11, 12, 13, and 14) gathered demographic data about the participants. In particular, items 8, 9, and 11 asked respondents about their enrollment status, number of credit hours, and age, respectively. Enrollment status was measured as a nominal variable with two categories and the following coding: full-time = 1 and part-time = 2. Number of credit hours was measured as a nominal variable with four categories: less than 30 credit hours = 1, 31-60 credit hours = 2, 61-90 credit hours = 3, and 91 or more credit hours = 4. Age was measured as an ordinal variable with three age ranges and codes: 18-25 = 1, 26-30 = 2, and over 30 = 3. Item 12 sought information

as to whether respondents had any physical or mental condition that would challenge daily activities. This was measured as a nominal variable using two categories and codes of no = 1 and yes = 2. Item 13 gathered data about respondents' ethnicity using race as a nominal variable with the following six categories and codes: White = 1, Black = 2, Hispanic = 3, Asian or Pacific Islander = 4, American Indian or Alaskan Native = 5, and Other = 6. Item 14 asked students to record their year of high school graduation. This was measured as a scale variable and coded using four dates: 2007 = 1, 2006 = 2, 2005 = 3, and prior to 2005 = 4.

Instrument Reliability and Validity

A pilot test was conducted at Florida Gulf Coast University (FGCU) during the summer of 2006 to test the instrument's reliability and validity prior to administering the survey to FTIC freshmen at UCF during the summer of 2007. A dataset from one convenience sample of FTIC freshman students attending a freshman orientation session at Florida Gulf Coast University (FGCU) on July 20, 2006 was used for this purpose. The convenience sample targeted all FTIC freshmen attending Freshman Orientation on July 20, 2006, who: (a) were 18 years of age or older, (b) had earned fewer than 30 credit hours, (c) had been accepted at FGCU, and (d) were willing to complete the survey. The face-to-face survey was administered by the researcher with the support of FGCU's Freshman Orientation Coordinator. Approximately 90 FTIC freshmen were given the opportunity to complete the survey. A total of 48 surveys were completed and used to test validity and reliability of the survey items. The sample was 60% female and 40%

male. Not surprisingly, 85% of the sample had graduated from high schools within the state of Florida, and 15% were graduates of high schools representing seven other states.

A factor analysis was completed with seven items in the data set which served as constructs for the research questions in the study. A principal components extraction was utilized, and a varimax rotation was implemented. Reliability analyses were performed for the constructs derived from the factor analysis. The following two items were recoded to relate the information in increasing rather than decreasing levels of interest:

1. How interested are you in watching athletic, fitness, and sports events on TV or hearing them on the radio; going out to attend events as a spectator; and keeping up with events by following news about athletic, fitness, and sports activities?
2. How interested are you in participating in athletic, fitness, or sports activities?

Bartlett's Test of Sphericity was significant indicating that there were statistically significant correlations between some of the variables. In addition, the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.613. Since this measure was greater than 0.5, the use of factor analysis to reduce the number of variables was appropriate. Two components were extracted from the factor analysis and together they explained 56.3% of the variance in the scores. Component I, consisting of six items, accounted for 37.2% of the variance in scores. Component II, consisting of three items, accounted for 19.1% of the variance in scores. Table 1 displays the results of the factor analysis.

Table 1

Total Variance Explained

| Component | Initial Eigenvalues | | | Sum of Squared Loadings | | | Rotation Total |
|-----------|---------------------|----------|------------|-------------------------|----------|------------|-------------------|
| | Total | Variance | Cumulative | Total | Variance | Cumulative | |
| 1 | 2.603 | 37.190 | 37.190 | 2.603 | 37.190 | 37.190 | 2.601 |
| 2 | 1.339 | 19.134 | 56.324 | 1.339 | 19.134 | 56.324 | 1.342 |
| 3 | .973 | 13.896 | 70.220 | | | | |
| 4 | .753 | 10.755 | 80.975 | | | | |
| 5 | .610 | 8.710 | 89.685 | | | | |
| 6 | .437 | 6.241 | 95.927 | | | | |
| 7 | .285 | 4.073 | 100.000 | | | | |

Note. Extraction Method: Principal Component Analysis

Component I was named “Interest Level I.” Reliability (Cronbach’s Alpha) for this factor was 0.702, and removal of any variable would not have improved reliability. The second component was named “Interest Level II.” The reliability (Cronbach’s Alpha) for this factor was 0.372. Only two items were used for the reliability analysis of Interest Level II since the analysis indicated that one of the items was negatively correlated. Removal of any item did not improve the reliability of component II, and the Cronbach’s Alpha indicated this component was unreliable. The remaining reliable construct, Interest Level I, accounted for 37.190% of the variance and was composed of the six survey items displayed in order of loading in Table 2.

The results of this pilot test indicated that 37% of the variance in interest level in sports among FTIC freshmen could be accounted for by their self-described level of interest in participation or watching sports and their experience playing sports while in

high school, especially at the varsity level. For the purposes of this pilot study, Title IX compliance at each high school named by the respondents was not determined. This item was removed from the final instrument as high school compliance with Title IX was determined to be a variable to consider in future studies.

Table 2

Survey Items for Factor: Interest Level I

| Survey Items (#) | Value |
|--|-------|
| How interested are you in participating in athletic, fitness, or sports activities? (2) | 0.812 |
| Did you participate in any varsity sport(s) in high school? (4) | 0.743 |
| Would you be interested in participating in any types of athletic, fitness, or sports activities in college that you are not now participating in? In answering this question, consider programs that could be formed as well as those that may currently exist. Also, consider activities for which you may not presently have the ability but think you could develop the necessary ability if you were given the time and/or help. (14) | 0.735 |
| How interested are you in watching athletic, fitness, and sports events on TV or hearing them on the radio; going out to attend events as a spectator; and keeping up with events by following news about athletic, fitness, and sports activities? (1) | 0.631 |
| While in high school, did you participate regularly in any athletic, fitness, or sports activities that were NOT sponsored by your high school? Sometimes such activities are organized by a league, local government, parks department, religious group, or club. Sometimes they are informal or things you did on your own, with friends, or informally with other students. (6) | 0.595 |
| Did you participate in any other athletic, fitness, or sports activities offered by your high school, other than required physical education classes? (5) | 0.283 |

As a result of the pilot test, it was learned that the instrument required further modification. Several questions were worded in a manner that suggested students were already actively engaged in coursework and campus activities. The sample, however, was comprised of students attending an orientation session who had not yet begun the first semester at FGCU. For the purposes of this study, those questions were removed from the analysis and subsequently deleted from the final instrument. In addition, questions related to students' perceived ability to participate in sports activities were removed as this aspect of student interest in athletics was beyond the scope of the current research study.

Observing the respondents as the survey was completed revealed that reformatting was desirable and that instructions for marking answers should be clarified. For example, many participants missed the direction to circle either "yes" or "no" but did complete the sub-question asking details about yes answers. Another observation was that participants would have preferred a separate reference sheet listing sports with their corresponding codes rather than having it attached to the end of the questionnaire requiring frequent page flipping to complete the survey. As a result of these observations, the survey was reformatted, directions were added to clarify the yes/no questions, and the coded list of athletic activities was provided as a supplemental handout to the survey questions.

Data Collection

The data analyzed in the study were gathered via 10 face-to-face opportunities provided by the Director of Freshman Orientation on the UCF-Orlando campus during

freshman orientation sessions held on May 22, 25, 31, June 12, and 22, 2007 for Summer 2007 FTIC freshmen admitted to the university. Two freshman orientation sessions were held on each of these days, one at 9 a.m. and one at 10:30 a.m., led by a freshman orientation coordinator and assisted by two freshman orientation volunteers. UCF's Director of Freshman Orientation arranged for the researcher to present the voluntary and anonymous survey to those students 18 years and older at each of these orientation sessions.

Upon entering the auditorium for each orientation session, students were given a copy of the 14-item survey, a modified version of The Student Interests in Athletics, Sports, and Fitness Survey (NCAA, 1995), along with a coded list of athletic activities and informed consent document. Informed consent was verbally reviewed, and instructions were provided to participants regarding the completion of the survey. Respondents, aged 18 and older, were asked to complete the survey and submit it to the researcher, Freshman Orientation Coordinator, or volunteers prior to exiting the orientation session.

Completed questionnaires that met the study criteria of having been completed by students being age 18 years and older, having less than 30 credit hours, and attending FTIC freshman orientation sessions during May and June of 2007 at the UCF-Orlando campus were then coded for each of the freshman orientation sessions. Upon completing the final freshman orientation session, the surveys were entered into SPSS. Further analyses were delayed as a result of personal issues experienced by the researcher.

Although 1,435 surveys were returned over the course of the 10 FTIC freshman orientation sessions, only 1,196 met the above criteria and were included in the study. The session dates, frequencies and percentages of surveys returned and meeting the criteria are displayed in Table 3.

Table 3

Surveys Meeting Criteria by Session Dates

| Session Dates | Surveys Returned | Surveys Meeting Criteria | |
|---------------|------------------|--------------------------|------------|
| | Frequency | Frequency | Percentage |
| May 22, 2007 | 260 | 205 | 78.8 |
| May 25, 2007 | 290 | 240 | 82.8 |
| May 31, 2007 | 343 | 290 | 84.6 |
| June 12, 2007 | 331 | 276 | 83.4 |
| June 22, 2007 | 211 | 185 | 87.7 |
| Total | 1,435 | 1,196 | 83.3 |

Data Analysis

Descriptive statistics and statistical analyses were performed to answer the six research questions which guided the study. The data analysis was performed using the responses coded into the SPSS 14.0 for Windows Grad Pack (2005) program.

The frequency function was used to determine several descriptors of the surveyed population and to check the accuracy of the data entry. Frequencies and percentages were used to describe the sample based on enrollment status at UCF, hours of credit toward graduation (FTIC freshmen status), gender, age, disability, race, and year individual graduated from high school. The frequency function was also used to

determine the level of interest in participating in intercollegiate athletics by FTIC freshmen and FTIC freshmen students' level of prior access to athletic programs sponsored by (a) school, (b) community, (c) church, (d) student or civic groups, and (e) informal programs, thereby answering Research Questions 1 and 2. For Research Question 1, the categories included interested or not interested in participating in intercollegiate athletics. For Research Question 2, the categories included having prior access to athletics or not having prior access to athletics.

The Crosstabs function was used to obtain crosstabulations and measures of association for Research Questions 3, 4, and 5. The Pearson chi-square statistic was used to determine (a) the statistical relationship between gender of FTIC freshmen and prior access to athletic programs for Research Question 3, (b) FTIC freshmen's prior access to athletic programs and level of interest in participating in intercollegiate athletics for Research Question 4, and (c) gender of FTIC freshmen and interest level in participating in intercollegiate athletics for Research Question 5. The two variables were not considered to be independent of one another when related significance levels for the Pearson chi-square coefficient were less than or equal to 0.05 for each of the crosstabulations. Of the 1,196 cases considered, there were 57 (4.7%) disability cases reported. In order to control for a potential disability effect when testing gender and prior access within Research Questions 5 and 6, a logistic regression analysis was used.

Logistic regression analysis was used to control for a potential disability effect and answer Research Question 6. The dependent variable was dichotomous and a multiple linear regression test was not appropriate because the dependent variable did not

follow a normal distribution (Field, 2009). The logistic regression approach allows one to predict the odds of one of the outcomes versus the other in the dependent variable from the independent variables. For Research Question 6, the logistic regression was used to predict one's interest level in participating in intercollegiate athletics based on gender and level of prior access to athletics of FTIC freshmen surveyed. Gender and level of prior access to athletics predicted one's interest level in participating in intercollegiate athletics when related significance levels for the likelihood ratio chi-square value were less than or equal to 0.05. To further explain, if the value of the odds ratio for gender and prior access to school and non-school sponsored athletics (predictor variables), was > 1 , it was indicated that as the predictor variable(s) increased, the odds of the outcome variable or interest in participating in intercollegiate athletics also increased (Field, 2009).

In addition to the logistic regression analysis, frequencies were tabulated for Research Question 6 to describe the percentages of FTIC freshmen females and males who reported both having and not having prior access to athletics in relationship to their interest level in participating in intercollegiate sports. Table 4 displays the research questions, the sources of data for each question and the data analysis technique associated with each question.

Table 4

Research Questions, Sources of Data, and Data Analysis

| Research Questions | Survey Items | Data Analysis |
|---|--------------------------------|---------------------|
| 1. What is first-time-in-college (FTIC) freshman students' level of interest in intercollegiate athletics? | 7, 7a, 7b, 7c, 7d | Frequencies |
| 2. Is there a difference in gender of first-time-in-college (FTIC) freshman's level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs? | 4, 5, 6 | Frequencies |
| 3. To what extent, if any, is first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs? | 4, 5, 6, 10 | Chi-square |
| 4. To what extent, if any, does prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' level of interest in intercollegiate athletics? | 4, 5, 6, 7, 7a, 7b, 7c, 7d | Chi-square |
| 5. To what extent, if any, does gender influence first-time-in-college (FTIC) freshman students' interest level in intercollegiate athletics? | 7, 7a, 7b, 7c, 7d, 10 | Chi-square |
| 6. To what extent, if any, do gender and level of prior access to athletic community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' interest level in intercollegiate athletics? | 4, 5, 6, 7, 7a, 7b, 7c, 7d, 10 | Logistic regression |

Summary

The research design and methodology used for the present study have been described in this chapter. Included were a brief statement of the problem, a description of the population, sample, and the survey instrument. The methods and procedures used to conduct a pilot study of the instrument and to determine its reliability and validity have been detailed. The data collection and analyses techniques used to answer the six research questions have also been documented. Chapter 4 presents a summary of the analysis of the data using tables and accompanying narratives. Chapter 5 concludes the study with a summary and discussion of the findings, implications and recommendations for policy, practice, and future studies.

CHAPTER 4 ANALYSIS OF THE DATA

Introduction

This study was conducted to investigate the effects of gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on level of FTIC freshmen's interest in participating in intercollegiate athletics. The results of the analysis of first-time-in-college (FTIC) freshman survey responses gathered during freshman orientation sessions held at the University of Central Florida (UCF)-Orlando campus in May and June of 2007 are presented in this chapter. This chapter is organized around the six research questions which guided the study. Included are the demographic characteristics of the sample, descriptive statistics and the results of the analysis for each of the research questions.

Descriptive Statistics

Population and Sample

Survey data from this study consisted of 1,196 respondents (682 females and 514 males) who attended freshman orientation sessions in May and June of 2007 at the UCF-Orlando campus. All participants in the study had less than 30 credit hours with 1,147 (95.9%) being registered as full-time students and 49 (4.1%) being registered as part-time students at the time of the survey. The sample ranged in age from 18 years of age to 25 years of age with 57 (4.8%) reporting limitations to daily activity as a result of physical

or mental condition. All (1,181, 98.7%) of the survey participants graduated from high school in 2007 with the exception of 13 individuals (1.1%) graduating from high school in 2006, one (0.1%) student who graduated from high school in 2005, and one (0.1%) student who reported graduating from high school prior to 2005. Ethnicities reported by respondents are presented in Table 5. The sample was composed of 937 (78.3%) Caucasians, 145 (12.1%) Hispanics, 46 (3.8%) African Americans, 40 (3.3%) Asian or Pacific Islanders, 2 (0.2%) American Indians or Alaskan Natives, and 26 Others (2.2%).

Table 5

Demographic Characteristics of Sample

| Characteristic | Frequency | Percentage |
|-----------------------------------|-----------|------------|
| Gender | | |
| Female | 682 | 57.0 |
| Male | 514 | 43.0 |
| Total | 1,196 | 100.0 |
| Race | | |
| Caucasians | 937 | 78.3 |
| African American | 46 | 3.8 |
| Hispanic | 145 | 12.1 |
| Asian or Pacific Islander | 40 | 3.3 |
| American Indian or Alaskan Native | 2 | .2 |
| Other | 26 | 2.2 |
| Total | 1,196 | 100.0 |

Respondents' Interest and Participation in Athletic, Fitness, and Sports Activities

FTIC freshmen were queried, in several items, as to their general interest in athletics (item 1), interest in participating (item 2), and emphasis that had been placed on sports at their high schools (item 3). Their responses are presented in Table 6.

When asked about their general interest in athletics, fitness, or sports activities, a total of 1,036 (86.6%) of the FTIC freshmen reported being extremely or somewhat interested in sports. The remaining 160 (13.4%) of those surveyed reported being not very or not at all interested in sports activities. This included watching sporting events on TV, hearing about them on the radio, attending events as a spectator, and keeping up with current sports events via the news.

When further asked how interested respondents were in actually participating in athletic, fitness, or sports activities, 1,014 (84.8%) reported being extremely or somewhat interested. Only 182 (15.2%) reported being not very or not at all interested in participating in sporting events.

In regard to their beliefs about the amount of emphasis placed on sports at their high schools, 808 (67.6%) of respondents indicated that the right amount of importance had been placed on athletics. Others reported too much emphasis 141 (11.8%) and too little emphasis 221 (18.5%) being placed on athletics at their high schools. Only 26 (2.2%) indicated that they did not know how much emphasis was placed on sports at their high schools.

Table 6

Interest in and Emphasis on Athletic Fitness and Sports Activities

| Descriptor (item) | Frequency | Percentage |
|---|-----------|------------|
| Interest in sports activities (item 1) | | |
| Extremely interested | 581 | 48.6 |
| Somewhat interested | 455 | 38.0 |
| Not very interested | 128 | 10.7 |
| Not at all interested | 32 | 2.7 |
| Total | 1,196 | 100.0 |
| Interest in participating in sporting events (item 2) | | |
| Extremely interested | 555 | 46.4 |
| Somewhat interested | 459 | 38.4 |
| Not very interested | 138 | 11.5 |
| Not at all interested | 44 | 3.7 |
| Total | 1,196 | 100.0 |
| Emphasis on sports at your high school (item 3) | | |
| Too much emphasis | 141 | 11.8 |
| The right amount | 808 | 67.6 |
| Too little emphasis | 221 | 18.5 |
| Don't know | 26 | 2.2 |
| Total | 1,196 | 100.0 |

In order to gather details regarding the type of athletic participation experienced to date, by those surveyed, items regarding high school varsity athletic participation, other high school, non-varsity and non-required physical education classes participation, and athletic, fitness, or sports activities not sponsored by high schools were included in the survey. The descriptive statistics for these items are presented in Table 7.

Table 7

Respondents' Prior Participation in Sports

| Descriptor | Frequency | Percentage |
|---|-----------|------------|
| Participated in high school sport | | |
| Yes | 689 | 57.6 |
| No | 507 | 42.4 |
| Total | 1,196 | 100.0 |
| Earned a varsity letter in high school sport | | |
| Yes | 609 | 50.9 |
| No | 80 | 6.7 |
| No response | 507 | 42.4 |
| Total | 1,196 | 100.0 |
| Participation in other athletic, fitness, or sports activities offered in high school | | |
| Yes | 410 | 34.3 |
| No | 786 | 65.7 |
| Total | 1,196 | 100.0 |
| Participated in non-school organized sports in high school | | |
| Yes | 451 | 37.7 |
| No | 744 | 62.2 |
| No response | 1 | .1 |
| Total | 1,196 | 100.0 |

Of the students surveyed, 689 (57.6%) reported participating in varsity sport(s) while in high school with the top three varsity sports being reported as cheerleading (97, 8.1%), soccer (88, 7.4%), tackle football (68, 5.7%). Moreover, 609 (50.9%) of those participating in a varsity sport at their high schools reported earning a varsity letter as a result. Participation in other athletic, fitness, or sports activities offered by respondents' high schools, not including required physical education classes or varsity sports were reported by 410 (34.3%) of those surveyed. The top three (non-varsity and non-required

P.E. classes) sports activities sponsored by the high school included soccer (43, 3.6%), weight lifting (41, 3.4%), and basketball (40, 3.3%). When asked about regular participation in athletic, fitness, or sports activities that were not sponsored by their high school, 744 (62.2%) of those surveyed reported participating in sporting activities either organized by a league, local government, parks department, religious group, club, or informal athletic activities engaged in with or without friends prior to beginning college. The top three non-high school sponsored athletic activities included soccer (100, 8.4%), basketball (78, 6.5%), and dancing (61, 5.1%).

General Interest in Participating in College Athletic, Fitness, and Sports Activities

FTIC freshmen were also asked to report their interest in participating in fitness, and sports activities while in college. Using the definitions provided for intercollegiate teams, club programs, competitive intramural programs, and non-competitive intramural programs, as defined in the survey instrument, 946 (79.1%) reported being interested in participating in any type of athletic, fitness, or sports activities in college that they were not already participating in. This included programs that could be formed in addition to those that already existed. Respondents were asked to consider activities for which they may not have presently had the ability to perform, but think could be developed if given the time and/or help. The top athletic activities cited here included soccer 98 (8.2%), dancing 67 (5.6%), basketball 66 (5.5%), and volleyball 66 (5.5%). Of those interested in participating in their first identified athletic activity while in college, 317 (26.5%) were interested in participating at the intercollegiate level, 411 (34.4%) at the club level, 482

(40.3%) at the intramural competitive level, and 283 (23.7%) at the intramural non-competitive level. Frequencies and percentages for respondents' interest in participating in college athletic, fitness and sports activities are presented in Table 8.

Table 8

Respondents' Interest in Participating in College Athletic, Fitness, and Sports Activities

| Interest in Participation | Frequency | Percentage |
|---|-----------|------------|
| Interested in participating in any athletic program | | |
| Yes | 946 | 79.1 |
| No | 249 | 20.8 |
| No response | 1 | .1 |
| Total | 1,196 | 100.0 |
| Interested in participating at the intercollegiate level | | |
| Yes | 317 | 26.5 |
| No | 879 | 73.5 |
| Total | 1,196 | 100.0 |
| Interested in participating at the club level | | |
| Yes | 411 | 34.4 |
| No | 785 | 65.6 |
| Total | 1,196 | 100.0 |
| Interested in participating at the intramural competitive level | | |
| Yes | 482 | 40.3 |
| No | 714 | 59.7 |
| Total | 1,196 | 100.0 |
| Interested in participating at the intramural non-competitive level | | |
| Yes | 283 | 23.7 |
| No | 913 | 76.3 |
| Total | 1,196 | 100.0 |

Data Analysis for Research Questions

Research Question 1

What is first-time-in-college (FTIC) freshman students' level of interest in intercollegiate athletics?

Research Question 1 targeted the number or percentage of FTIC freshmen that reported being interested in intercollegiate sports. As described in Chapter 3, level of interest in participating in intercollegiate athletics was measured as a nominal variable with two categories, interested or not interested. Results of the analysis are presented in Table 9. Of those surveyed, 365 (30.5%) respondents identified an interest in participating in any type of intercollegiate athletic, fitness, or sports activities. A total of 831 (69.5%) FTIC freshmen surveyed were not interested in participating in intercollegiate athletics.

Table 9

Respondents' Interest in Participating in Intercollegiate Sports

| Interest in participation | Frequency | Percentage |
|---|-----------|------------|
| Interested in participating in intercollegiate sports | | |
| Yes | 365 | 30.5 |
| No | 831 | 69.5 |
| Total | 1,196 | 100.0 |

Research Question 2

What is first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?

Research Question 2 targeted the number or percentage of FTIC freshmen that reported having prior access to athletic programs by asking whether or not individuals had participated in varsity sports, other school, and non-school sponsored athletic activities while in high school. Participation in or level of prior access to athletic programs was measured as a nominal variable using two categories, yes and no. Results of the analysis are presented in Table 10. Of those surveyed, 982 (82.1%) FTIC freshmen reported having prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs while in high school, and 214 (17.9%) indicated they had not participated in school and non-school sponsored athletic activities while attending high school.

Table 10

Respondents' Prior Access to School and Non-School Sponsored Athletics

| Prior Access to School and Non-School Sponsored Athletics | Frequency | Percentage |
|---|-----------|------------|
| Yes | 982 | 82.1 |
| No | 214 | 17.9 |
| Total | 1,196 | 100.0 |

Research Question 3

To what extent, if any, is there a difference in gender of first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?

A crosstabulation was used to test the relationship between gender of FTIC freshmen and prior access to school and non-school sponsored athletic programs for Research Question 3. A chi-square test of independence was calculated comparing the frequency of prior access to athletic activities for females and males. Gender was measured as a nominal variable with two categories, female and male. Results of the analysis are presented in Table 11. A significant interaction was found ($X^2(1) = 12.253$, $p < .05$). Males (86.6%) were more likely to report having prior access to school and non-school sponsored athletic activities than were females (78.7%).

Table 11

Chi Square Analysis for Prior Access to Athletics by Gender (N = 1,196)

| Prior Access to Athletics | | Females | Males |
|---------------------------|------------|---------|-------|
| No Access | Frequency | 145 | 69 |
| | Percentage | 21.3 | 13.4 |
| Access | Frequency | 537 | 445 |
| | Percentage | 78.7 | 86.6 |

Research Question 4

To what extent, if any, does prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' level of interest in intercollegiate athletics?

A crosstabulation was also used to test the relationship between FTIC freshmen's interest level in participating in intercollegiate athletics and having had prior access to school and non-school sponsored athletic programs. A chi-square test of independence was calculated comparing the frequency of interest level in participating in intercollegiate athletics according to reports of prior access to school and non-school sponsored athletic activities for those surveyed. Results of the analysis are presented in Table 12. A significant interaction was found ($X^2(1) = 73.440, p < .05$). Respondents with prior access to athletic activities (35.8%) were more likely to report an interest in participating in intercollegiate athletics than respondents without prior access to athletics (6.1%).

Table 12

Chi-Square Analysis for Interest in Intercollegiate Activities and Prior Access to School and Non-School Athletic Activities (N = 1,196)

| Interest in Intercollegiate Activities | | No Prior Access | Prior Access |
|--|------------|-----------------|--------------|
| Interest | Frequency | 13 | 352 |
| | Percentage | 6.1 | 35.8 |
| No Interest | Frequency | 201 | 630 |
| | Percentage | 93.9 | 64.2 |

Research Question 5

To what extent, if any, does gender influence first-time-in-college (FTIC) freshmen's interest level in intercollegiate athletics?

A crosstabulation was used to test the relationship, if any, between gender of FTIC freshmen and interest in participating in intercollegiate athletics. A chi-square test of independence was calculated comparing the frequency of interest in participating in intercollegiate athletics for females and males. Results of the analysis are presented in Table 13. A significant interaction was found ($X^2(1) = 10.990, p < .05$). Males (35.6%) were more likely to report interest in participating in intercollegiate athletics than females (26.7%). Gender remained significant ($X^2(1) = 11.274, p < 0.05$) when disability was added to the model, while disability did not ($X^2(1) = 1.482, p = 0.223$). Disability, therefore, was not a factor in explaining the gender effect.

Table 13

Chi-Square Analysis for Interest in Intercollegiate Activities and Gender (N = 1,196)

| Interest in Intercollegiate Activities | | Female | Male |
|--|------------|--------|------|
| Interest | Frequency | 183 | 183 |
| | Percentage | 26.7 | 35.6 |
| No Interest | Frequency | 500 | 331 |
| | Percentage | 73.3 | 64.4 |

Research Question 6

To what extent, if any, does gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshmen's interest level in intercollegiate athletics?

Given the dichotomous dependent variable, a logistic regression was used to answer Research Question 6 (Field, 2009). The logistic regression is a way to address questions such as Research Questions 3, 4, and 5 when the crosstabulation is more than two-dimensional. This test was used to predict the interest level of FTIC freshmen in participating in intercollegiate athletics based on gender and level of prior access to school and non-school sponsored athletic, fitness, and sports activities. A significant logistic regression equation was found ($X^2(1) = 98.3, p < .01$). The results are displayed in Table 14. FTIC freshman males' predicted interest level in participating in intercollegiate athletics was 1.4 times higher than that predicted for FTIC freshman females according to the odds ratio (Field, 2009). In addition, the odds of FTIC freshmen being interested in participating in intercollegiate athletics was 8.3 times higher if they had prior access to athletic activities than if they did not have prior access to sports. Given the coefficients for gender (0.328) and prior access to school and non-school sponsored sports (2.120), it can be assumed that prior access to sports makes a more significant contribution to the prediction of the outcome of the interest level of FTIC freshmen in participating in intercollegiate sports, as the coefficient was significantly different from zero (Field, 2009). Although, there was a prior access to athletics effect, there was also a gender effect on the interest level of FTIC freshmen in participating in intercollegiate athletics. Gender and prior access to athletic activities remained

significant ($X^2(1) = 6.577$, $p < 0.05$, and $X^2(1) = 51.804$, $p < 0.05$, respectively) when disability was added to the model, but disability did not ($X^2(1) = 1.208$, $p = 0.272$).

Therefore, disability was not a factor in explaining the gender effect.

Table 14

Predictors of Interest Level of FTIC Freshmen in Participating in Intercollegiate Athletics

| Step 1 | Chi-square | df | Sig. |
|--------|------------|----|------|
| Step | 98.300 | 2 | .000 |
| Block | 98.300 | 2 | .000 |
| Model | 98.300 | 2 | .000 |

Note. Omnibus Tests of Model Coefficients

Variables in the Equation

| Model | | B | S. E. | Wald | df | Sig. | Coefficient |
|-----------|-----------|-------|-------|--------|----|------|-------------|
| Step 1(a) | gender(1) | .328 | .130 | 6.333 | 1 | .012 | 1.388 |
| | q456(1) | 2.120 | .294 | 51.908 | 1 | .000 | 8.333 |
| | Constant | .406 | .096 | 18.108 | 1 | .000 | 1.501 |

Note. (a) Variables entered on step 1: gender, prior access (q456).

In addition to the aforementioned logistic regression analysis, frequencies were tabulated to describe the percentage of females and males reporting both having and not having had prior access to school and non-school sponsored athletic activities in relationship to their reported interest in participating in intercollegiate athletics. These data are presented in Table 15. Overall, there was a gender difference in interest in participating in intercollegiate sports among students who had prior access to school and

non-school sponsored athletics, as there were 9% less FTIC freshmen females (31.9%) than FTIC freshmen males (40.7%) interested in participating in intercollegiate sports. Moreover, large percentages of FTIC freshmen, 92.1% of females and 96.4% of males, without prior access to school and non-school sponsored athletics reported not being interested in participating in intercollegiate athletics.

Table 15

Logistic Regression Frequency: Gender by Prior Access to Athletics by Intercollegiate Interest

| Gender | Prior Access to Athletics | Intercollegiate Interest | Observed | |
|--------|---------------------------|--------------------------|-----------|------------|
| | | | Frequency | Percentage |
| Female | No | Interested | 11.500 | 7.9 |
| | | Not interested | 134.500 | 92.1 |
| | Yes | Interested | 171.500 | 31.9 |
| | | Not interested | 366.500 | 68.1 |
| Male | No | Interested | 2.500 | 3.6 |
| | | Not interested | 67.500 | 96.4 |
| | Yes | Interested | 181.500 | 40.7 |
| | | Not Interested | 264.500 | 59.3 |

Summary

This study permitted the researcher to examine the effects of gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on the level of FTIC freshmen's interest in participating in intercollegiate athletics. Descriptive statistics and statistical analyses

related to the six research questions were presented. These results indicated a gender difference in FTIC freshmen surveyed when taking into account prior access to school and non-school sponsored athletics in predicting level of interest in participating in intercollegiate sports. FTIC freshmen males reported having more access to athletics than did FTIC freshmen females prior to attending freshmen orientation sessions in May and June of 2007. In addition, more FTIC freshmen males than females reported being interested in participating in intercollegiate athletics. The summary and discussion of the findings, implications for policy and practice, and recommendations for future studies are presented in Chapter 5.

CHAPTER 5 SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This chapter contains a brief review of the purpose of the study, the population, and the research methodology used to conduct the study. The findings detailed in Chapter 4 are summarized and discussed followed by implications for practice, recommendations for future research, and a concluding statement. The rationale behind presenting these sections is to further discuss the ideas and concepts examined in the research so as to expand the understanding of how factors such as gender and level of prior access to school-sponsored and non-school sponsored athletic programs have influenced the level of FTIC freshmen's interest in participating in intercollegiate athletics.

Purpose of the Study

The study was conducted to determine the influence of gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs on level of FTIC freshmen's interest in participating in intercollegiate athletics by analyzing survey responses gathered during freshman orientation sessions held at the UCF-Orlando campus in May and June of 2007.

Population and Sample

The sample was comprised of 1,196 survey respondents (682 females and 514 males) from 10 convenience samples of FTIC freshmen attending freshmen orientation sessions at UCF-Orlando campus in May and June 2007. Demographically, respondents were identified by enrollment status, gender, age, disability, race, and year individual graduated from high school.

Methodology

The Student Interests in Athletics, Sports, and Fitness Survey (NCAA, 1995) instrument was modified for use in this study. Validity and reliability were tested by the researcher as part of a non-experimental pilot study conducted with 90 FTIC FGCU freshmen students as part of their freshman orientation in July 2006. Results of this pilot test indicated that 37% of the variance in interest level in sports among FTIC freshmen could be accounted for by their self-described level of interest in participation or watching sports and their experience in playing sports while in high school, especially at the varsity level. As a result this instrument was modified and used as the primary data collection tool for the study.

Subsequently, survey respondents from UCF-Orlando campus were asked to complete the revised NCAA survey comprised of 14 questions about their interest in (a) athletics, fitness, and sports activities; (b) participation in school and non-school sponsored athletics, fitness, and sports activities while in high school; (c) general interest in participating; (d) and demographic data. Results of the analyses of data gathered from

those FTIC freshmen surveyed indicated their perception of level of interest in intercollegiate sports while accounting for gender and prior access to school and non-school sponsored athletics. Six research questions were formulated to guide the study.

Summary and Discussion of the Findings

Previous researchers (Cheslock, 2007, 2008; Gorely et al., 2011; Sabo & Veliz, 2008, 2011; U.S. GAO, 2007) have described interest and participation levels of high school and college student-athletes since the promulgation of gender equity legislation in 1972. The summary and discussion of the findings in this study were developed around the six research questions and served to identify statistically significant variables in determining interest level in intercollegiate athletics for FTIC freshmen. Although data were collected in May and June of 2007, personal issues experienced by the researcher delayed analysis and summary of the findings.

Research Question 1

What is first-time-in-college (FTIC) freshman students' level of interest in participating in intercollegiate athletics?

Results derived from data obtained to answer Research Question 1 identified 365 of those FTIC freshmen surveyed (30.5%) as having indicated an interest in participating in any type of intercollegiate athletic, fitness, or sports activities. A total of 831 (69.5%) of those surveyed were not interested in participating in intercollegiate athletics. This finding attends to the overall interest of college students in beginning or extending their

previous experience with organized intercollegiate sports. A majority of FTIC freshmen surveyed indicated no interest in participating in intercollegiate sports.

One factor influencing FTIC freshmen's interest in participating in intercollegiate athletics may be related to the structure of college athletic programs. Many institutions of higher education have not been responsive to the numbers and interests of high school student-athletes. There appears to be a disconnect in athletic opportunities afforded at the secondary and at the college levels. As overall participation in high school sports has increased for males and females (Acosta & Carpenter, 2012), the current structure of intercollegiate athletics makes participating in this level of sport a possibility for only a comparative few high school athletes (United States Department of Education Secretary's Commission on Opportunities in Athletics, 2002). Limited numbers of intercollegiate athletic positions on varsity teams may, therefore, contributed to decreased FTIC freshmen interest in pursuing competitive intercollegiate sports positions.

Research Question 2

What is first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?

Overall, high school opportunities have increased for males and females, since the passage of Title IX. Findings for Research Question 2 revealed that of those surveyed, 982 (82.1%) FTIC freshmen reported having prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs during their high school years. The remaining 214 (17.9%) FTIC freshmen reported that they

had not participated in school and/or non-school sponsored athletic activities while attending high school. The 17.9% of FTIC freshmen surveyed who reported not having prior access to sports before being admitted into college echoed findings by other researchers. Sack reported in 2007 that one of five schools within the United States failed to offer physical education classes to their students. Of the offering schools, only 4% of elementary, 8% of middle, and 2% of high schools provided daily opportunities for physical education classes. Furthermore, high school students, aged 16 and 17, were reported by the Centers for Disease Control (2005) to participate in physical education classes at different rates with only one of three females in contrast with one of two males engaged. Overall participation in physical education classes in high schools had decreased from 42% in 1991 to 33% in 2005 (CDC, 2008) and to 30% in 2008 as reported by Eaton et al. (2008). Similar findings have been reported in the United Kingdom where data from the Health Survey for England (2008) identified 12% of 14-year-old females engaging in sufficient physical activity leading to overall health benefits. This finding was further supported by a national survey conducted by the World Health Organization where only 15% of females between the ages of 11 and 15 were found to adequately participate in levels necessary to improve health (Gorely et al., 2011). Moreover, males in the U.K. were found to be two times as active in sports as females between the ages of 14 and 15 (National Health Survey [NHS] Information Center, 2009).

Research Question 3

To what extent, if any, is there a difference in gender of first-time-in-college (FTIC) freshman students' level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs?

In response to Research Question 3 as to differences in gender of FTIC freshmen having access to athletic programs, males (86.6%) were more likely to report having prior access to school and non-school sponsored athletic activities than females (78.7%). This finding was consistent with that described in previous literature (Acosta & Carpenter, 2012; Gorely, 2011; Sabo & Veliz, 2008, 2011) whereby more males than females reported having prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs.

As reported by the United States Commission in 2002 (Simon, 2005), females have received fewer opportunities to participate in high school athletics and still continue to receive fewer chances to play sports. Although Sabo and Veliz (2011) identified that many schools afforded females and males with the same numbers of athletics and teams during 2005-2006, males were given disproportionately more opportunities to participate in sports than females. Across the nation, the allotment of male sports participation opportunities was approximately 26% more than females (Sabo & Veliz, 2011).

Sabo and Veliz (2008) reported two of ten, 11th- and 12th-grade urban females attended physical education classes as compared to 5.5 of 10 male peers. Similar findings have been reported in the United Kingdom where data from the Health Survey for England identified 12% of 14-year-old females engaging in sufficient physical activity leading to overall health benefits (NHS Information Centre, 2009). This finding

was further supported by a national survey conducted by the World Health Organization where only 15% of females between the ages of 11 and 15 were found to adequately participate in levels necessary to improve health (Gorely et al., 2011). Moreover, males in the U.K. were found to be two times as active in sports as females between the ages of 14 and 15 (NHS Information Centre, 2009). Many female students reported lack of interest in sports as a result of negative experiences in physical education classes (Gorely, et al., 2011).

Confronted with the hidden curriculum of sports which includes an increased expectation for competition and high level of physical skill sets, females may be punished more than reinforced by sports participation in physical education classes (Sabo & Veliz, 2008). More than half of males and females surveyed as part of the Institute of Youth and Sport's research indicated that males were given more encouragement with regard to sports participation, and there were more opportunities for males to be successful in athletics than females (Gorely et al., 2011). Additionally, 43% of secondary aged females in the U.K. agreed that there were not many athletic role models for females to follow (Gorely et al., 2011). This supports the findings of others who have identified a lack of role models and portrayal of female sports in the media (Flintoff & Scaton, 2001; Holyroyd, 2003; Kay, 1995; Whitehead & Biddle, 2008; Williams & Bedward, 1999).

Interest in athletics has been reported to occur earlier in the lives of males than females. Females have also been identified as starting athletic activities later in age than their male counterparts (Sabo & Veliz, 2008). Females in Grades 3 through 5 reported involvement in sports 9% less than males, and by the end of their high school careers,

only 69% of males and 64% of females were still playing sports. Females were also found to discontinue participation in sports earlier and in larger numbers than their male peers.

Institutional barriers have also been identified as making it more difficult for females to participate in athletic activities, especially during adolescence (Pierman, 2005). This has been attributed by some to sex-separate, organized athletic opportunities within educational institutions and community settings being more readily available for males than females (McDonagh & Pappano, 2008). In addition, when surveyed about how children perceived themselves, male children agreed that sport was a major descriptor of who they were (Sabo & Veliz, 2008). More males than females created their identities via athletics regardless of whether or not they engaged in sports activities. Female children did not identify with sports to the extent that same-aged male peers did and often did not describe themselves as athletic or as an athlete. Females' identities were not linked to participation in sports to the same extent as male identities. Some attributed this to cultural values and expectations of gender specific behavior being critical influences on identifying with sports at an early age (Sabo & Veliz, 2008).

Females who live in low, socio-economic, urban communities have been found to be less likely to access sports throughout their childhood and adolescence. This finding is thought by some to challenge the theory that interest in sports "is an inherently gendered trait or disposition" (Sabo & Veliz, 2008, p.156). Variations in the gender gap in athletic participation for children appear to be driven by economic disparities, race,

and ethnicity, and family characteristics. This suggests that female and male participation in sports is shaped by access and opportunity (Sabo & Veliz, 2008).

Research Question 4

To what extent, if any, does prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshman students' level of interest in participating in intercollegiate athletics?

In responding to Research Question 4, the 35.8% of FTIC freshmen reporting prior access to athletic activities were more likely to report an interest in participating in intercollegiate athletics than the 6.1% of respondents without prior access to sports (6.1%). Limited exposure and opportunity to participate in sports prior to entering college appears to influence FTIC freshmen's interest in participating in highly competitive sports. Without the opportunity to develop necessary athletic skills, FTIC freshmen may be less inclined to seek intercollegiate athletic opportunities.

Research Question 5

To what extent, if any, does gender influence first-time-in-college (FTIC) freshmen's interest level in participating in intercollegiate athletics?

Similar to findings discussed in previous research questions, results indicated a significant interaction with the variable of gender and interest level in participating in intercollegiate athletics as males (35.6%) were more likely to report interest in participating in intercollegiate athletics than females (26.7%). Accounting for disability, gender remained a significant variable, indicating disability was not a factor in explaining

the gender effect on interest level in participating in intercollegiate athletics. Males reported themselves as being more interested than females in participating in competitive college sports. However, this finding should be interpreted with caution, as males have been identified by Sabo & Veliz (2008) as overemphasizing, just as females have been identified as underestimating, their interests in sports.

Some researchers have attributed females' lack of interest in sports later in life to their early and large drop-out rates from sports participation in middle and high school (Sabo & Veliz, 2008). Discontinuing participation in sports prior to entering college may influence FTIC freshmen females' interest level in intercollegiate sports. Gorely et al. (2011) found 45% of females surveyed reported aggressive behavior exhibited during sports as being the main reason they opted out of athletics. The hidden curriculum in athletics reinforces unspoken expectations of aggressive behavior which often provides males with an upper hand in sports and decreases self confidence in females (Sabo & Veliz, 2008). Many potential athletes have opted out of participation in sports to avoid engaging in what has traditionally been deemed masculine behavior (Pierman, 2005). Focus on traditional competition and attention to students who excel in sports further disengages those students most at risk for physical inactivity (Gorely et al., 2011). As a result, athletic skill sets and confidence in participation in sports are typically demonstrated by males more than females. This may well influence interest and future participation rates of females in sports within educational institutions and community settings alike. This finding, coupled with females' athletic participation beginning later than males has been hypothesized by some to set the foundation for decreased interest in

sports later in educational careers (Sabo & Veliz, 2008). Without continued physical skill development and corresponding confidence in one's ability to play sports, FTIC female freshmen may be more inclined to report a lack of interest in participating in intercollegiate sports.

A lower percentage of FTIC freshmen females may report an interest in pursuing such activities than their male counterparts because of the small number of institutions of higher education which provide intercollegiate athletic participation opportunities for females in proportion to the female student population. In 2005-2006, there were approximately 55% female students attending NCAA institutions. Across all NCAA divisions, except for Division I non-football schools, 41% to 45% of the athletes were females (DeHaas, 2008). This lack of intercollegiate athletic participation opportunities for females was also evident at the high school level where there were approximately 16 times more female athletes participating at the high school level (Acosta & Carpenter, 2012). The lack of proportional opportunities to participate in intercollegiate athletics may influence FTIC freshmen's interest level. If males are known to have more athletic participation opportunities, they may be more inclined to report an interest in intercollegiate athletics than females.

Research Question 6

To what extent, if any, does gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs affect first-time-in-college (FTIC) freshmen's interest level in participating in intercollegiate athletics?

Results from data analyzed to answer Research Question 6 indicated a significant relationship in predicting FTIC freshmen's interest level in intercollegiate athletics.

FTIC freshman males' predicted interest level in participating in intercollegiate athletics was 1.4 times higher than that predicted for FTIC freshmen females. The odds of FTIC freshmen being interested in participating in intercollegiate athletics was 8.3 times higher if they had prior access to athletic activities than if they did not have prior access to sports. Prior access to sports was found to make a more significant contribution to the prediction of the outcome of interest level of FTIC freshmen in participating in intercollegiate athletics. In addition to the effect of having prior access to athletics, data indicated that there was also a gender effect on the interest level of FTIC freshmen in participating in intercollegiate athletics. There were 9% less FTIC freshmen females (31.9%) than FTIC freshmen males (40.7%) interested in participating in intercollegiate sports. Males with prior access to sports were more likely to indicate an interest in participating in intercollegiate athletics than females surveyed. Large percentages of FTIC freshmen, 92.1% females and 96.4% males without prior access to school and non-school sponsored athletics reported not being interested in participating in intercollegiate athletics.

These findings support Shockley's (2005) survey of female rugby players where approximately 68 out of the 74 respondents identified themselves as having had prior access to sports in some way, including participation on other sports teams prior to and during college attendance. Access to varsity sports in high school was noted as a positive experience for all but two respondents, and led to continued interest in sports as the rugby players got older. According to Carpenter and Acosta (2005), exposure to sports and the opportunity to learn how to play sports increases the likelihood of females participating in sports in the future. When females are given the chance to learn how to play sports, they engage in athletics. This appears to be true when reviewing female athletic participation trends across both high school and college since the enactment of Title IX legislation. In 1971-1972, approximately 294,015 females participated in high school varsity sports. In 2007-2008, female athletic participation grew by more than 1,000% to 3,057,266 (National Federation of State High School Associations, 2008). In 1970, before the enactment of Title IX legislation, there were 16,000 female intercollegiate athletes (Acosta & Carpenter, 2012). This figure grew to 200,000 female intercollegiate athletes by 2012 which was the highest number of female athletic participation at the college level to date.

However, in 2007-2008, high school female athletes had approximately 1.3 million fewer sports opportunities than their male counterparts. This equated to males having 60% more opportunities to play intercollegiate sports. According to the NCAA, in 2007-2008, there were approximately 412,768 athletes that participated in NCAA sponsored championship sports. Male athletes were the majority of this group, totaling

57.4% with 232 athletic opportunities provided to males and 168 athletic opportunities provided for females (DeHaas, 2009). Though female participation in sports has increased across grade levels, inequity remains a constant when comparing number of opportunities across genders. Historically, athletic opportunities have been provided for males by society with high expectation and encouragement. Engaging in athletic activity has been part of gender role socialization and the image of being male (Carpenter & Acosta, 2005). This is thought by some, and appears to be supported by the findings of the present study, to have sent a clear message that sports is more appropriate for males than females.

Implications for Practice

Though Title IX legislation has been credited with increasing athletic opportunities for females, enforcement of the law continues to be regarded as less than effective. As no educational institution has had federal dollars removed as a result of being found in violation of the legislation, it appears that examining data regarding actual athletic participation opportunities offered to males and females at all grade levels would be important. Studies such as the present research initiative could be useful in identifying policies and practices of educational institutions that may be discriminatory in nature. Enforcement of Title IX could enhance an educational climate where males and females of similar talent who desire to be athletes or engineers have equal access to pursue their dreams. As the 2004 report conducted by the GAO identified, enforcement of Title IX

needs to occur so that, at a minimum, educational institutions receiving federal dollars are in compliance with the legislation.

As educational institutions may be the prime place to engage social change (Gorely et al., 2011) the Department of Education could encourage educational and athletic leaders to stimulate male and female student interest in sports at the elementary and secondary levels by encouraging and offering participation in athletics from a young age for both males and females. If young children participate in more sports programs, increased interest and participation in intercollegiate sports is more likely to occur. This could further encourage gender equity across other domains and settings where males and females are not limited to engaging in activities based on gender or what the hegemonic ideology of the institution dictates. In order for this to occur, improvement in data collection at all school levels regarding participation, interest, and resource allocation in sports is necessary. All educational institutions receiving federal dollars, are in effect, legislated to provide equitable educational opportunities to males and females. If these institutions are required to report similar data, comparisons over time, across the country, could be made to determine the true state of gender equity in educational institutions. Ensuring that data regarding athletic opportunities are captured annually would enhance the likelihood that proportional measures are compared between males and females rather than identifying equitable numbers of sports or teams by gender at their respective schools.

Those supporting students, such as parents and educators should embrace the idea of a growth mind-set where amount of student effort and energy devoted to any task,

athletic or otherwise, is thought to produce successful outcomes. This has the potential to decrease the effect of gender specific stereotypes and may increase female participation in non-traditional gender specific academic and athletic tasks (Dweck, 2008). This view of learning a skill versus being born with it may increase interest in participating in intercollegiate sports. Moreover, students should be exposed to academic and athletic role models in the school setting (McIntyre et al., 2003, 2005) so as to encourage participation and interest in a variety of activities and content areas. Educators and parents alike should become aware of the hidden curriculum and power and privilege often afforded to some within educational institutions. By questioning the status quo and underlying cultural beliefs that reinforce inequity within educational institutions, equal access for all students can be attained.

More athletic opportunities that are comparable to that afforded to males need to be provided to females, especially when sports become sex-separate, organized after-school opportunities (Sabo & Veliz, 2008). Increasing the type and number of sports programs provided in elementary and middle schools may be an opportunity to get females involved in sports earlier, providing them with necessary opportunity to learn physical skill sets and build self-confidence. Adding more athletic teams for females over males or creating more squads within a particular sport may be a way to increase the athletic participation opportunities among females that would help to close the current gender gap. Focusing on participation rates versus number of teams or sports provided to student-athletes is a critical factor to consider for policy enforcement and data collection

as increased numbers of teams may not decrease the gender gap or reach gender equity in athletics for females (Sabo & Veliz, 2011).

Limitations of the Study

The goal of this study was to determine if one's gender and level of prior access to athletic programs sponsored by school, community, church, student or civic groups, and informal programs influenced FTIC freshmen's level of interest in participating in intercollegiate athletics. Survey responses gathered during freshman orientation sessions held at the UCF-Orlando campus in May and June of 2007 were analyzed. Data were gathered to answer six research questions targeting this goal. Although significant findings resulted from the analyses of the data, some limitations were identified.

One limitation was the nature of the sample. Results of the survey gathered from the convenience sample used in this study may not generalize well to other FTIC freshmen across the country. Using surveys to determine one's interest in participating in intercollegiate athletics is yet another limitation. Courts have acknowledged that surveys tend to capture discriminatory practices that have historically and continually restricted athletic opportunities for females rather than measuring real interest in participating in sports if the opportunity was available.

Interests and abilities rarely develop in a vacuum; they evolve as a function of opportunity and experience. . . Women's lower rate of participation in athletics reflects women's historical lack of opportunities to participate in sports. . . Moreover the Supreme Court has repeatedly condemned gender-based discrimination based upon archaic and overbroad generalizations about women. (Cohen v. Brown University, 1997, pp. 178-179)

Moreover, athletic interest surveys are grounded on the assumption that results from these surveys can be used to forecast athletic behavior (National Coalition for Women and Girls in Education [NCWGE], 2007) which has been observed by behavioral scientists to be inconsistent at best. This is true, especially in context of athletics, where formal opportunity to participate in sports has historically been limited for females. Females surveyed may neglect to articulate their interest in participating in sports at the time of the survey but often welcome the prospect to play if given the chance. Previous researchers have indicated that one's enthusiasm to communicate interest in sports is swayed by social norms, gender, ethnicity, culture, and race (NCWGE, 2007). For example, males tend to communicate their interest in athletics and distinguish themselves as athletes because athletic interests are historically related to appropriate, gender specific behavior for males (Connell, 2000; Messner, 2002; Pollack, 1998; Senay & Waters, 2004). Females, tend to maintain a different operational definition associated with being an athlete which triggers a reconsideration of traditional gender roles and notions of femininity (Sabo et al., 2004). Cultural definitions of appropriate gender specific behavior may further influence how some females respond to surveys of athletic interest with Latinas moderating their participation and interest in sports so as to conform to traditional female roles of mother and housewife (Melnick et al., 1992, 1993). According to the report on Title IX athletics policies (National Coalition for Women and Girls Education, 2007), "Any failure to express interest likely reflects a lack of prior exposure, which in turn is the result of discriminatory limitations on females' opportunities" (p. 46).

Recommendations for Future Research

Future researchers interested in this topic should consider assessing the impact on interest in participating in sports in college of other variables such as:

- (a) participation in sports prior to high school,
- (b) family, peers, and teacher support to participate in athletics,
- (c) media portrayal of male and female sports and their participants,
- (d) location of prior athletic opportunities, and
- (e) socioeconomic status of student and family.

All of these factors, which have the potential to contribute to and influence one's interest in future athletic participation, may further illuminate factors outside of the legislative arm that sway female and male interest. Incorporating more qualitative data such as responses from focus groups and interviews with FTIC freshmen and their families would supplement survey data by confirming survey responses or providing additional insight into possible influences on interest in participating in intercollegiate athletics. Further investigation into the type of prior access to athletic opportunities afforded males and females may highlight where these opportunities are provided. Knowing if a school-sponsored or community sponsored athletic opportunity is more readily available for children may guide further enforcement of Title IX as the law pertains to entities that receive federal funding. Additional opportunities could then be created to fill the void. Exploring what type of sports males and females have participated in prior to entering post-secondary educational institutions along with the number of hours engaged in this sport over time and comparing that to current interest level of intercollegiate athletics

would also provide meaningful data to further support athletic opportunities across all educational levels. Meeting the athletic interest of students prior to entering college may have a trickle-up effect on the type of sports offered at the college level. Honoring both traditional and non-traditional types of sports for males and females may increase future interest and participation in those sports.

Another aspect of interest in intercollegiate sports that would benefit from further investigation includes determining if previous elementary, middle, and high schools attended by FTIC freshmen maintained gender equity for athletics. If students attended Title IX compliant schools prior to entering college, then they may have more of an interest in participating in intercollegiate athletics.

Summary

Benefits to participating in sports have been documented early in the literature as noted by Simone de Beauvoir (1952) where athletes get a notion of authority and power which enables them to influence others as a result of exercising their bodies. Active participation in sports has also been noted as assisting athletes with developing leadership skills that can be used across domains and settings beyond athletic arenas (Chawansky, 2005). Researchers have indicated athletic participation not only improves academic achievement, but often leads to enhanced student self-image and overall student health (Oglesby, 2007; Sabo & Veliz, 2008; Thomas, 2008; Suggs, 2005). The influence of sports on lives of children has been documented to begin well before they enter high school (Sabo & Veliz, 2008). Given these benefits, research into interest, participation

and gender equity within educational institutions has highlighted the imbalance of athletic opportunities afforded to males and females. As sport involves a typically sex-segregated notion, discrimination is often apparent (Carpenter & Acosta, 2005). Males have historically been given more athletic opportunities than females across all grade levels.

The results of this study added to the research conducted by others in gender equity within educational institutions, and in particular, Title IX legislation. Gender and prior access to school and non-school sponsored sports were found to be predictors of intercollegiate athletic interest of FTIC freshmen. Also, those individuals experiencing equitable athletic opportunities prior to entering college indicated a higher interest in sports than did those students with fewer athletic opportunities. FTIC freshmen males who had prior access to sports indicated interest in intercollegiate athletics more so than FTIC freshmen females who did not have prior access to athletics.

Although data indicated there has been a large increase in athletic participation by females since the passage of Title IX legislation, females are still not afforded equitable athletic participation opportunities in high school or in college as their male counterparts (Acosta & Carpenter, 2012). As sport has been identified as one of the most productive places for understanding gender and in particular masculine behavior, female participation in sports is thought to challenge the dominant ideology of power and privilege existent in educational institutions (Pierman, 2005). Female school experiences are different from that of males, with females starting sports later in age than males, and dropping out of sports more frequently than males. Barriers to accessing sports remain in

place for females within educational institutions (Cheslock, 2007, 2008). Increasing opportunities to participate in sports programs early in students' educational careers should convey athletic participation as acceptable for both genders with the potential to alter existing stereotypical gender roles and lead to an increased interest in sports during post-secondary education. As a result, Title IX enforcement could be viewed as a viable change agent to the social problem of low levels of female interest in athletics, and, therefore, a public policy issue that leaders in education should revisit.

APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL



UCF IRB Addendum/Modification Request Form

This addendum form does NOT extend the IRB approval period or replace the Continuing Review form for renewal of the study.

INSTRUCTIONS: Please complete the upper portion of this form and attach all revised/new consent forms, altered data collection instruments, and/or any other documents that have been updated. **The proposed changes on the revised documents must be clearly indicated by using bold print, highlighting, or any other method of visible indication. Attach a highlighted and a clean copy of each revised form.** This Addendum/Modification Request Form may be emailed to IRB@mail.ucf.edu or mailed to the IRB Office: ATTN: IRB Coordinator, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or campus mail 32816-0150. Phone: 407-823-2901 or 407-882-2276, Fax: 407-823-3299.

- **DATE OF ADDENDUM:** 4-23-07 to IRB# 06-3587 IRB Addendum # 07-4421
- **PROJECT TITLE:** Sports Interest Survey of Incoming Freshmen
- **PRINCIPAL INVESTIGATOR:** Dr. Jess House
- **PREFERRED MAILING ADDRESS:** Michelle White 2217 SE 26th St. Cape Coral, FL 33904
- **PREFERRED PHONE NUMBER & EMAIL ADDRESS:** Michelle White
239-246-6157 mwhite@fmhi.usf.edu
- **REASON FOR ADDENDUM/MODIFICATION:** Change in Principal Investigator from Dr. Witta to Dr. House and change in Co-Investigators from Michelle White, Kathleen Hoeth Miller, and Amy Trogan to Michelle White. Survey revised, one independent variable replaced with a new independent variable, and population to survey changed from FGCU to UCF Incoming Freshmen Summer 2007.
- **DESCRIPTION OF WHAT YOU WANT TO ADD OR MODIFY:**

Based upon results from the pilot survey conducted at FGCU, July 2006, the questionnaire was modified. Some questions and instructions were deleted while others were reworded or revised. Independent variable, Title IX compliance, replaced with independent variable, gender. The informed consent form was revised to reflect change in sample and participating university, principal investigator, and co-investigator. The UCF IRB Protocol Submission Checklist was revised to reflect new principal investigator. The UCF IRB Protocol Submission Form was revised to reflect change in principal investigator and one co-investigator, and projected time-line for project. All changes are highlighted on the attached documents.

SECTION BELOW - FOR UCF IRB USE ONLY

| | | |
|---|---|--|
| <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input type="checkbox"/> Full Board <input type="checkbox"/> Chair Expedited |  IRB Chair Signature <hr/> IRB Member/Designated Reviewer 1 | <u>4/24/2007</u> Date <hr/> Date |
|---|---|--|

APPENDIX B
NCAA PERMISSION FOR USE OF SURVEY INSTRUMENT

**NATIONAL COLLEGIATE ATHLETIC ASSOCIATION
PERMISSION TO REPUBLISH**

The National Collegiate Athletic Association ("NCAA") hereby grants permission to republish, on a limited, non-exclusive basis and pursuant to the other terms set forth herein, the materials identified below ("SELECTIONS"). These SELECTIONS will appear in:

| | |
|------------------------------------|---|
| <i>Title ("WORK"):</i> | An Investigation of Gender, Prior Access to Athletics and First-Time-in-College Freshmen's Interest Level in Intercollegiate Sports |
| <i>Author(s):</i> | Michelle A. White |
| <i>Publisher:</i> | NA |
| <i>Type of Publication:</i> | Dissertation |
| <i>Projected Publication Date:</i> | December 2010 |
| <i>Other / Notes:</i> | |

Pursuant to the terms set forth herein, the NCAA grants permission to republish the following SELECTIONS, in the context represented herein, by Michelle A. White:

Survey of Student Interests in Athletics, Fitness, and Sports: Modified from the NCAA Survey of Student Interests in Athletics, Fitness and Sports Activities (1995).

Unless otherwise specified, the credit line for the SELECTIONS shall read: "© National Collegiate Athletic Association. 1995-2010. All rights reserved."

APPROVAL OF REQUEST

I hereby represent and warrant that I have the right to grant the permission to republish the materials as specified on this form. I hereby grant to Michelle A. White the right to republish such SELECTIONS, as further set forth herein. Any other use of the SELECTIONS shall not be allowed, except with the prior written approval of the NCAA. The NCAA reserves the right to revoke the permission granted herein, at any time and for any reason or no reason at all, with written notice thereof to Michelle A. White.

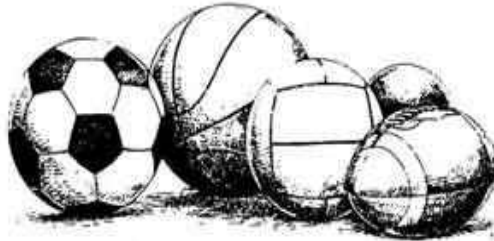
Grantor:
Jay Rossello
Assistant General Counsel
National Collegiate Athletic Association
PO Box 6222
Indianapolis, IN 46206-6222
Date: August 25, 2010

Signature: _____

Grantee:
Name: Michelle A. White
Title: Florida's Positive Behavior Support Project:
Response to Intervention for Behavior
Company: University of South Florida
Address: University of South Florida
Box 146, 2710 Del Prado Blvd. #2
Cape Coral, Florida 33904
Date: August 25, 2010

Signature: _____

APPENDIX C
STUDENT INTERESTS IN ATHLETICS, SPORTS,
AND FITNESS SURVEY (ORIGINAL)



SURVEY OF STUDENT INTERESTS IN ATHLETICS, FITNESS, AND SPORTS

About the Survey: This questionnaire deals with your interest and involvement in athletic, fitness, and sports activities. This means activities that require some significant level of **physical** effort on your part. In this survey we are interested in all kinds of physical activity that you regularly do, whether in school or outside of school. Whether it's an established team sport, an emerging type of athletics that isn't well known, or a kind of exercise that you do on your own, with friends, or in a class—we are interested in knowing about it. If it seems like we have a lot of questions, it's because students have many different ways of being involved in athletics, fitness, and sports, and we don't want to miss anything that you're involved in or interested in.

General Instructions: Please **circle** one number for each response unless otherwise specified. For all questions requesting particular types of athletic, fitness, and sports activities, please refer to the list provided and write in the numbers corresponding to your choices. If you want to mention an activity that isn't on the list, please **print** the name of the activity in the spaces marked "Other."

Confidentiality: The questionnaire has an identification number for mailing purposes only. This is so that we may check your name off of the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

I. Your Interest In Athletic, Fitness, and Sports Activities

Students differ in how much they **follow**, and in how much they actually **participate in** athletic, fitness and sports activities. The following questions are designed to address your interests.

1. How interested are you in watching athletic, fitness and sports events on TV or hearing them on radio; going out to attend events as a spectator; and keeping up with events by following news about athletic, fitness, and sports activities?
Are you...

- 1 EXTREMELY INTERESTED
- 2 SOMEWHAT INTERESTED
- 3 NOT VERY INTERESTED, OR
- 4 NOT AT ALL INTERESTED?

Please circle
just one number

2. How interested are you in **participating** in athletic, fitness, or sports activities?
Are you...

- 1 EXTREMELY INTERESTED
- 2 SOMEWHAT INTERESTED
- 3 NOT VERY INTERESTED, OR
- 4 NOT AT ALL INTERESTED?

3. Do you believe that your college or university places too much, too little, or the right amount of emphasis on intercollegiate athletics?

- 1 TOO MUCH EMPHASIS
- 2 TOO LITTLE EMPHASIS
- 3 THE RIGHT AMOUNT
- 4 DON'T KNOW

II. Your Participation In HIGH SCHOOL Athletic, Fitness, and Sports Activities

The next few questions deal with your **participation** in high school athletic, fitness, and sports activities. You participate when you **do** the activity. Coaches, managers, trainers, referees, etc. are **not** considered to be participants. Please refer to the list on the fold-out page and write in the numbers corresponding to your choices. If you want to mention an activity that isn't on the list, please print the name of the activity in the spaces marked "Other."

4. Did you participate in any **varsity** sport(s) in high school?

- 1 NO -----> Go to question 5
 2 YES -----
 ↓

Please list and indicate if you earned a varsity letter in that sport by circling "Y" for Yes or "N" for No.

| <u>Enter a 2-digit number for each activity:</u> | | <u>Did you earn a varsity letter?</u> | |
|--|---|---------------------------------------|---|
| 1 | <input type="text"/> <input type="text"/> | Y | N |
| 2 | <input type="text"/> <input type="text"/> | Y | N |
| 3 | <input type="text"/> <input type="text"/> | Y | N |
| 4 | OTHER _____ (Please Print) | Y | N |
| 5 | OTHER _____ | Y | N |

5. Did you participate in any **other** athletic, fitness, or sports activities offered by your high school—other than required physical education classes?

- 1 NO
 2 YES -----
 ↓

Please enter a 2-digit number for each activity:

1 2 3

4 OTHER: _____ 5 OTHER: _____

6. While in high school, did you **participate** regularly in any athletic, fitness, or sports activities that were **NOT** sponsored by your high school? Sometimes such activities are organized by a league, local government, parks department, religious group, or club. Sometimes they are informal—things you did on your own, with friends or informally with other students.

1 NO

2 YES -----
↓

Please enter a 2-digit number for each activity:

1 2 3

4 OTHER: _____ 5 OTHER: _____

III. Your Participation in COLLEGE Athletic, Fitness, and Sports Activities at This Institution

The following questions refer to your activities at this school over the past 12 months. If you are a freshman or a transfer student who has been enrolled here less than 12 months, please report only on activities since you enrolled here. Please answer with the following definitions in mind:

There are three levels of college athletic, fitness, and sports programs:

First, there are INTRAMURAL programs that are informal and open to all students. Some intramural activities involve competition and some do not. In COMPETITIVE INTRAMURAL programs, events take place **within** the college or university among student teams or individual students. Competitive activities are those which end with a person or team "winning" or getting "first place." Teams that compete at the intramural level do not usually have a regular practice schedule. NON-COMPETITIVE INTRAMURAL programs do not involve competition and are offered to provide opportunities for physical fitness and recreation. These programs include both scheduled and non-credit classes and "open hours" at gyms, pools, and other athletic, fitness, and sports facilities.

CLUB programs are student-run and are often supervised by faculty advisors. These programs have an established practice schedule and a schedule of contests against **other** colleges or universities. There are usually no scholarships in club programs.

INTERCOLLEGIATE teams have a head coach, staff, and competitive schedule against **other** colleges and universities. Students practice on a daily or weekly basis, may follow an individual program of off-season training, travel and occasionally miss classes. They frequently have access to academic support services including tutors and counselors. Some receive scholarships that cover all or a portion of the cost of their education.

7. Since this time last year, have you **participated** in any **Club** or **Intercollegiate** athletic, fitness or sports activities sponsored by this college or university? Please refer to page 4 for a definition of "Intercollegiate" and "Club" activities.

1 NO -----> Please go to question 8
 2 YES ----->

Please list club and intercollegiate activities separately.

| <u>Club</u> | | <u>Intercollegiate</u> | |
|-------------|---|------------------------|---|
| 1 | <input type="checkbox"/> <input type="checkbox"/> | 1 | <input type="checkbox"/> <input type="checkbox"/> |
| 2 | <input type="checkbox"/> <input type="checkbox"/> | 2 | <input type="checkbox"/> <input type="checkbox"/> |
| 3 | <input type="checkbox"/> <input type="checkbox"/> | 3 | <input type="checkbox"/> <input type="checkbox"/> |
| 4 | OTHER: _____ | 4 | OTHER: _____ |
| 5 | OTHER: _____ | 5 | OTHER: _____ |

8. (If you answered NO to question 7, please answer the following question. Otherwise, please go to question 9.)

There are many reasons students do **not participate** in club or intercollegiate activities in college. Please check all the reasons that apply to you in the last year.

- 1. IT TAKES TOO MUCH TIME.
- 2. THE PROGRAM(S) I AM INTERESTED IN IS / ARE NOT OFFERED.
- 3. I DO NOT HAVE THE PHYSICAL ABILITY.
- 4. PARTICIPATING WOULD INTERFERE WITH MY STUDIES.
- 5. PARTICIPATING WOULD INTERFERE WITH MY JOB.
- 6. THE PROGRAM(S) I AM INTERESTED IN IS / ARE NOT VERY GOOD AT THIS SCHOOL.
- 7. I AM CONCERNED ABOUT PHYSICAL INJURIES.
- 8. FINANCIAL CONSTRAINTS.
- 9. I AM NOT GOOD ENOUGH TO MAKE THE TEAM.
- 10. I HAVE A DISABILITY OR MEDICAL CONDITION THAT WOULD LIMIT MY PARTICIPATION.
- 11. I AM TOO OLD TO PARTICIPATE.
- 12. I HAVE BEEN DISQUALIFIED FROM PARTICIPATING.
- 13. I AM NOT INTERESTED IN ATHLETICS AND / OR SPORTS.
- 14. I AM NOT FAMILIAR WITH CLUB OR INTERCOLLEGIATE PROGRAMS HERE.
- 15. I DO NOT HAVE THE ENERGY FOR ATHLETICS OR FITNESS ACTIVITIES.
- 16. I AM INVOLVED IN INTRAMURALS INSTEAD OF CLUB OR INTERCOLLEGIATE SPORTS.
- 17. PARTICIPATING WOULD INTERFERE WITH MY FAMILY.
- 18. I AM NOT ELIGIBLE TO PARTICIPATE.
- 19. OTHER (PLEASE EXPLAIN) _____

9. Since this time last year, have you **participated** in any **Competitive** or **Non-competitive Intramural** athletic, fitness or sports activities sponsored by this college or university? Please refer to page 4 for a definition of "Intramurals" if necessary.

1 NO -----> Please go to question 10
 2 YES ----->

Please list separately those which are competitive and those which are not. Competitive activities are those which end with a person or team "winning" or getting "first place."

Competitive Intramural:

Non-competitive Intramural:

1

1

2

2

3

3

4 OTHER: _____

4 OTHER: _____

5 OTHER: _____

5 OTHER: _____

10. (If you answered NO to question 9, please answer the following question. Otherwise, please go to question 11.)

There are many reasons students **do not participate** in Intramural activities in college. Please check all the reasons that apply to you in the last year.

- 1. IT TAKES TOO MUCH TIME.
- 2. THE PROGRAM(S) I AM INTERESTED IN IS / ARE NOT OFFERED.
- 3. I DO NOT HAVE THE PHYSICAL ABILITY.
- 4. PARTICIPATING WOULD INTERFERE WITH MY STUDIES.
- 5. PARTICIPATING WOULD INTERFERE WITH MY JOB.
- 6. THE PROGRAM(S) I AM INTERESTED IN IS / ARE NOT VERY GOOD AT THIS SCHOOL.
- 7. I AM CONCERNED ABOUT PHYSICAL INJURIES.
- 8. FINANCIAL CONSTRAINTS.
- 9. I AM NOT GOOD ENOUGH TO MAKE THE TEAM.
- 10. I HAVE A DISABILITY OR MEDICAL CONDITION THAT WOULD LIMIT MY PARTICIPATION.
- 11. I AM TOO OLD TO PARTICIPATE.
- 12. I HAVE BEEN DISQUALIFIED FROM PARTICIPATING.
- 13. I AM NOT INTERESTED IN ATHLETICS AND / OR SPORTS.
- 14. I AM NOT FAMILIAR WITH INTRAMURAL PROGRAMS HERE.
- 15. I DO NOT HAVE THE ENERGY FOR ATHLETICS OR FITNESS ACTIVITIES.
- 16. I AM INVOLVED IN CLUB OR INTERCOLLEGIATE SPORTS INSTEAD OF INTRAMURALS.
- 17. PARTICIPATING WOULD INTERFERE WITH MY FAMILY.
- 18. I AM NOT ELIGIBLE TO PARTICIPATE.
- 19. OTHER (PLEASE EXPLAIN) _____

11. Have you taken any physical education or activity classes at the college level that you were **not required** to take?

- 1 NO
 - 2 YES -----
- ↓

Please enter a 2-digit number for each activity in which you participated through these classes.

1 2 3
4 OTHER: _____ 5 OTHER: _____

Now that we have asked about your participation in activities sponsored by your school, we would like to ask similar questions about your participation in activities that are **NOT SPONSORED** by your school. Sometimes, such activities are **organized**. They can be sponsored by a league, local government, parks department, religious group, club, fraternity or sorority, etc. Sometimes activities are **informal**—things you do on your own, with friends or informally with other students.

First we are interested in **organized** activities. These are athletic, fitness, and sports activities that involve **at least one of the following**:

- there are coaches or managers who are not participants
- there are officials, judges, umpires, or referees at each event
- records are kept on each event
- prizes or trophies are awarded

12. Since this time last year, have you **participated** in any **organized** athletic, sport, or fitness activity that included **any one** (or more) of the four elements mentioned above and was not sponsored by the college or university? (FRESHMEN/TRANSFERS: since you enrolled here.)

- 1 NO
 - 2 YES -----
- ↓

Please enter a 2-digit number for each activity.

1 2 3
4 OTHER: _____ 5 OTHER: _____

13. Since this time last year, have you **participated** regularly in any athletic, fitness or sports activities outside of school that you have **not** listed above? For example, any **informal** activities not arranged by the college or university?

1 NO
 2 YES -----
 ↓

Please enter a 2-digit number for each activity.

1 2 3
 4 OTHER: _____ 5 OTHER: _____

IV. Your Interest in Participating

We have only a few more questions. This section deals with your interest in participating in existing or new programs.

14. Would you be **interested** in participating in any types of athletic, fitness, or sports activities in college that you are not now participating in? In answering this question, consider programs that **could** be formed as well as those that may currently exist. Also, consider activities for which you may not presently have the **ability** but think you could develop the necessary ability if you were given the time and/or help.

1 NO -----> Please go to Section V on page 10
 2 YES -----
 ↓

14a. What is the **first** athletic/fitness activity or sport in which you would be interested in participating?

ACTIVITY / SPORT OR OTHER: _____

Please check off the **level** or levels at which you would be interested in participating in this activity/sport. Also please indicate whether you believe you have the athletic ability needed to participate at the level(s) you have checked, or would need to develop the necessary ability, by circling 1 or 2.

| <u>Level</u> | <u>I Have the Ability</u> | <u>I Would Need to Develop the Ability</u> |
|---|---------------------------|--|
| <input type="checkbox"/> INTERCOLLEGIATE | 1 | 2 |
| <input type="checkbox"/> CLUB | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL COMPETITIVE | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL NON-COMPETITIVE | 1 | 2 |

14b. What (if any) is the **second** athletic/fitness activity or sport in which you would be interested in participating? (If none, go to Section V on page 10)

ACTIVITY / SPORT OR OTHER: _____

| <u>Level</u> | <u>I Have the Ability</u> | <u>I Would Need to Develop the Ability</u> |
|---|---------------------------|--|
| <input type="checkbox"/> INTERCOLLEGIATE | 1 | 2 |
| <input type="checkbox"/> CLUB | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL COMPETITIVE | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL NON-COMPETITIVE | 1 | 2 |

14c. What (if any) is the **third** athletic/fitness activity or sport in which you would be interested in participating? (If none, go to Section V on page 10)

ACTIVITY / SPORT OR OTHER: _____

| <u>Level</u> | <u>I Have the Ability</u> | <u>I Would Need to Develop the Ability</u> |
|---|---------------------------|--|
| <input type="checkbox"/> INTERCOLLEGIATE | 1 | 2 |
| <input type="checkbox"/> CLUB | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL COMPETITIVE | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL NON-COMPETITIVE | 1 | 2 |

14d. What (if any) is the **fourth** athletic/fitness activity or sport in which you would be interested in participating? (If none, go to Section V on page 10)

ACTIVITY / SPORT OR OTHER: _____

| <u>Level</u> | <u>I Have the Ability</u> | <u>I Would Need to Develop the Ability</u> |
|---|---------------------------|--|
| <input type="checkbox"/> INTERCOLLEGIATE | 1 | 2 |
| <input type="checkbox"/> CLUB | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL COMPETITIVE | 1 | 2 |
| <input type="checkbox"/> INTRAMURAL NON-COMPETITIVE | 1 | 2 |

V. More About You

Finally, we'd like to know a few more things about you for statistical purposes. All your answers on this questionnaire are confidential.

15. In what year did you enter this college or university? 19 _____
16. Are you currently enrolled:
- 1 FULL-TIME
 - 2 PART-TIME
17. Approximately how many hours of credit have you earned toward graduation not counting the courses you are currently taking?
- 1 LESS THAN 30
 - 2 31-60
 - 3 61-90
 - 4 91 OR MORE
18. Are you:
- 1 MALE
 - 2 FEMALE
19. In what year were you born? 19 _____
20. Do you have any physical or mental condition that limits your daily activities in any way?
- 1 NO
 - 2 YES -----
- ↓
- Please describe the condition(s):
- _____
21. What race do you consider yourself?
- 1 WHITE, NOT OF HISPANIC ORIGIN
 - 2 BLACK (AFRICAN AMERICAN), NOT OF HISPANIC ORIGIN
 - 3 HISPANIC
 - 4 ASIAN OR PACIFIC ISLANDER
 - 5 AMERICAN INDIAN OR ALASKAN NATIVE
 - 6 OTHER: _____
22. In what state or foreign country was the high school you graduated from located?
- _____

Thank you for your participation. Please fold and return this booklet immediately in the enclosed envelope.

ATHLETIC, FITNESS, AND SPORTS ACTIVITIES

| | | | |
|----|----------------------------------|----|---------------------------------|
| 01 | Acrobatics | 40 | Paddleball |
| 02 | Aerobics: Aerobics Classes | 41 | Pistol |
| 03 | Archery | 42 | Polo |
| 04 | Badminton | 43 | Racquetball |
| 05 | Baseball | 44 | Rhythmic Gymnastics |
| 06 | Basketball | 45 | Rifle |
| 07 | Bicycling | 46 | Rodeo |
| 08 | Billiards | 47 | Rugby |
| 09 | Body Building | 48 | Running—Road Races |
| 10 | Bowling | 49 | Sailing |
| 11 | Boxing | 50 | Scuba Diving |
| 12 | Broomball | 51 | Shuffleboard |
| 13 | Canoeing | 52 | Skating—Figure |
| 14 | Cheerleading | 53 | Skating—Roller or Rollerblade |
| 15 | Crew; Rowing | 54 | Skating—Speed |
| 16 | Cricket | 55 | Skiing—Cross Country |
| 17 | Cross-Country Running | 56 | Skiing—Downhill |
| 18 | Curling | 57 | Skiing—Water |
| 19 | Dancing | 58 | Skish |
| 20 | Deck Tennis | 59 | Snorkeling |
| 21 | Diving | 60 | Soccer |
| 22 | Exercising; Working Out | 61 | Softball—Fast Pitch |
| 23 | Fencing | 62 | Softball—Slow Pitch |
| 24 | Fieldball | 63 | Speedball |
| 25 | Football—Tackle | 64 | Squash |
| 26 | Football—Touch | 65 | Surfing |
| 27 | Free Throwing | 66 | Swimming |
| 28 | Frisbee | 67 | Table Tennis |
| 29 | Golf | 68 | Tennis |
| 30 | Gymnastics | 69 | Track and Field (indoor or outd |
| 31 | Handball | 70 | Trampoline |
| 32 | Hiking | 71 | Tumbling—Power and other |
| 33 | Horsemanship; Horseback Riding | 72 | Volleyball |
| 34 | Horseshoes | 73 | Walking—Speed or Power |
| 35 | Hockey—Field | 74 | Water Basketball |
| 36 | Hockey—Ice | 75 | Water Polo |
| 37 | Jogging | 76 | Weight Lifting |
| 38 | Judo; Karate; other Martial Arts | 77 | Wind Surfing |
| 39 | Lacrosse | 78 | Wrestling |

*Don't see your activity on the list above?
Check the cross-reference guide on the back of this booklet.*

CROSS-REFERENCE

Specific track & field events like javelin, discus, hurdles, or pole vault should be listed as 69 Track and Field.

| | |
|----------------------------|--|
| Biathlon | please enter each event separately |
| Cycling | see 07 Bicycling |
| Diving [from diving board] | see 21 Diving |
| Diving—Scuba | see 50 Scuba diving |
| Field Hockey | see 35 Hockey—Field) |
| Gymnastics—Rhythmic | see 44 Rhythmic Gymnastics |
| Ice Skating | see entries under Skating or Hockey |
| Indoor Track | see 69 Track and Field |
| In-Line Skating | see 53 Skating—Roller |
| Karate | see 38 Judo, etc. |
| Marathon | if on road, see 48 Running; if on track, see 69 Track and Field |
| Physical Training—Military | see 22 Exercise |
| Ping-Pong | see 67 Table Tennis |
| Pocket Billiards | see 08 Billiards |
| Polo [on Horseback] | see 42 Polo |
| Polo—Water | see 75 Water Polo |
| Pool | see 08 Billiards |
| Power Tumbling | see 71 Tumbling |
| Power-Walking | see 73 Walking |
| Riding | see 33 Horsemanship |
| Rollerblading | see 53 Skating—Roller |
| Rowing | see 15 Crew |
| Running—track events | see 69 Track and Field |
| Sculling | see 15 Crew |
| Speed-Walking | see 73 Walking |
| Slide Aerobics | see 02 Aerobics |
| Step Aerobics; Step Class | see 02 Aerobics |
| Tennis—Deck | see 20 Deck Tennis |
| Touch Football | see 26 Football—Touch |
| Triathlon | please enter each event separately |
| Water Skiing | see 57 Skiing—Water |
| Working Out | see 22 Exercising |

Still don't see it?

Just print it in the "Other" space provided with each question.

★ ★ ★ ★ ★ ★ ★ ★

Comments: Please feel free to add any additional comments in the space below:

APPENDIX D
STUDENT INTERESTS IN ATHLETICS, SPORTS,
AND FITNESS SURVEY (MODIFIED)

Informed Consent

Sports Interest Survey

Dear UCF Student,

You are among several students who have been selected to participate in an **anonymous** sports interest survey. Your participation and honest answers are crucial for assessing levels of interest in sports at UCF.

- The following questions ask about your perceptions and participation in various levels of sports.
- This survey is completely voluntary. You may choose not to participate or not to answer any specific questions. You may skip any question you are not comfortable answering. **You can decline to participate in this survey without affecting your grade or class standing.** There are no anticipated risks.
- **Do not take this survey if you are under the age of 18.**
- The survey is anonymous and many of the questions are personal in nature. You can be assured that your responses will never be matched with your name when your survey is submitted.
- This study examines whether gender and/or prior access to athletic programs sponsored by school and non-school entities has an impact on first time in college freshman's interest in sports. The information will be used to determine whether one's gender and increased opportunities for athletic participation prior to entering college or university influences intercollegiate students' interest in athletics.
- **Please answer questions honestly.**
- The survey will take approximately 15 minutes to complete. If you choose to participate, you are asked to complete the survey right now.
- Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, the UCF Institutional Review Board and its staff, and other individuals, acting on behalf of UCF, may inspect the records from this research project.
- The results of this study may be published. However, the data obtained from you will be combined with data from others in the publication. The published results will not include your name or any other information that would personally identify you in any way.
- If you have any questions about this survey, please contact Dr. J. House, Principal Investigator and Faculty Supervisor at 407-823-0911 ext. 30911 or via email at jhouse@mail.ucf.edu. You may also contact the Co-Investigator and UCF doctoral candidate, Michelle White at 239-246-6157 or mwhite@fmhi.usf.edu.



- Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.

Thank you for taking the time and thought to complete this survey. I sincerely appreciate your participation. Your time and effort in helping me gather information is greatly valued.

Sincerely,

Michelle White

Michelle White, MA, BCBA
UCF Educational Leadership Doctoral Candidate



I am at least 18 years of age and completing this survey constitutes my informed consent.

Survey of Student Interests in Athletics, Fitness, and Sports
Modified from the NCAA *Survey of Student Interests in Athletics, Fitness and Sports Activities*
(1995) © National Collegiate Athletic Association. 2010. All rights reserved.

About the Survey: This survey deals with your interest and involvement in athletics, fitness, and sports activities. This means activities that require some significant **physical** effort on your part. We are interested in finding out about all kinds of physical activity you engage in, whether in or outside of school. Whether it's an established sport, an emerging type of athletics that isn't well known, or a kind of exercise that you do on your own, with friends, or in a class, we are interested in knowing about it. If it seems like we have a lot of questions, it's because students have many ways of being physically active, and we do not want to miss anything.

General Instructions: **Circle** one number for each answer unless otherwise specified. For questions about types of activities use the list to find the activity and write in the number corresponding to your choice. If an activity is not on the list, print the name of the activity in the space marked "Other".

Anonymity: This questionnaire is anonymous. You can be assured that your responses will remain anonymous when your questionnaire is submitted.

I. Your Interest in Athletic, Fitness, and Sports Activities

Circle one numbered answer for each question.

1. How interested are you in watching athletic, fitness, and sports events on TV or hearing them on the radio; going out to attend events as a spectator; and keeping up with events by following news about athletic, fitness, and sports activities?
 1. Extremely Interested
 2. Somewhat interested
 3. Not very interested
 4. Not at all interested

2. How interested are you in **participating** in athletic, fitness, or sports activities?
 1. Extremely interested
 2. Somewhat interested
 3. Not very interested
 4. Not at all interested

3. Do you believe that your high school placed too much, too little, or the right amount of emphasis on athletics?
 1. Too much emphasis
 2. The right amount
 3. Too little emphasis
 4. Don't know

II. Your Participation in High School Athletic, Fitness, and Sports Activities

You participate when you do the activity. Coaches, managers, trainers, referees, etc. are not considered participants. Use the **handout** to find activity codes and write in the numbers of your choices below. If you want to mention an activity that is not on the list, print the name of the activity in the spaces marked "Other".

4. Did you participate in any varsity sport(s) in high school?
Circle (1) for "NO" or (2) for "YES".

1. NO

2. YES



List the 2-digit code and indicate if you earned a varsity letter in that sport by circling (Y) for "YES" or (N) for "NO".

Continue to next page

Enter the 2-digit code
for each activity:

Did you earn a
varsity letter?

1 _____

Y N

2 _____

Y N

3 _____

Y N

4 Other _____
(Please print)

Y N


5 Other _____
(Please print)

Y N

5. Did you participate in any **other** athletic, fitness, or sports activities offered by your high school, other than required physical education classes?

Circle (1) for "NO" or (2) for "YES".

1. NO

2. YES 

Enter a 2-digit number for each activity:

1 _____

2 _____

3 _____

4 _____

5 Other: _____
(Please print)

6 Other: _____
(Please print)

6. Did you **participate** regularly in any athletic, fitness, or sports activities that were **NOT** sponsored by your high school? (Either organized by a league, local government, parks department, religious group, or club, or informal things you did on your own or with friends.)

Circle (1) for "NO" or (2) for "YES".

1. NO

2. YES 

Enter a 2-digit number for each activity:

1 _____


2 _____

3 _____

4 _____

5 Other: _____
(Please print)

6 Other: _____
(Please print)

Continue to next page 

III. Your Interest in Participating

Answer the following questions using these definitions.

Intercollegiate Teams have a head coach, staff, and competitive schedule against other colleges and universities. Students practice on a daily or weekly basis, may follow an individual program of off-season training, travel and occasionally miss classes. They frequently have access to academic support services including tutors and counselors. Some receive scholarships that cover all or a portion of the cost of their education.

Club Programs are student run and are often supervised by faculty advisors. These programs have an established practice schedule and a schedule of contests against other colleges or universities. There are usually no scholarships in club programs.

Competitive Intramural Programs are informal and open to all students. Events take place within the college or university among student teams or individual students. Competitive activities are those which end with a person or team "winning" or getting "first place". Teams that compete at the intramural level do not usually have a regular practice schedule.

Non-Competitive Intramural Programs do not involve competition and are offered to provide opportunities for physical fitness and recreation. These programs include both scheduled and non-credit classes and "open hours" at gyms, pools, and other athletic, fitness, and sports facilities.

7. Would you be **interested** in participating in any types of athletic, fitness, or sports activities in college that you are not now participating in? Consider that programs **could** be formed in addition to those that exist. Also consider activities for which you may not presently have the **ability** but think you could develop the ability if you were given the time and/or help.


Circle (1) for "NO" or (2) for "YES".

1. NO
2. YES 

7a. What is the **first** athletic/fitness activity or sport in which you would be interested in participating?

Enter a 2-digit number for the activity.

Activity/Sport _____ or Other: _____

Continue to next page 

Circle the number corresponding to the **level(s)** at which you would be interested in participating in this activity/sport.

| | Level |
|----------|----------------------------|
| 1 | Intercollegiate |
| 2 | Club |
| 3 | Intramural Competitive |
| 4 | Intramural Non-competitive |

7b. What is the **second** athletic/fitness activity or sport in which you would be interested in participating?

If none, go to Section IV, question 8.

Enter a 2-digit number for the activity.

Activity/Sport _____ or Other: _____

Circle the number corresponding to the **level(s)** at which you would be interested in participating in this activity/sport.

| | Level |
|----------|----------------------------|
| 1 | Intercollegiate |
| 2 | Club |
| 3 | Intramural Competitive |
| 4 | Intramural Non-competitive |

7c. What is the **third** athletic/fitness activity or sport in which you would be interested in participating?

If none, go to Section IV, question 8.

Enter a 2-digit number for the activity.

Activity/Sport _____ or Other: _____

Continue to next page

Circle the number corresponding to the **level(s)** at which you would be interested in participating in this activity/sport.

| | Level |
|----------|----------------------------|
| 1 | Intercollegiate |
| 2 | Club |
| 3 | Intramural Competitive |
| 4 | Intramural Non-competitive |

7d. What is the **fourth** athletic/fitness activity or sport in which you would be interested in participating?

If none, go to Section IV, question 8.

Enter a 2-digit number for the activity.

Activity/Sport _____ or Other: _____

Circle the number corresponding to the **level(s)** at which you would be interested in participating in this activity/sport.

| | Level |
|----------|----------------------------|
| 1 | Intercollegiate |
| 2 | Club |
| 3 | Intramural Competitive |
| 4 | Intramural Non-competitive |

IV. More About You

Finally, we would like to know a few more things about you for statistical purposes.

All of your answers on this questionnaire are anonymous.

8. Circle the number indicating your enrollment status:

1. Full-time
2. Part-time

Continue to next page

9. Circle the number indicating approximately how many hours of credit have you earned toward graduation not counting the courses you are currently taking:

1. Less than 30 credit hours
2. 31-60 credit hours
3. 61-90 credit hours
4. 91 or more credit hours

10. Circle the number indicating your gender:

1. Female
2. Male

11. Record your age: _____

12. Do you have any physical or mental condition(s) that challenge your daily activities in any way? Circle (1) for "NO" or (2) for "YES".

1. NO

2. YES



Describe the condition(s):

13. Circle the number indicating the race you consider yourself:

1. WHITE, (Not of Hispanic origin)
2. BLACK (African American), (Not of Hispanic origin)
3. HISPANIC
4. ASIAN or PACIFIC ISLANDER
5. AMERICAN INDIAN or ALASKAN NATIVE
6. OTHER: _____

14. Record the year you graduated from high school: _____

Thank you for your participation.

You have completed the survey. Stop here and submit your survey.



7

Athletic, Fitness, and Sports Activities

| | | | |
|----|----------------------------------|----|-----------------------------------|
| 01 | Aerobatics | 40 | Paddleball |
| 02 | Aerobics: Aerobics Classes | 41 | Pistol |
| 03 | Archery | 42 | Polo |
| 04 | Badminton | 43 | Racquetball |
| 05 | Baseball | 44 | Rhythmic Gymnastics |
| 06 | Basketball | 45 | Rifle |
| 07 | Bicycling | 46 | Rodeo |
| 08 | Billiards | 47 | Rugby |
| 09 | Body Building | 48 | Running- Road Races |
| 10 | Bowling | 49 | Sailing |
| 11 | Boxing | 50 | Scuba Diving |
| 12 | Broomball | 51 | Shuffleboard |
| 13 | Canoeing | 52 | Skating- Figure |
| 14 | Cheerleading | 53 | Skating- Roller or Rollerblade |
| 15 | Crew; Rowing | 54 | Skating- Speed |
| 16 | Cricket | 55 | Skiing- Cross Country |
| 17 | Cross-Country Running | 56 | Skiing- Down Hill |
| 18 | Curling | 57 | Skiing- Water |
| 19 | Dancing | 58 | Skish |
| 20 | Deck Tennis | 59 | Snorkeling |
| 21 | Diving | 60 | Soccer |
| 22 | Exercising; Working Out | 61 | Softball- Fast Pitch |
| 23 | Fencing | 62 | Softball- Slow Pitch |
| 24 | Fieldball | 63 | Speedball |
| 25 | Football- Tackle | 64 | Squash |
| 26 | Football- Touch | 65 | Surfing |
| 27 | Free Throwing | 66 | Swimming |
| 28 | Frisbee | 67 | Table Tennis |
| 29 | Golf | 68 | Tennis |
| 30 | Gymnastics | 69 | Track & Field (indoor or outdoor) |
| 31 | Handball | 70 | Trampoline |
| 32 | Hiking | 71 | Tumbling- Power or other |
| 33 | Horsemanship; Horseback Riding | 72 | Volleyball |
| 34 | Horseshoes | 73 | Walking- Speed or Power |
| 35 | Hockey- Field | 74 | Water Basketball |
| 36 | Hockey- Ice | 75 | Water Polo |
| 37 | Jogging | 76 | Weight Lifting |
| 38 | Judo; Karate; other Martial Arts | 77 | Wind Surfing |
| 39 | Lacrosse | 78 | Wrestling |

If you do not see your activity on this list, check the cross-reference guide on the back.

Cross-Reference

Specific track & field events like javelin, discus, hurdles, or pole vault should be listed as 69 Track & Field.

| | |
|-----------------------------|---|
| Biathlon | Please enter each event separately |
| Cycling | See 07 Bicycling |
| Diving [from diving board] | See 21 Diving |
| Diving- Scuba | See 50 Scuba Diving |
| Field Hockey | See 35 Hockey- Field |
| Gymnastics- Rhythmic | See 44 Rhythmic Gymnastics |
| Ice Skating | See entries under Skating or Hockey |
| Indoor Track | See 69 Track & Field |
| In-Line Skating | See 53 Skating- Roller |
| Karate | See 38 Judo, etc. |
| Marathon | If on road, see 48 Running If on track, see 69 Track & Field |
| Physical Training- Military | See 22 Exercise |
| Ping-Pong | See 67 Table Tennis |
| Pocket Billiards | See 08 Billiards |
| Polo [on Horseback] | See 42 Polo |
| Pool | See 08 Billiards |
| Power Tumbling | See 71 Tumbling |
| Power- Walking | See 73 Walking |
| Riding | See 33 Horsemanship |
| Rollerblading | See 53 Skating- Roller |
| Rowing | See 15 Crew |
| Running- Track events | See 69 Track & Field |
| Sculling | See 15 Crew |
| Speed- Walking | See 73 Walking |
| Slide Aerobics | See 02 Aerobics |
| Step Aerobics; Step Class | See 02 Aerobics |
| Tennis- Deck | See 20 Deck Tennis |
| Touch Football | See 26 Football- Touch |
| Triathlon | Please enter each event separately |
| Water Skiing | See 57 Skiing- Water |
| Working Out | See 22 Exercising |

If you still do not see the activity you are looking for, print it in the "Other" space provided with each question.

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