ATHLETIC IDENTITY AND EGO IDENTITY STATUS AS PREDICTORS OF

CAREER MATURITY AMONG HIGH SCHOOL STUDENTS

A Dissertation Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Philosophy

by

Jeffrey C. Adams

May, 2011

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Abstract

The purpose of the present study was to examine the relationship between degree

of identification with the role of athlete (athletic identity), identity foreclosure, and career

maturity among high school students. In the current study 275 high school students

completed the Athletic Identity Measurement Scale (AIMS), The Extended Objective

Measure of Ego Identity Status (EOM-EIS-2), and the Attitude scale (Screening Form A-

2) of the Career Maturity Inventory. Pearson product moment correlations demonstrated

that identity foreclosure scores were inversely related to career maturity. Athletic

identity was also positively correlated with identity foreclosure. Multiple regression

analyses were employed to test the mediation effects of identity foreclosure, in explaining

the relation between athletic identity and career maturity. However, the analyses

indicated that athletic identity was not significantly related to career maturity.

Consequently, no mediational path was detected. Three separate exploratory MANOVAs

were then performed to examine the effects of participation in interscholastic athletics

(athletes [n = 133] vs. non-athletes [n = 142]), gender (males [n = 141] vs. females [n =

134]), and grade level (9th and 10th grade students [n = 53] vs. 11th and 12 grade

students [n = 222]) on identity foreclosure, athletic identity and career maturity scores.

The results indicated that athletes displayed significantly higher scores on athletic

identity and identity foreclosure than their non-athlete peers. Males also scored

significantly higher in athletic identity and identity foreclosure than females. Finally,

students in lower grades exhibited significantly greater levels of athletic identity and identity foreclosed thinking. The only significant differences in career maturity were found for gender, with females exhibiting more mature vocational attitudes than males. The findings offered a glimpse at the relationship between identity and career development variables within a high school population. While student-athletes demonstrated a strong commitment to the athlete role and greater identity foreclosure, they did not appear to be developmentally delayed, nor distinct from non-athletes in terms of their vocational maturity.

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CHAPTER I

INTRODUCTION

High school has been identified as an important period of adolescent psychosocial development (Erikson, 1963; Marcia, 1966; Super, 1985). During this time adolescents generally engage in a host of exploratory behaviors and activities that ultimately influence who and what they become (Erikson, 1963; Marcia, 1966). Research has consistently demonstrated that one of the most common activities in which high school students engage is athletics (Eccles & Barber, 1999), and increasing numbers of students are becoming involved in high school sports each year (Howard & Gillis, 2006). Given the important role of sports during this time period, it is important to understand the ways in which high school athletic participation may impact adolescent development. However, research in this area has been inconsistent and there are currently findings indicating that sport participation can have both positive (Broh, 2002; Mahoney, 2000) and negative (Eccles & Barber, 1999; Eccles, Barber, Stone, & Hunt, 2003) effects on the psychosocial development of youth and young adults.

One of the most important aspects of adolescent psychosocial development is the establishment of an identity (Erikson, 1963). Our current understanding of the identity formation process originates from the work of Erikson (1959) and Marcia (1966). Erikson proposed a lifespan developmental model based on the assumption that as people age they move through a series of psychosocial stages. Erikson (1968) identified eight stages, each characterized by a specific crisis or conflict that the individual must face and

resolve. Erikson's fifth stage, identity vs. role confusion is the most important developmental period from an identity perspective. It is during this time that the crisis between identity and role confusion reaches its ascendance. A proper balance of identity and identity confusion represents a successful resolution of this crisis and involves working through the demands of physiological development, as well as the demands put on the adolescent by his or her parents and by society (Erikson, 1968).

Marcia (1966) built on these ideas giving particular importance to the constructs of crisis and commitment. For Marcia, determining the degree of the crisis and commitment experienced by an individual would indicate the extent of his or her resolution of the identity formation task. The intersection of crisis and commitment within Marcia's theory produces four identity types or statuses associated with varying degrees of exploratory behavior and commitment. The four identity statuses or modes of resolution according to Marcia (1966) are: (a) identity achievement, (b) identity diffusion, (c) identity moratorium, and (d) identity foreclosure. A more thorough review of the literature associated with the work of Erikson and Marcia will be covered in Chapter 2.

Research on the identity development process with athletes has generally focused on two major variables: athletic identity (Brewer, Van Raalte & Linder, 1993) and identity foreclosure (Murphy, Petitpas, & Brewer, 1996). It has been suggested that athletes derive a certain amount of their identity from sport and generally structure their lives to be compatible with athletic advancement. Athletic identity or the degree to which an individual identifies with the athlete role (Brewer et al.) represents one attempt to assess an individual's commitment to athletics. Empirical studies indicate that a strong

athletic identity has been associated with positive outcomes within the sport domain (Danish, 1983; Werthner & Orlick, 1986). However, it has also been linked to a variety of negative developmental, emotional and vocational concerns (Cornelius, 1995; Mainwaring, 1999; Pearson & Petitpas, 1990).

The second identity construct associated with research on athletes is identity foreclosure. Identity foreclosure is said to exist when an individual prematurely commits to a career or lifestyle without adequate exploration of available opportunities and ideologies (Marcia, 1966). The individual with a foreclosed identity fails to evaluate internal needs and values and instead internalizes an external or socially acceptable role identity (Marcia, 1993). Researchers have frequently found evidence of identity foreclosure in athletic populations (Blann, 1985; Petitpas & Champagne, 1988; Kennedy & Dimick, 1987; Sowa & Gressard, 1983). It has been suggested that certain characteristics of the athletic environment may be responsible for the empirical link between sport participation and identity foreclosure (Adler & Adler, 1991; Petitpas, Danish, McKelvain, & Murphy, 1992).

Within his early work, Erikson (1950, 1959) accounted for the formation of an occupational identity and he identified making an occupational choice as critical to the successful resolution of an identity crisis. This conceptual framework strongly influenced the work of Donald Super. Super's (1957, 1975) theory of career development examines this process across the lifespan and assumes that individuals cycle through five developmental stages. Associated with each of Super's stages is a series of tasks and the extent to which an individual successfully accomplishes the relevant tasks determines the degree of vocational adjustment that the individual will experience in

subsequent life stages (Super, Crites, Hummel, Moser, Overstreet, & Warnath, 1957).

One of the most important constructs to emerge from Super's (1957) theory is that of

vocational or career maturity. Career maturity can be understood as an individual's

readiness to make informed career decisions and it is associated with successfully

accomplishing the five stages "on schedule" and in an appropriate manner (Super, 1975).

Previous research examining the career maturity of athletes has been inconsistent.

Several studies have indicated that athletes demonstrate lower levels of career maturity

than their non-athlete peers (Blann, 1985; Davis-Hill, 2001; Kennedy & Dimick, 1987;

Smallman & Sowa, 1996), while others have demonstrated no difference in the career

maturity or career readiness of athletes and non-athletes (Ihle-Helledy, 2006; Neyer,

1996).

The current study aims to gain insight into the nature of the relationships between

ego identity status, athletic identity and career maturity. Previously, a symbiotic

relationship has been hypothesized to exist between these variables (Brewer et al., 1993;

Murphy et al., 1996). The crux of this proposed relationship is that athletes with a strong

and exclusive commitment to the athlete role may have forgone the necessary exploration

of other possible roles and are likely in a state of identity foreclosure (Brewer et al.,

1993). Furthermore, failing to engage in the appropriate adolescent exploratory

behaviors can also impact one's career development, as students are then forced to make

vocational decisions that are beyond their development capacity (Super, 1990). This

deficiency in terms of vocational readiness can be better understood as career or

vocational immaturity (Savickas, 1990).

To date only three empirical studies have examined this precise combination of variables (Murphy et al., 1996; Neyer, 1996; Whipple, 2009). Furthermore, a review of the literature uncovers no studies analyzing this grouping of variables within a high school population. The purpose of the current study, therefore, is to address this gap in the research literature by examining the identity and career development of high school students. More specifically the study aims to determine whether participation in high school athletics impacts students' ego identity status, the strength of their athletic identity and their level of career maturity.

This review will begin with an introduction to identity development through a discussion of the theories of Erikson and Marcia and a review of recent literature in this area. Second, high school athletic participation will be discussed in terms of its positive and negative impacts on adolescent development and new approaches seeking to maximize the positive growth potential of sport will be introduced. The construct of athletic identity will then be reviewed to explore how it might contribute to the overall identity formation process, including its relationship to identity foreclosure. The review will then switch its focus to the vocational domain by linking identity and career development through Super's (1957) theory and research on adolescent sport and non-sport participants. Lastly, the concept of career maturity will be discussed and the relevant literature in this area reviewed for both athletes and non-athletes.

CHAPTER II

REVIEW OF RELATED LITERATURE

<u>Erikson and Identity Development</u>

Identity development is thought to be a crucial element of adolescence and serves as the basis for whom and what an individual becomes as an adult. A number of classic theorists have established a tradition of identity theory (including Blos, 1962; Cooley, 1902; James, 1892; Mead, 1934), but arguably the most influential is Erik Erikson. Erikson's conception clearly distinguished identity from self, which is loosely defined as that part of the person that knows and experiences reality (Harter, 1988), and self-concept, which can be characterized as one's awareness of "the internal organization of external roles of conduct" (Hormuth, 1990, p.2). Erikson's (1968) ideas on identity also balanced the intraindividual focus of psychology and the environmental focus of sociology (Côté, 1993; Côté & Levine, 1987, 1988), and included both internal and social-contextual dimensions. Overall, Erikson's view of identity is as multidimensional, broad, and inclusive, as his theory is as a whole, and his ideas paved the way for nearly half a century of further theorizing and research on identity (Schwartz, 2001).

At the foundation of Erikson's (1959) model is the epigenetic principle. The epigenetic principle holds that development occurs in sequential, clearly defined stages, and that each stage must be satisfactorily resolved for development to proceed smoothly. According to the epigenetic model, if successful resolution of a particular stage does not

occur, all subsequent stages reflect that failure in the form of physical, cognitive, social, or emotional maladjustment (Erikson, 1959). This principle in turn, gave rise to Erikson's stage development model.

Erikson's model of psychosocial development is based on the assumption that as people age, they progress through a series of developmental stages. Erikson proposed eight stages encompassing development over the lifespan, with each stage characterized in terms of polarities of ego qualities (Perna, 1991). Ego qualities are described as basic attitudes that emerge as a consequence of the interaction between the developing competencies of the individual and the pressures and sanctions of the social environment. Within each of Erikson's eight stages there is a specific crisis or conflict that the individual must face and work through to resolve. The term crisis according to Erikson (1968) "is used here in a developmental sense to connote not a threat of catastrophe, but a turning point, a crucial period of increased vulnerability and heightened potential" (p. 96). In addition to this crisis period, each of Erikson's stages also includes a specific goal reflecting the ideal resolution of this crisis.

The stages in Erikson's model are sequential, in that they occur in a predetermined order and during a specified timeframe. The stages in the model are not, however, hierarchical meaning that one need not successfully fulfill or resolve one stage before moving onto the next. Erikson (1968) recognized, though that the poor resolution of earlier stages could impact an individual's continued development. Thus, incomplete, or insufficiently completed tasks manifest themselves as problems later in life. The time frame and the associated developmental tasks within Erikson's model include (a) infancy – trust versus mistrust, (b) early childhood – autonomy versus shame/doubt, (c) play age

– initiative versus guilt, (d) school age – industry versus inferiority, (e) adolescence –

identity versus role confusion, (f) young adulthood – intimacy versus isolation, (g)

adulthood – generativity versus stagnation, and (h) old age – integrity versus despair

(Erikson, 1968).

From an identity perspective, Erikson's fifth stage, identity vs. role confusion is

the most important developmental period (Erikson, 1968). While ego identity neither

begins nor ends with adolescence, it is during this time that the crisis between identity

and role confusion reaches its ascendance. Erikson (1968, 1982) believed that identity

emerges from two sources: the affirmation or rejection of childhood identifications and

the historical and social context that dictates conformity to certain standards. A common

dilemma that often results is that an individual must either reject the values of his or her

parents or reject those of his or her peer group, either of which can intensify one's

identity confusion. However, it is important to note that some amount of identity

confusion is both normal and necessary (Erikson, 1968). Adolescents must experience

some doubt and confusion about who they are before they can develop a stable identity

(Feist & Feist, 1998). Ultimately, a proper balance of identity and identity confusion

results in (1) the establishment of faith in some sort of ideological principle; (2) the

ability to freely decide how one should behave, (3) trust in peers and adults who give

advice regarding goals and aspirations; and (4) an eventual choice of occupation (Feist &

Feist, 1998).

Erikson's theory is descriptive in nature, but is not readily open to testing and

research (Evans, Forney, & Guido-DiBrito, 1998). In addition, although Erikson

provides an illuminating description of the various features of identity, he nevertheless

fails to offer a precise definition of the construct. Instead, he discusses identity in terms of one's conscious sense of individual identity, one's unconscious striving for continuity of personal character, and one's ability to maintain an inner solidarity within a group's ideals and identity (Erikson, 1959). In addition, Erikson (1968) described the formation of an identity as the process of selectively emphasizing particular identifications from childhood and gradually integrating these and other self-images.

Marcia and Ego Identity Status

Perhaps as a result of these shortcomings, much of the research on identity formation has used Marcia's (1966) operationalization of two Eriksonian themes - *crisis* and *commitment*. Crisis according to Marcia (1966) refers to a period of decision-making, where alternatives are explored, options tried, and new ways of being imagined. A crisis is "a turning point, a crucial period of increased vulnerability and heightened potential, and, therefore, the ontogenetic source of generational strength and maladjustment" (Marcia, 1967, p. 118). Commitment, on the other hand, is a relatively stable condition which refers to making choices and settling on a self-definition (Marcia, 1966). Marcia reasoned that determining whether crisis and commitment had been experienced by an individual would indicate the extent of one's resolution of the identity formation task.

Marcia (1966) originally employed a qualitative approach in an effort to assess the nature and quality of the resolution of the identity crisis. Marcia interviewed subjects and assessed identity status according to three criteria: (a) what is the degree of commitment to an occupation or ideology? (b) was the commitment preceded by a

crisis?, and (c) did an external versus internal frame of reference characterize the choices? Within Marcia's framework, the intersection of crisis and commitment, therefore, produces four identity types or statuses depending on the degree of exploratory behavior and commitment. Marcia's four identity types represent different levels of identity resolution, but unlike Erikson, these do not appear to be developmental stages. Rather the identity statuses are probably better characterized as character types (Côté & Levine, 1988; Grotevant, 1986; Meeus, Iedema, Helsen, & Vollebergh, 1999; van Hoof, 1999). While each status has been associated a distinct set of personality characteristics, there is currently no clearly established developmental sequencing of statuses (Waterman, 1982). Until further research has clarified the developmental utility of identity status, it appears that it will be more useful as a character typology than as a developmental model (Meeus et al., 1999).

The four identity statuses or modes of resolution according to Marcia (1966) are: (a) identity achievement, (b) identity diffusion, (c) identity moratorium, and (d) identity foreclosure (Marcia, 1966). From Marcia's (1966) perspective an identity achieved individual has experienced a crisis period and has made a commitment about who they will be. Rather than blindly accepting a commitment, these individuals have engaged in exploratory behavior and have chosen the option that is best for them. Marcia (1966) originally considered the achieved status to be the endpoint of the identity formation process. In addition, achievement is often thought of as the most mature status because it is associated with balanced thinking (Boyes & Chandler, 1992), effective choices (Marcia, 1993), and deep interpersonal relationships (Craig-Bray, Adams, & Dobson, 1988; Orlofsky, Marcia, & Lesser, 1973). Identity achieved youth also score higher on

measures of autonomy and are less reliant on others to make their decisions (Marcia, 1966, 1967). In terms of cognitive capacities, the identity achieved function well under stress and use more planful, rational and logical decision making strategies than other identity statuses (Blustein & Phillips, 1990; Boyes & Chandler, 1992). The identity achieved also demonstrate the highest levels of ego development (Berzonsky & Adams, 1999) and are generally satisfied with the way they are (Makros & McCabe, 2001).

Identity diffused individuals have experienced neither crisis nor commitment. They have not actively engaged in exploration, nor are they concerned about identity issues (Marcia, 1966). Diffused individuals are generally apathetic and disinterested (Marcia, 1980) and are often at risk for a number of maladaptive outcomes, including academic (Berzonsky, 1985) and drug (Jones, 1992) problems. They also tend to be overly affected by situational variations (Schwartz, Mullis, & Dunham, 1998). Interestingly, diffusion also appears to share many personality characteristics with bulimia (Auslander & Dunham, 1996), including emotional distance from one's family of origin (Adams, Abraham, & Markstrom, 1987; Jackson, Dunham, & Kidwell, 1990) and poor interpersonal skills. In general terms, diffusion is a lack of any sort of basic identity structure that might hold the person together and afford an individual a solid basis for making choices and following a consistent life path (Schwartz, 2001).

Individuals are said to be in a state of identity moratorium if they are currently experiencing a crisis period, but still remain vague about making a commitment. These individuals are actively exploring and examining options, but have not yet arrived at the right choices for themselves (Marcia, 1966). The moratorium status may also be associated with storm and stress (Kidwell, Dunham, Bacho, Pastorino, & Portes, 1995).

Empirical studies have found moratoriums to be consistently more anxious than achievement or foreclosed individuals (Marcia, 1967; Podd, Marcia, & Rubin, 1970; Sterling & Van Horn, 1989). Moratoriums may be volatile and intense in their interpersonal relationships, and while possessing the capacity for intimacy, they shy away from the commitment demanded by such a relationship (Dyk & Adams, 1990; Josselson, 1987; Orlofsky et al., 1973). In many ways, however, moratoriums resemble achievements in their cognitive complexity, higher levels of moral reasoning, information processing style and failure to conform to or rely on the judgments of others for making decisions (Skoe & Marcia, 1991; Slugoski, Marcia, & Koopman, 1984). Moratoriums also demonstrate greater degrees of skepticism than other identity statuses (Boyes & Chandler, 1992), as well as greater openness to experience (Stephen, Fraser, & Marcia, 1992; Tesch & Cameron, 1987).

Identity foreclosed individuals have prematurely committed to an ideology or lifestyle without adequate exploration of available alternatives (Marcia, 1966). These individuals have experienced no crisis period and may have committed to the values, beliefs, and ideas of their childhood without examination. Individuals within this stage are often carrying-on family traditions or leading the life they believe is expected of them (Marcia, 1966). Generally foreclosure is associated with some degree of closed-mindedness, smug self-satisfaction, and rigidity (Marcia, 1980). Empirical studies have consistently found foreclosed individuals of both genders to be the most authoritarian in attitude of any of the identity statuses (Côté & Levine, 1983; Marcia, 1966, 1967; Schenkel & Marcia, 1972). These individuals tend to seek approval and base actions on the opinions of others. As a result, measures of foreclosures' levels of autonomy have

consistently produced low scores (Marcia, 1966, 1967, 1993). Perhaps as a result of their

rigid adherence to authoritarian values, foreclosures appear to be the least anxious of the

identity groups (Marcia, 1966; Marcia & Friedman, 1970; Schenkel & Marcia, 1972) and

the least open to new experiences (Stephen et al., 1992; Tesch & Cameron, 1987).

Identity foreclosure has also been associated with lower levels of moral reasoning, an

external locus of control, and the use of less refined cognitive and information processing

strategies (Kroger, 2004).

Research on Ego Identity Status and Adolescents

Marcia's theory (1966, 1980) has been widely used to examine the development

of identity among adolescents (Archer, 1989; Marcia, 1980; Waterman, 1982). Early

studies categorizing high school students into one of the four identity statuses (Archer,

1982; Meilman, 1979) generally concluded that a substantial majority of adolescents

were either engaged in no identity activity (identity diffusion) or had made nonreflective

commitments (identity foreclosure). Other studies using continuous measures of identity

status found that diffusion scores (Campbell, Adams, & Dobson, 1984; Fregeau &

Barker, 1986) and foreclosure scores decrease from early to late adolescence, but that

levels of identity achievement do not change (Fregeau & Barker, 1986). Additional

researchers have extended Marcia's methods to incorporate other domains of experience,

including family life, friendships, dating, and sex roles (Goossens, 2001; Grotevant,

1998). These studies have shown that the proportion of identity achievers increases

steadily from the years before high school to the late college years, while the proportion

of young people manifesting identity diffusion decreases (Grotevant & Cooper, 1988;

Kroger, 2003; Moshman, 1998). With regard to vocational choice specifically, Waterman (1985) found no differences in the frequency of the four identity statuses between the high school underclass years and upperclass years. Therefore, it appears that limited changes in identity status within this domain occur throughout the high school years.

Research on gender differences in identity formation using Marcia's framework has generally been inconsistent. In a study by Archer (1989), gender differences in various aspects of identity formation were studied for students from Grades 6, 8, 10, and 12 using Marcia's (1966) Ego Identity Interview. When the ego identity statuses in the domains of vocational choice, religious beliefs, political ideology, and sex-role orientation were examined, males were more likely to be foreclosed than were females. Overall, however, there were few significant gender differences found on the variables of process, domain, and timing of identity formation. This finding suggests that ego identity formation is a similar process for males and females. More recently, Lewis (2003) examined the differences in ego identity statuses of college students in relation to their age, ethnicity and gender. Although gender differences were not found for overall ego identity scores, men had higher levels of identity diffusion and foreclosure in the interpersonal dimension than did women. However, women were more likely to have higher levels of identity achievement than were men at most ages between 18 and 41.

High School Athletic Participation

The developmental theories of Erikson (1963) and Marcia (1966) emphasize the high school years as a crucial time period in which adolescents engage in a variety of

exploratory behaviors and identity-shaping activities. Research has consistently

demonstrated that one of most popular organized activities in which adolescents

participate during these years is sport (Eccles & Barber, 1999; Larson & Verma, 1999).

In fact, the most recent survey data published by the National Federation of State High

School Associations (NFHS) indicates that for the 18th consecutive year, the number of

participants in high school athletics increased in 2006-07 (NFHS, 2007). The NFHS data

found that a total of 7,342,910 students participated nationwide in high school athletics

during the 2006-07 school year. This means that well over half of all of students enrolled

in high schools participate in athletics (Howard & Gillis, 2006).

Research has long indicated that athletic participation can have long-lasting

impacts on the personal development of adolescents (Loy, McPherson, & Kenyon, 1978;

Martens, 1978; Ogilvie & Tutko, 1971). Much of this empirical work has focused on the

presumed ability of sports to build character and promote positive developmental

outcomes. In this manner, athletic participation has been linked to increased self-esteem,

confidence, citizenship, academic achievement, and decreased delinquency (Broh, 2002;

Mahoney, 2000). Other studies have also revealed associations between high school

sport participation and higher academic performance, greater likelihood of attending

college, greater autonomy and satisfaction in one's first job (Barber, Eccles & Stone,

2001), along with higher levels of self-knowledge, emotional regulation, problem

solving, goal attainment, team work, and skill development (Hansen, Larson & Dworkin,

2003; Marsh & Kleitman, 2003). In contrast, researchers have also associated negative

outcomes with adolescent involvement in athletics. These negative outcomes include

increased use of alcohol (Eccles & Barber, 1999; Eccles et al., 2003), use of smokeless

tobacco (Melnick, Miller, Sabo, Farrell, & Barnes, 2001), stress, dropout, burnout, and low morality reasoning and low self-esteem (Gould, Udry, Tuffey, & Loehr, 1996; Shields & Bredemeier, 2001). Furthermore it has been suggested that socialization processes in sport may actually legitimize aggressive behaviors (Shields & Bredemeier, 1995).

Recently there has been renewed interest in understanding the processes by which development occurs in adolescent activity settings (Fraser-Thomas & Côté, 2009; Holt, Tink, Mandigo, & Fox, 2008). Dworkin, Larson, and Hansen (2003) qualitatively examined youths' "growth experiences," which they defined as "experiences that teach you something or expand you in some way, that give you new skills, new attitudes, or new ways of interacting with others" (p. 20). Dworkin et al. conducted focus groups with adolescents who were highly involved in school and community-based voluntary structured activities (e.g., sports, fine arts, performance arts, clubs, and organizations). These focus groups highlighted growth experiences in six key areas: (a) exploration and identity, (b) initiative, (c) self-regulation, (d) peer relationships, (e) teamwork and social skills, and (f) adult networks and social capital. This study led to the development of the Youth Experiences Survey (YES; Hansen & Larson, 2005) which was used in successive studies to examine personal, interpersonal, and negative experiences in different activity contexts.

Follow-up studies using the YES are of particular interest to the understanding of adolescent development. Hansen et al. (2003) in a study of high school students examined the developmental experiences of adolescents in five activity categories (i.e., sports, faith-based/service, academic/leadership, performance/fine arts, and

community/vocational). While adolescents involved in sport activities reported moderately high rates of personal development experiences (i.e., self-knowledge, goal-setting, effort, time management, emotional regulation, and physical skills) and interpersonal development experiences (i.e., teamwork, social skills, leadership, and diverse peer relations), they also reported the highest rates of negative experiences (i.e., stress, negative peer interactions, social exclusion, negative group dynamics, and inappropriate adult behavior). Further, Hansen and Larson's (2007) study, found that adolescents involved in sport spent the most time in their activity, had a leadership role more often, and had smaller group sizes, all factors found to amplify their positive developmental experiences.

The driving force behind much of the new interest in understanding the developmental experiences associated with sport, is the underlying belief that if proper guidelines and procedures are in place, athletics have the potential to transmit important life skills and play a crucial role in the overall development of adolescents (Holt et al., 2008). For example, Fraser-Thomas, Côté, and Deakin (2005) emphasized the important roles of policy makers, sport programmers, parents, and coaches in assuring youths' positive developmental experiences and outcomes by considering youths' developmental stages, conducting programs in appropriate settings, and aiming to develop youths' attributes. Further, Petitpas, Cornelius, Van Raalte, and Jones (2005) offered a framework for planning programs that foster psychosocial development, emphasizing the roles of context, internal and external assets, and research and evaluation.

Athletic Identity

Given the prominence of athletic participation in the lives of adolescents and the strong outcomes associated with this, it follows that involvement in sports may specifically impact identity development. Much of the research on identity formation among adolescent athletes has focused on the strength of their commitment to the athlete role. Within the literature, "the degree to which an individual identifies with the athlete role" has been termed "athletic identity" (Brewer et al., 1993). Athletic identity is best conceptualized as one's self-identity in the sport domain. Initial sport research indicates that the athletic role constitutes a meaningful dimension of self-identity and influences various responses of both athletes and nonathletes (Brewer, 1990; Brewer et al.; Danish, 1983; Kendzierski, 1988). These studies generally indicate that the way in which an individual responds to self-referent situations within sport varies with the degree to which he or she identifies with the athletic role. In particular, an individual with a strong athletic identity would be more likely to interpret sport-related events in terms of how they impact his or her athletic functioning than would an individual who is less committed to the athlete role (Ryska, 2002). In other words, an individual with a strong athletic identity possesses an athlete self-schema and processes information from an athletic perspective (Brewer et al.). Thus, someone with a strong athletic identity might think about how their nutritional intake, sleeping habits, or other personal variables may affect their sport performance.

Athletic identity has become one of the more widely researched constructs within the sport psychology literature (Gill & Williams, 2008), and links to a variety of demographic variables have been investigated. Overall, findings have typically

indicated that athletic identity is negatively correlated with age (Blackburn, 2004; Brewer et al., 1993). This may suggest that as individuals mature and become exposed to a variety of activities and influences, their exclusive identification with the athlete role decreases. With regard to gender, higher levels of athletic identity have consistently been demonstrated by males (Brewer et al.; Krylowicz, 2000; Murphy et al., 1996; Nasco & Webb, 2006; Van Raalte, Brewer & Schmelzer, 1997).

Empirical studies have also highlighted numerous benefits and limitations associated with a strong athletic identity. Within the athletic domain, a strong identification with the athlete role can be functional, as it is related to a commitment to training and a focus on sports goals (Horton & Mack, 2000). A strong athletic identity can also provide the motivation and discipline necessary for intense training and success in high level sport (Callero, 1985; Danish, 1983). In addition, it has been suggested that a strong and exclusive commitment to the athletic role can have positive effects on athletic performance (Danish, 1983; Werthner & Orlick, 1986) and health and fitness (Brewer et al., 1993). In fact, within the field of exercise psychology, athletic identity has been empirically linked to exercise involvement (Anderson, 2004) and to greater experience of positive psychological consequences of training, such as enhanced body image, increased self-confidence, and decreased anxiety (Horton & Mack, 2000). Outside of the sport domain, athletic identity has been linked to positive self-perceptions such as a stable self-concept (Danish, 1983), increased extroversion (Colley, Roberts, & Chipps, 1985), greater global self-esteem (Marsh, Perry, Horsely, & Roche, 1995), and enhanced self-confidence and social interaction (Petitpas, 1978). Individuals with a strong athletic

identity have also scored high on tests of time, relationship, and obligation management (Cornelius, 1995).

Unfortunately the overcommitment to the athlete role can also lead to dysfunctional practices such as overtraining and experiencing anxiety when not training (Coen & Ogles, 1993). Other potential dangers of a strong athletic identity may include being at greater risk of emotional and psychological distress upon withdrawal from sport, after being cut from the team or forced to deal with an injury (Mainwaring, 1999; Webb, Nasco, Riley, & Headrick, 1998). A number of authors have, in fact, suggested that individuals with a strong athletic identity are vulnerable to emotional difficulties when they experience an injury that impairs their ability to perform in their sport or exercise activity (Deutsch, 1985; Eldridge, 1983; Heyman, 1986; Ogilvie, 1989; Pearson & Petitpas, 1990). In one study examining injured athletes, Brewer (1990) found high levels of athletic identity to be associated with higher levels of post-injury depression. Strong identification with the athletic role has also been found to contribute to negative self-perceptions concerning academic achievement (Cornelius, 1995), social relations (Hughes & Coakley, 1991) and may also be associated with feelings of social isolation (Brewer et al., 1993). Other studies have demonstrated inhibited decision making skills (Pearson & Petitpas, 1990) and low coping resources (Sinclair & Orlick, 1993) among individuals with a strong and exclusive commitment to the athletic role.

A potential explanation for the negative consequences of a strong and exclusive athletic identity can once again be traced back to the developmental theories of Erikson (1959) and Marcia (1966). Erikson (1963) identified adolescence as the stage in life during which individuals form a true self-identity. True identity formation resides in

commitment to occupational and ideological options most congruent with an individual's principles, needs, interests, and abilities (Marcia, 1980). Such a commitment necessitates an active exploration of different roles and behaviors and the accomplishment of particular developmental tasks. Sports participation may interfere with this process, as in order to be successful, athletes may make a premature commitment to athletics (often before or during early adolescence) prior to exploring other possible areas of interest (Brewer et al., 1993).

Previous research has highlighted several possible explanations for this early commitment to athletics. First, Webb et al. (1998) state that athletic talent is often recognized in elementary school and its development can become a central preoccupation for the child and the adults in his or her life. Athletes may also believe that they must give total dedication to their sport, as failing to do so could result in another athlete passing them by, or taking their place on the team (Petitpas et al., 1992). In addition, the developmental task of establishing an identity through exploration is sometimes not experienced, as it is inconsistent with the conformity, obedience and structure required by athletics (Petitpas & Champagne, 1988).

Another reason for the early commitment to the athletic role is that one's sport participation provides a built in support system in the form of teammates (McFarland, 1982). McFarland (1982) and Pearson and Petitpas (1990) reported that teammates contribute to the perpetuation of the athletic culture and the strength of athletic identity due to group homogeneity. Increased feelings of territoriality may be fostered within this group, which can keep the athlete separate from other social roles. Lastly, the lives of athletes may become compartmentalized into multiple, competing roles (e.g., athlete,

student, and social being) that demand a great deal of time and energy. To resolve this conflict, athletes may adjust their roles and goals, which may mean a withdrawal from student and social roles and a focus of time and energy on the athlete role (Adler & Adler, 1991). Adler and Adler (1991) termed this transformation "role engulfment" and research has demonstrated that it can have lasting impacts on adolescent development. For instance, Malmisur (1976) found that sport participation can indeed arrest ego development due to social pressures to conform solely to the athlete role that exist within the athletic environment.

The possible connection between athletic identity and identity foreclosure is an important consideration within the current study. The commitment of one's identity to the athletic role without exploration of alternatives indicates a state of identity foreclosure, which precludes the achievement of a true identity (Marcia, 1980). Researchers have found evidence of identity foreclosure among intercollegiate athletes in a number of studies (Brown, Glastetter-Fender, & Shelton, 2000; Good et al., 1993; Linnemeyer & Brown, 2010; Nelson, 1983; Petitpas & Champagne, 1988), meaning that at least some athletes commit so strongly and exclusively to the athlete role that they fail to engage in the exploratory behaviors necessary for a well-established identity. In one study, Petitpas and Champagne (1988) found a lack of autonomy, low moral development, and authoritarian thinking to be related to athletic participation and identity foreclosure. Other research has demonstrated a relationship between identity foreclosure and unrealistic educational plans among athletes (Blann, 1985; Sowa & Gressard, 1983). In another study, Murphy et al. (1996) found that male and female Division I college athletes reported significantly higher identity foreclosure scores than did non-varsity

athletes. Their results indicated that athletes in higher profile sports including basketball, football, and hockey had significantly higher identity foreclosure scores than athletes in other sports. In addition to these quantitative studies, at least one qualitative study has provided a description of identity foreclosure among athletes. Sparkes (1998) depicted the process through which a national level horse rider and college swimmer, Rachel, attempted to come to terms with a serious illness that upset her Olympic riding dreams. Sparkes describes Rachel's emerging high performance body self and glorified self and their eventual demise, along with the fragmentation of Rachel's identity that followed.

There is, however, some research that does not confirm the presence of identity foreclosure among college athletes. Perna, Zaichkowsky, and Bocknek (1996) found that the identity statuses of male athletes and nonathletes at the time of graduation, as indicated by identity and intimacy scores on the Modified Erikson Psychosocial Stage Inventory (MEPSI), were not significantly different. Similar results were found by other researchers (Miller & Kerr, 2003; Rivas-Quinones, 2003). Rivas-Quinones noted that student-athletes did not prematurely foreclose on a career choice at levels higher than that found among a group of non-athletes. In their study of university student athletes using in-depth interviews, Miller and Kerr found that their participants engaged in meaningful exploration of and commitment to student and professional roles, thereby suggesting they did not experience identity foreclosure. These findings indicate that the identity development of athletes may be more complex than previously thought and that the hypothesis of a strong athletic participation and identity foreclosure link "may have been overgeneralized in the literature" (Perna et al., 1996, p. 85).

Super's Theory of Career Development

Erikson (1963) described identity formation as the primary task of adolescence. However, Erikson (1950, 1959) also indicated that forming an occupational identity and eventually making an occupational choice is critical to resolving the identity crisis successfully. This latter view is similar to that of Donald Super (1957, 1980) who proposed that career development occurs throughout the lifespan and asserted that the process of career exploration and decision making is central to adolescence. Both Super and Erikson also theorized that development is comprised of stages that are characterized by specific tasks negotiated intrapsychically through the development of specific attitudes and socially through specific behaviors (Raskin, 1985). Furthermore, Erikson's theorizing about identity formation and Super's discussion of the self-concept within the context of career development can be viewed as related components of the process of intrapsychic development during adolescence (Wallace-Broscious, Serafica & Osipow, 1994). Consequently present knowledge about career and identity development during adolescence may benefit from a better understanding of the work of Erikson (1959, 1963) and Super (1957) and how these theories impact and inform one another.

Super's (1957) theory describes the process of vocational development across the entire life span and includes multiple life roles. According to this theory, individuals cycle through five non-biologically determined states. The five vocational development stages according to Super (1975) are: growth, exploration, establishment, maintenance and decline. Associated with each of these stages is a series of tasks. The extent to which an individual successfully accomplishes the relevant tasks ultimately determines

the degree of vocational adjustment that the individual will experience in subsequent life stages (Super, 1957).

In the growth stage, an individual begins to develop his or her self-concept (Super, 1957). This stage also involves an individual's first introduction to the world of occupations (Super, 1990). Research suggests that children hold broad stereotypes about jobs that allow them to differentiate between occupations and to begin to develop future career orientations (Gottfredson, 1996). Individuals in the exploration stage gather more specific information about themselves and the world of work. The stereotypes learned in the growth stage are refined as adolescents and young adults learn more about the world of work and more accurate information is obtained about specific occupations. Individuals then act on this information by matching their interests and capabilities to occupations in an attempt to implement their self-concept at work and in other life roles (Super, 1957). During the establishment stage, individuals are concerned with career advancement in their chosen occupation (Super, 1957). They are trying to establish a stable work environment with the potential for growth and the opportunity for promotions. In the maintenance stage, individuals focus on maintaining their self-concept and their present job status (Super, 1957). In this stage, they are faced with career choices, such as whether to remain in their chosen occupation and whether to continue working for their present company. During the disengagement stage, individuals are focused on planning for retirement and developing a self-image and a self-concept that are independent of and separate from work (Super, 1957).

Super (1990) termed the progression through these broad stages a "maxicycle". However, it is important to note that he viewed the ages of transitions between his stages

as flexible and believed that individuals may also recycle through the stages. Super (1990) referred to this process as minicycles and recycling through the stages can occur as a result of a planned or unplanned change. For example, individuals can expect to change jobs several times during their working life (Patton & Lokan, 2001), and thus can also expect to recycle through the stages several times (Super, 1990). This concept of recycling is a refinement of Super's earlier work on stages and enhances the theory's relevance to today's world (Patton & Lokan, 2001).

Within Super's (1957) theory, adolescence corresponds to the exploration stage. During the years of exploration, society expects young people to learn who and what they might become. Super noted that adolescents should be concerned with increasing awareness of both self and the world of work while experimenting with new roles (Super, 1975). The major tasks associated with the exploration stage are crystallization, specification, and implementation. Super (1975), however, viewed crystallization as the primary career development task of the adolescent period. Super (1957) defined crystallization as the process of increasing the specificity of one's attitudes, behaviors, and characteristics related to a career. Adolescents engaged in this first task of the exploration stage are on a search for a more complete sense of self. A quest that also develops the attitudes, beliefs and competencies needed to crystallize a vocational self-concept. Within Super's conceptualization of career development, it is the exploration stage that most closely relates to Erikson's model of personal identity development. During this same time frame of adolescence, Erikson believed an individual should seek to translate his or her vocational self-concept into a vocational identity, including "the tangible promise of a career" (Erikson, 1963, pp 261-262).

Research on Adolescent Identity and Career Development

Because exploration and commitment are common to both career development (as conceptualized by Super) and to identity formation (as conceptualized by Erikson and Marcia), research has hypothesized that the two processes are related (Blustein, Devenis, & Kidney, 1989; Grotevant & Cooper, 1988; Grotevant, Cooper, & Kramer, 1986). However, much of the research linking career development and identity formation has been conducted on college students (Blustein et al., 1989; Fannin, 1979; Savickas, 1985). These studies have demonstrated that successful resolution of the identity crisis is associated with higher levels of career development (Munley, 1977; Savickas, 1985) and with clearer vocational goals and abilities (Savickas, 1985). For instance, in a study of eighteen to twenty-one year-old college males Munley (1975) found that psychosocial development across Erikson's first six stages has a strong linear relationship with career planning and development. Similarly, Blustein and colleagues (1989) found that vocational exploration is positively associated with the moratorium and identity achieved statuses and negatively related to the identity diffusion status.

Fewer studies examining the relationships between identity and career development have been conducted with high school students. In one such study, Laskin and Palmo (1983) found that 11th graders most successful in resolving the identity crisis also exhibited significantly higher levels of career development. In addition, those students who were least successful in grappling with identity issues demonstrated significantly lower levels of career planning. In a second study, Wallace-Broscoius et al. (1994) found identity status to be a stronger predictor of clearer vocational goals than

one's self-concept. Thus those higher in identity exploration and commitment showed greater career forethought than those who simply felt positive about themselves.

A third study (Vondracek, Schulenberg, Skorikov, Gilespie, & Wahlheim, 1995) examined the relationship between Marcia's identity statuses and different types of career indecision among a group of 7th-12th graders. The students completed a measure of ego identity status and the Career Decision Scale. Findings demonstrated that membership in a specific identity status group was significantly related to the nature and amount of career indecision a student experienced. Responders in the achievement status had significantly lower career indecision scores than respondents in the other three identity status groups. In addition, students with a foreclosed status, who presumably have accepted the ideological position of their parents, were generally no different from other uncommitted identity status types in either the amount or type of career indecision they experienced.

More recently Skorikov and Vondracek (1998) examined age-related trends in general ideological identity status and identity in the domains of vocation, religion, lifestyle, and politics during early adolescence and relationships between adolescent vocational identity and identities in the other domains. They found a developmental progression existed in adolescent vocational identity characterized by an increase in the proportion of students classified as identity achieved and moratorium and a decrease in the proportion of students classified as identity diffused and foreclosed over time. Their findings suggested that statuses in the general ideological, religious, lifestyle, and political identity domains appear to be related to, but clearly lagged behind, identity status development in the domain of vocations.

Research on Identity and Career Development of Adolescent Athletes

Much of the research on career issues as they relate to athletes has focused on

retirement or the transition away from one's sports career (Taylor, Ogilvie, & Lavallee,

2006). For some athletes, disengagement from sport is neither stressful, nor a source of

severe adjustment difficulties (Perna, Ahlgren, & Zaichkowsky, 1999). However, for

many athletes the retirement experience has been found to provoke considerable distress

and requires extensive adaptation (Blinde & Stratta, 1992; Werthner & Orlick, 1986). A

recent examination of the retirement experiences of elite gymnasts indicated that

retirement from gymnastics engendered adjustment difficulties for six of the seven study

participants (Warriner & Lavallee, 2008). In addition, identity confusion emerged as a

major theme of their retirement experience, as the gymnasts had invested heavily in sport

during adolescence, the period most associated with the pursuit of an identity. This

finding on the role that identity confusion plays in the retirement process is common

within the sport psychology literature. A strong, exclusive athletic identity has been

identified as a risk factor for emotional disturbance upon termination of one's athletic

career (Baillie & Danish, 1992; Blinde & Greendorfer, 1985; Ogilvie & Howe, 1986;

Orlick, 1980; Pearson & Petitpas, 1990; Werthner & Orlick, 1986), and has also been

found to be inversely related to career planning and development among a group of

retired athletes (Lavallee, Gordon, & Grove, 1995)

Studies examining the role of identity variables and the career planning and

development of athletes prior to retirement have demonstrated inconsistent findings.

Brown and Hartley (1998) examined the interaction of athletic identity, level of school

competition and career development. Their findings indicated that career decision-

making was not significantly impacted by the level of athletic identity and no significant

effect was found for the interaction between athletic identity and level of school

competition. Similar results were demonstrated by Rivas-Quinones (2003) who

examined the link between identity foreclosure and career planning among student-

athletes. He found that student-athletes did not prematurely foreclose on career choices

and did not have less developed career plans than student-non-athletes. Student-athletes

were found, however, to be less open to exploring other alternatives once an initial career

choice had been made.

Career Maturity

One of the more meaningful constructs within career development research is

career maturity which emerged from Super's (1957) theory. Super's interest in the career

development process, and career maturity specifically, evolved from his 21-year-long

Career Pattern Study (Super, 1985). This landmark research began in the 1950s by

examining ninth grade males and focusing on their career maturity. These males were

studied again as seniors and then followed until they were around the age of 36. Early

on, Super (1985) found that only 10 percent of ninth graders and 20 percent of seniors

had decided on an occupation. Over time, these students' vocational preferences

continued to be unstable, uncertain and unrealistic. Two-thirds of 12th graders and an

even higher percentage of ninth graders had little or no confidence in their goals. Most

students knew little about the occupation they thought they might like to enter. In

addition, fewer than five percent of seniors studied had well-thought-out plans for

actually getting the training needed for their occupational aspiration, for pursuing

education, or for entering the occupation once they had completed training. Ultimately, one of the major conclusions of the study was that the vocational preferences of high school seniors were no more appropriate than those of students in the ninth grade (Super, 1985). These findings bolstered Super's understanding of the career maturity process in adolescents and led to continued alterations in his theory. In particular, Super (1975, 1980) gave added significance to the stages of exploration and establishment.

Through this on-going refinement of his theory, Super (1990) came to define career maturity as "…the individual's readiness to cope with the developmental tasks with which he or she is confronted because of his or her biological and social developments and because of society's expectations of people who have reached that stage of development" (Super, 1990, p. 213). In other words, vocational maturity can be described as accomplishing the five stages (and their multiple sub-tasks) 'on schedule,' that is, during the age range in which one would optimally do so. A vocationally mature adolescent, therefore, is one who has successfully cycled through the tasks of crystallization, specification, and implementation and is then ready to move on to the next stage (Super, 1990). Super believed that adolescents who possess relatively high levels of career maturity are likely to obtain successful and satisfying careers, because they display more awareness of the career decision-making process, often think about alternative careers, relate their present behavior to future goals, possess high levels of self reliance in making career decisions, are committed to making career choices, and are willing to acknowledge and concede to the demands of reality (Savickas, 1990).

Throughout the evolution of his understanding of career maturity, Super continued to be heavily influenced by developmental psychology and in particular the

work of Erikson (Patton & McMahon, 2006). Super, Savickas and Super (1996) updated the growth stage to comprise a period spanning ages 4 to 13 years, typified by four revised substages named concern (developing a future orientation), control (gaining mastery over one's life), conviction (believing in one's ability to achieve), and competence (acquiring proficient work habits and attitudes). These substages form the basis of career adaptability, which extends Super's (1974) structural model of career maturity and incorporates Erikson's (1959) developmental stages (Savickas, 2002). This updated model included the future orientation, autonomy, and self-esteem elements from Super's (1957) original model of child vocational development to transform it from a "structural model into a truly developmental one characterized by a sequence of tasks" (Super et al., 1996, p. 132).

Career maturity as formulated by Super is considered to be a particularly important variable to assess during adolescence because, at this life stage, individuals often have to make important career decisions that they are not developmentally ready to make (Swanson & D'Achiardi, 2004). It is thought that because of these shortcomings, many adolescents fail to integrate their interests, skills, and abilities, and are unable to focus toward a particular career goal, which is the main task of the exploration stage in Super's (1980) theory of career development. Due to the importance of this developmental process it is not surprising that over the past fifty years, career maturity has become one of the most widely researched aspects of the career development of adolescents (Powell & Luzzo, 1998). These studies have investigated a variety of demographic variables as they relate to career maturity. These variables include age, grade level, gender, socioeconomic status, ethnicity and grade point average. For

example, research has supported the theoretical notion that career maturity increases with chronological age (Healy, Mitchell, & Mourton, 1987; Healy, O'Shea, & Crook, 1985; Luzzo, 1993) and grade level (Herr & Enderlein, 1976; McCaffrey, Miller & Winston, 1984; Post-Kammer, 1987). These age-related results have been demonstrated cross-culturally with students in Israel (Fouad, 1988), Australia (Patton & Creed, 2001), Canada (Alvi & Khan, 1983), South Africa (Watson & Van Aarde, 1986) and Nigeria (Achebe, 1982).

Research on gender differences in levels of career maturity has been inconsistent. Several studies have indicated that females are attitudinally more career mature than males (Luzzo, 1995; Neely & Johnson, 1981; Putnam & Hanson, 1972; Westbrook, 1984). In contrast, other studies have suggested higher levels of career maturity among males (Achebe, 1982; Gupta, 1987). Additionally, another collection of studies found no significant differences in career maturity across genders (Fouad, 1988; Holland, 1981; Kelly & Colangelo, 1990; Laskin & Palmo, 1983; Super & Nevill, 1984; Watson, Stead & De Jager, 1995; Westbrook, Sanford & Donnelly, 1990).

Career Maturity and Athletes

Understanding career maturity as it relates to athletes is of particular importance to the current study. Of specific interest are the ways in which the concepts of identity foreclosure, athletic identity and career maturity may be interrelated in adolescent athletes. As previously indicated, athletes with a strong and exclusive commitment to the athlete role may have forgone the exploration of other possible roles, which are deemed critical for personal identity development and are likely in a state of identity foreclosure

(Marcia, 1993). According to Super (1957), a lack of adolescent exploratory behaviors and suboptimal identity formation would also impact vocational development. More specifically, individuals who have failed to consider or engage in other possible roles would be forced to make vocational decisions that are beyond their development capacity (Super, 1990). This deficiency in terms of vocational readiness can be better understood as a lack of career maturity.

One of the first studies examining levels of career maturity in athletes was conducted by Blann (1985). Blann discovered that male student-athletes at both Division I and Division III schools "did not formulate mature educational and career plans to as great an extent as did freshman and sophomore male nonathletes" (p. 117). Blann went on to conclude that athletic preoccupation on the part of the male student-athletes may result in inadequate attention being paid to educational and career plans. In a second study, Kennedy and Dimick (1987) examined football and basketball team members and a similar number of nonathletes at a Midwestern university. Using Crite's (1978) Career Maturity Inventory (CMI) to assess career maturity, the authors found no statistically significant differences. The group means, however, were consistently lower for the student athlete group and were comparable to that of ninth grade high school students. These findings suggest that athletes in revenue sports might have less mature career plans than college students in general.

Smallman and Sowa (1996) extended this research by using the Career Development Inventory (CDI; Super, Thompson, Lindeman, Jordaan, & Myers, 1981) to examine the career maturity levels of revenue and nonrevenue sport athletes. The results of this research revealed no statistically significant differences between revenue and

nonrevenue student athletes' career maturity. However, the results indicated that student athletes reported career maturity scores in the bottom 25th percentile when compared to the normative group of college students in general.

Davis-Hill (2001) examined 101 male college football and basketball players and 765 male non-athletes from a Division IA university in the Midwest. The participants were given the Career Maturity Inventory (Crites, 1995) and an author-generated demographic questionnaire which covered topics such as age, race, year in school, and career plans. The results indicated that the career maturity levels of athletes were not as developed as those of non-athletes in relation to the planning skills needed for effective career decision-making. However, both sets of scores were above the possible mean scores of the instrument, indicating that the athletes in this sample were less mature than the comparison group of non-athletes but not immature in terms of the overall possible mean scores. Lally and Kerr (2005) conducted retrospective in-depth interviews with four male and four female university student athletes. They found that participants entered college with vague or nonexistent career objectives and invested heavily in their athletic roles. In the latter years of their college career, however, the participants discarded their sport career ambitions and allowed the student role to become more prominent in their identity hierarchies. They suggested that this switchover may permit the exploration of nonsport career options.

Ihle-Helledy (2006) found no support for the hypothesis that college student-athletes when compared to the general student population lack career maturity and or are not career ready in a study of intercollegiate female basketball, soccer and basketball players and male baseball players. In another study of Division I college athletes, Heller

(2008) found a very weak positive correlation between role conflict and athletic identity, as well as role conflict and career-related distress. In the proposed model, 55% of the variance of career maturity was accounted for by role conflict, athletic identity, and career-related distress; however, career-related distress was the only variable that significantly predicted career maturity.

As previously indicated the relationship between ego identity status (identity foreclosure in particular), athletic identity and career maturity is central to the current study. However, a thorough review of the literature uncovered only three empirical studies (Murphy et al., 1996; Neyer, 1996; Whipple, 2009) that have examined this exact combination of variables (e.g., ego identity status, athletic identity and career maturity). Murphy et al. (1996) examined the relationship between self-identity variables (i.e., identity foreclosure and athletic identity) and career maturity among 124 intercollegiate athletes at an NCAA Division I university. They found that both identity foreclosure and athletic identity were inversely related to career maturity. In addition, the nonsignificant correlation between identity status and athletic identity suggests that although both were associated with inhibited career planning, failing to explore alternative roles and behaviors and identifying strongly and exclusively with the athlete role are separate processes.

In the second study, Neyer (1996) utilized survey and interview methods to compare elite athletes training at the United States Olympic Center with nonathletes in the areas of athletic identity, ego identity status and career maturity. The results indicated that no significant quantitative differences in career maturity as assessed by the Adult Career Concerns Inventory (ACCI) were found between elite athletes and nonathletes.

However, there was a significant difference in presence of athletic identity, as elite athletes had significantly higher scores, thus confirming that athletic identity is more central to elite athletes than to nonathletes. In addition, the qualitative data obtained in interviews revealed that most of the respondents in the elite athlete subsample had engaged in developmentally appropriate career-related activities. As a result, the author concluded that elite athletes were neither as developmentally delayed nor as distinct from nonathletes in regard to career maturity as she had hypothesized.

Whipple (2009) examined the strength of the relationship between level of identification with the role of athlete (athletic identity), identity foreclosure, and career maturity among 367 male and female NCAA Division III student-athletes. The findings indicated that athletic identity and identity foreclosure were both negatively related to career maturity. A stepwise regression analysis with career maturity as the dependent variable showed that public athletic identity entered first and explained 11% of the variance in career maturity. Private athletic identity was the only other significant association and added 1% more variance explained. A MANOVA found no significant main effect for gender, but did show a significant main effect for specific sport. The author pointed out that although the relationships found in the present study are in the same direction as shown with previous research among NCAA Division I student-athletes, the relationships among this sample of NCAA Division III student-athletes were much weaker

The findings of these studies indicate that the relationship between ego identity status, athletic identity and career maturity among athletes may be complex and is not well understood. In addition, a thorough review of the research literature has uncovered

no studies that have included an analysis of this combination of variables within a high school population. The present study attempts to address this substantial gap in the adolescent identity and career development research.

Significance of Current Research

A theoretical (Erikson, 1959; Jordaan, 1963; Super, 1957) and empirical (Blustein & Phillips, 1990) link has been established between identity development and career development. In addition, the high school years have long been recognized as an important time period within these fields as students engage in a range of exploratory behaviors and activities that impact who and what they will become (Erikson, 1963; Marcia, 1966; Super, 1957; 1985). It follows, therefore, that attempting to examine and understand the ways in which these activities contribute to adolescent development is an important undertaking.

One of the most popular and time-consuming organized activities in which adolescents participate is athletics (Eccles & Barber, 1999; Larson & Verma, 1999). Furthermore, there is support from existing research that participation in athletics can impact both the identity (Good et al., 1993; Petitpas, 1981) and vocational (Kennedy & Dimick, 1987; Lavallee et al., 1995) development processes in adolescents and young adults. However, given that all of the empirical studies examining the relations between identity and career development among athletes have focused on intercollegiate and elite level participants, rather than high school populations, evidence exists of a considerable gap in the research literature. The purpose of the current study, therefore, is to examine identity development, career development and athletic participation within a high school

population. More specifically the study will focus on patterns or relationships between the variables of ego identity status, athletic identity and career maturity among high school students. It is hoped that the findings of this research will help clarify the relationships between these variables, fill the recognized gap in the research literature and contribute to the overall understanding of the identity and career development process among adolescents. The current research also aligns with the renewed focus on examining the positive and negative developmental experiences associated with adolescent sport participation (Fraser-Thomas & Côté, 2009; Holt et al., 2008) and efforts to manage the athletic environment in order to facilitate more positive development (Danish, 2002; Papacharisis, Goudas, Danish, & Theodorakis, 2005).

Research Questions

    1. Are athletic identity, identity foreclosure and career maturity related among high school students?

    2. Do students with a strong athletic identity exhibit higher levels of identity foreclosed thinking?

    3. Does identity foreclosure mediate the relationship between athletic identity and career maturity?

    4. Are there differences in identity foreclosure, athletic identity, and career maturity as a function of participation in interscholastic athletics?

    5. Are there differences in identity foreclosure, athletic identity, and career maturity as a function of gender?

6. Are there differences in identity foreclosure, athletic identity, and career maturity as a function of grade level?

Hypotheses

1. Athletic identity and identity foreclosure will be negatively related to career maturity.

2. Athletic identity will be positively related to identity foreclosure.

3. Identity foreclosure will mediate the relationship between athletic identity and career maturity.

4. Significant differences will exist between athletes and non-athletes in the variables of interest. More specifically, athletes' levels of identity foreclosed thinking and athletic identity will be higher than individuals who do not participate in sports, and their levels of career maturity will be lower than non-athletes.

5. Significant differences will exist between males and females in athletic identity, whereby male students will have higher levels of athletic identity than will female students.

6. Upper-class students (11th and 12th graders) will have lower levels of athletic identity and identity foreclosure and higher levels of career maturity than lower-class students (9th and 10th graders).

CHAPTER III

METHODOLOGY

Participants

The sample for this study consisted of 275 male ($n = 141$) and female ($n = 134$)

students recruited from physical education courses at a public high school in the

Midwestern United States. Students who volunteered to participate were given course

credit for their participation. The participants ranged in age from 14 to 20 years old ($M =$

16.4 years, $SD = 1.2$). The students represented the 9th (13.5%), 10th (5.8%), 11th

(30.9%), and 12th (49.8%) grade academic classes. The ethnic makeup consisted of 209

Caucasians (76.0%), 23 African Americans (8.4%), 20 Hispanic Non-whites (7.3%), 11

Asians (4.0%), 4 American Indians (1.5%), and 8 Others (2.9%). The sample included

133 students (48.4%) who were active members of interscholastic athletic programs in

the sports of football ($n = 24$), basketball ($n = 17$), soccer ($n = 16$), volleyball ($n = 15$),

softball ($n = 14$), cross country ($n = 8$), baseball ($n = 6$), tennis ($n = 5$), golf ($n = 5$), track

($n = 4$), wrestling ($n = 4$), swimming ($n = 1$), and other sports ($n = 14$).

Measures

Demographic questionnaire. A brief demographic questionnaire was

administered to obtain important background information from participants. This

questionnaire included questions concerning participants' age, gender, ethnicity, year in

school, sport, level of sport participation (e.g., varsity, junior varsity, etc.) and years of participation in sport.

The Extended Objective Measure of Ego Identity Status (EOM-EIS-2; Bennion & Adams, 1986) was utilized to measure category of identity status among the participants. The EOM-EIS-2 is a revised version of the original Objective Measure of Ego Identity Scale developed by Adams, Shea, and Fitch (1979). This instrument has been tabbed the "most highly developed and validated group-administer questionnaire assessing identity status (Marcia, 1993, p. 17). The EOM-EIS-2 is a 64-item self-report questionnaire with responses measured on a 6-point Likert scale, ranging from (1) strongly disagree to (6) strongly agree. The instrument consists of eight content areas. Four of these areas are included within the ideological component (occupation, religion, political views, and lifestyle philosophy). The other four content areas comprise the interpersonal dimension which provides information concerning friendship, dating, sex role and recreation. Scores for the four identity statuses (achievement, moratorium, foreclosure, and diffusion) are generated by way of two-items reflecting these statuses within each of the eight content areas. This creates a score for each identity status in both the ideological and interpersonal dimensions. A global identity score can also be obtained for each individual. The present study will focus on an individual's score on the foreclosure scale.

The EOM-EIS-2 has been found to have adequate psychometric properties (Adams et al., 1979; 1989). Adams et al. (1989) reported internal consistency reliabilities ranging from .30 to .89 with a median of .66 based on twenty-four separate studies. Coefficient alphas for Diffusion, Moratorium, Foreclosure, and Achievement of .69, .66, .81, and .76 respectively have also been reported (Adams et al., 1989). Bennion and

Adams (1986) assessed the concurrent validity of the instrument by comparing the EOM-EIS-2 with six other accepted measures of identity status. The results of this research indicated moderate to high agreement in status classification. Adams et al. (1989) also reported that status classification agreement between the Marcia Identity Status Interview and the EOM-EIS-2 ranged from 73-80% across the four identity statuses.

The Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993). The AIMS is a psychometric instrument that aims to measure "athletic identity". Brewer et al. (1993) defined athletic identity as "the degree to which an individual identifies with the athlete role" (p. 237). The AIMS is a 10-item questionnaire where responses are made on a 7-point Likert scale that ranges from 1 (Strongly disagree) to 7 (Strongly agree). Scores on the AIMS range from 10 to 70, with higher scores indicative of a stronger identification with the athletic role.

The AIMS has been found to have acceptable reliability and validity. The test-retest reliability has been found to be .89 in studies examining adolescent swimmers with disabilities (Martin, Adams-Mushett, & Smith, 1995; Martin, 1999). The internal consistencies of the dimensions have been found to range from .51 to .93 in studies examining adolescent swimmers with disabilities (Martin et al., 1995; Martin, 1999), athletes with disabilities (Martin, Eklund, & Mushett, 1997), bodybuilders and weightlifters (Hurst et al., 2000) and marathon runners (Horton & Mack, 2000). The AIMS was found to be highly correlated with the Perceived Importance Profile, the Sport Competence Scale, and the Sport Orientation Questionnaire, giving the test concurrent validation (Brewer et al., 1993). Concurrent and construct validity were also illustrated via factor analysis among adolescent swimmers with disabilities (Martin et al., 1995).

The Attitude scale (Screening Form A-2) of the Career Maturity Inventory (CMI; Crites, 1978). The CMI-A2 is a 50-item self-report instrument designed to measure attitudes toward the career decision-making process. The Attitude Scale measures feelings, subjective reactions, and dispositions that an individual has toward making a career choice and entering the world of work. The Attitude scale creates an overall score (1-50) for career maturity attitudes. Higher scores represent more mature career decision-making attitudes and greater readiness to make career choices. Internal consistency reliabilities for the Attitude scale range from .72 to .90, with test-retest reliability of .71 over a 1-year interval (Crites, 1978). For Screening Form A-2, Alvi and Khan (1983) reported reliabilities of .56 to .69 across grades 9-12. The Attitude scale is generally considered an adequate valid measure of career decision-making attitudes (Savickas, 1990) despite some psychometric concerns reported in the literature (Westbrook, 1982).

Procedures

Approval was first obtained from the University of Houston Committees for the Protection of Human Subjects and from the participating school district's Office of Testing and Evaluation. The principal at the selected school was then contacted and asked to suggest teachers to aid in recruiting students to participate in the study. The principal investigator communicated with selected teachers to provide information about the study, as well as to issue them consent/assent forms and questionnaire packets for the students in their classes. At their convenience the teachers read a brief introduction to the study to their classes and distributed parental consent forms to interested students. The

verbal introduction and the parental consent forms included information about the nature of the study, its voluntary participation, purpose and procedures, confidentiality, possible risks and discomforts, and provided the researcher's contact information should students or parents have questions about the study. Signed parental consent forms were collected by the teachers and the students who returned these were then issued a minor assent to participate form. After choosing to sign the assent form, participating students were issued a questionnaire packet to complete at their convenience. The sequencing of the questionnaire packet included the demographics questionnaire, EOM-EIS, AIMS, and CMI-A2. It took approximately 40 minutes to complete the entire study. After they completed the survey instruments, the students returned the questionnaire packets to their teachers who placed them in a secure place until they were collected by the principal investigator.

CHAPTER IV

RESULTS

Data Analyses

To examine the first hypothesis, Pearson product moment correlations were

calculated to assess the relationships among athletic identity, identity foreclosure, and

career maturity. Analysis revealed that athletic identity was inversely related to career

maturity. However, this relationship was not significant ($r = -.07$, $p > .05$). As

hypothesized, a significant negative relationship was demonstrated between identity

foreclosure and career maturity ($r = -.33$, $p < .001$). These findings demonstrate partial

support for the initial hypothesis that the degree of athletic identity and the degree of

identity foreclosure would be significantly and inversely related to career maturity. A

significant positive correlation ($r = .16$, $p < .05$) was found between the degree of athletic

identity and the degree of identity foreclosure. This supports the second hypothesis that

athletic identity is positively related to identity foreclosure.

To examine the third hypothesis, multiple regression analysis was employed to

test the mediation effects of identity foreclosure, in explaining the relation between

athletic identity and career maturity in this study's sample. Barron and Kenny's (1986)

classic four-step regression method was used to test the hypothesis that identity

foreclosure mediates the relationship between athletic identity and career maturity.

Accordingly, four separate regression equations were performed. The first regression

equation (i.e., Step 1) required the predictor (athletic identity; AIMS total score) and

outcome variable (career maturity; CMI A-2 score) to be significantly related. The

second regression equation (i.e., Step 2) required the predictor (athletic identity) and

mediator variable (identity foreclosure; EOM-EIS-2 foreclosure score) to be significantly

related, and the third regression equation (i.e., Step 3) required the mediator (identity

foreclosure) and outcome variable (career maturity) to be significantly related. The fourth

regression equation (i.e., Step 4) was used to test whether the strength of the relationship

between the predictor (athletic identity) and outcome (career maturity) is significantly

reduced when the mediating variable (identity foreclosure) is added into the model, thus

indicating full mediation.

Results of the mediational analysis are summarized in Table 1. According to the

above analysis for hypothesis one, step one in testing the mediation model was not

confirmed R^2 = .005, $F(1, 273)$ = 1.35, p > .05.. Although this finding negates a possible

meditational effect according to Barron and Kenny (1986), the remaining analysis was

conducted for illustrative purposes. The second regression equation, examining the

relationship between athletic identity and identity foreclosure, was significant, R^2 = .02,

$F(1, 273)$ = 6.78, p < .05. The third regression equation, examining the relationship

between identity foreclosure and career maturity was also significant, R^2 = .11, $F(1, 273)$

= 34.15, p < .001. When identity foreclosure was accounted for in the full model, the

direct effect between athletic identity and career maturity remained non-significant (t = -

.32, p > .05). These findings indicate that identity foreclosure does not mediate the

relationship between athletic identity and career maturity and this hypothesis is not

confirmed.

Table 1

Mediation Analysis

	R^2	Adj. R^2	B	β	*t*
Step 1					
AIMS→CMI-A2	.005	.001	-.03	-.07	-1.16
Step 2					
AIMS →Foreclosure	.02*	.02	-.14*	.156	2.60*
Step 3					
Foreclosure→ CMI-A2	.33**	.11	-.14**	-.33	-5.84**
Step 4 (Full Model)					
AIMS→CMI-A2	.33	.11	-.007	-.02	-.32

AIMS = Athletic Identity, CMI-A2 = Career Maturity, Foreclosure = Identity
Foreclosure, Adj. R^2 = Adjusted R square

* = *p* <.05, ** = *p* < .001.

To assess the three remaining hypotheses, three separate exploratory MANOVAs were performed to examine the effects of participation in interscholastic athletics (athletes [n = 133] vs. non-athletes [n = 142]), gender (males [n = 141] vs. females [n = 134]), and grade level (9th and 10th grade students [n = 53] vs. 11th and 12 grade students [n = 222]) on identity foreclosure, athletic identity and career maturity scores. Descriptive statistics for these analyses are presented in Table 2. Significant multivariate effects were obtained for participation in interscholastic athletics, Wilks' lambda = 0.71, $F(3, 271) = 36.28$, $p < .001$, gender, Wilks' lambda = 0.91, $F(3, 271) = 8.53$, $p < .001$, and grade level Wilks' lambda = 0.94, $F(3, 271) = 6.10$, $p < .05$.

Univariate analyses demonstrated that as hypothesized, athletes (M = 43.29, SD = 12.81), had significantly higher athletic identity scores than non-athletes (M = 27.49, SD = 12.61), $F(1, 274) = 106.29$, $p < .001$. Similarly, athletes (M = 43.95, SD = 11.34), also had significantly higher identity foreclosure scores than non-athletes (M = 39.76, SD = 14.16), $F(1, 274) = 7.26$, $p < .010$. Athletes and non-athletes did not differ significantly on career maturity. These findings offer partial support for the fourth hypothesis as athletes demonstrated significantly higher levels of athletic identity and identity foreclosed thinking than those students who did not participate in interscholastic sports.

Gender's impact on athletic identity, identity foreclosure and career maturity was also examined by univariate analyses. As hypothesized, males had significantly higher athletic identity scores (M = 38.31, SD = 14.45), than females (M = 31.78, SD = 14.79), $F(1, 274) = 13.71$, $p < .001$. Males (M = 44.43, SD = 13.18), also scored significantly higher on identity foreclosure $F(1, 274) = 13.71$, $p < .001$ than females (M = 31.78, SD =

14.79). Females ($M = 30.67$, $SD = 4.99$), however, scored significantly higher on career maturity $F(1, 274) = 6.54$, $p < .05$, than males ($M = 28.99$, $SD = 5.88$).

Univariate analyses for grade level revealed that as hypothesized students in lower grade levels demonstrated significantly higher athletic identity scores, $F(1, 274) = 12.99$, $p < .001$, and identity foreclosure scores, $F(1, 274) = 7.03$, $p < .010$, than students in upper grade levels. There were no significant differences in career maturity between students in upper and lower grade levels. These findings offer partial support for the hypothesized impact of grade level on athletic identity, identity foreclosure and career maturity.

Table 2

Descriptive Statistics for Playing Status, Gender, and Grade Level on Athletic Identity, Identity Foreclosure, and Career Maturity

Comparison	Athletic Identity		Identity Foreclosure		Career Maturity	
	M	*SD*	*M*	*SD*	*M*	*SD*
Playing status						
Athlete	43.29	12.81	43.95	11.34	29.46	5.44
Non-athlete	27.49	12.61	39.76	14.16	30.13	5.60
Gender						
Male	38.31	14.45	44.43	13.17	28.99	5.88
Female	31.78	14.79	39.00	12.30	30.67	5.00
Grade level						
Upper	33.58	14.61	40.78	12.93	29.86	5.51
Lower	41.64	14.72	46.00	12.66	29.60	5.61

CHAPTER V

DISCUSSION

The study's first hypothesis focused on the relation between the identity development variables of athletic identity and identity foreclosure and the vocational variable of career maturity. Based on previous research (Blann, 1985; Davis-Hill, 2001; Kennedy & Dimick, 1987), it had been hypothesized that a strong identification with the athlete role and the demands of interscholastic athletics would render students ill-prepared for career and life-choices outside of the athletic realm. The results from this study, however, failed to demonstrate a significant relationship between athletic identity and career maturity. This data was consistent with earlier research which also established the absence of a significant relation between athletic identity and career development (Brown & Hartley, 1998; Brown et al., 2000; Heller, 2008; Kornspan & Etzel, 2001; Martens & Cox, 2000).

A potential explanation for this finding is that it is possible that few of the students in this study expected to advance in their sport careers beyond high school and into college and the professional ranks. As a result, their athletic identity may not reflect exclusivity, but rather that their athletic and student role identities are perhaps equally salient. In other words, it may be possible for a student-athlete to express high athletic identity while also possessing a strong commitment to his or her student role identity (Brown et al., 2000). This would likely allow for the exploration of other life and career domains and avoid the suggestion that student-athletes with strong and exclusive

commitments to their athlete role may view career planning as a threat to their athletic identity and the dream of becoming a professional athlete (Blann, 1985; Kennedy & Dimick, 1987). There is at least limited support for this notion within the research literature (Lally & Kerr, 2005). Unfortunately, information about the future career plans of students within the current study was not obtained, making these inferences difficult to assess.

Results from the current study indicated that as hypothesized, identity foreclosure was significantly and negatively related to career maturity. Students who demonstrated higher levels of identity foreclosed thinking exhibited less mature vocational plans. This finding is consistent with findings of previous research among both general student populations (Blustein & Phillips, 1990), and with athletes (Brown et al., 2000; Murphy et al., 1996; Whipple, 2009). It also offers support for the theoretical link between these variables and illustrates the importance of exploratory behavior for career development (Jordaan, 1963; Super, 1957). Individuals with an identity foreclosed status typically adopt the attitudes of their parents and seek out solutions to decision making tasks without deliberation and exploration (Marcia, 1980; Waterman, 1985). Foreclosed high school students are likely to rely strongly on their parents for making decisions about identity concerns and career choice without getting involved in the career decision-making process on their own. Thus, by failing to engage in the necessary exploratory behaviors, and by deferring responsibility for important decisions (e.g., career choices) to others, identity foreclosed students in the study can be said to be vocationally immature (Blustein & Phillips, 1990).

The second hypothesis that athletic identity would be positively related to identity foreclosure was supported. The results indicated that students with a strong identification with the athlete role displayed higher levels of identity foreclosed thinking. While research had suggested that the relationship between athletic identity and identity foreclosure may have been overestimated within the literature (Brown et al. 2000; Murphy et al., 1996; Perna et al., 1996), these findings lend support to the notion that a strong and exclusive commitment to the athlete role may limit exploration and appropriate identity development. The significant relation between athletic identity and identity foreclosure had previously been demonstrated among college athletes (Good et al., 1993). The current study, however, may be the first to display this empirical link within a high school population. These findings could indicate that the "role engulfment" presumed to be associated with sports participation (Adler & Adler, 1991) may occur earlier than previously expected. In addition, it is possible that the physical and psychological variables previously linked to college athletics, including pressure from coaches and teammates, the belief that a narrow focus on sport is necessary to excel, and restrictiveness of the athletic environment, may be trickling down to high school athletics. Further research examining the psychological, social and environmental correlates of high school athletic participation could clarify this development.

The results failed to support the study's third hypothesis, as there was no evidence of a mediation effect of identity foreclosure on the relationship between athletic identity and career maturity. Interestingly, previous research that had examined a moderation relationship between identity development variables and career development among athletes also failed to demonstrate this type of association (Finch, 2007). These findings

suggest a great deal of complexity among identity variables and their influence on career behaviors. In addition, despite several decades of research, it appears that these relationships remain not well understood. Future research is warranted to uncover additional contributing factors.

It is also important to note that while the analyses utilized in the current study found no evidence of a mediation effect, it still may be possible for athletic identity to have had a significant *indirect* effect on career maturity, with the effect occurring through identity foreclosure (Hayes, 2009). Indirect effects are a special form of intervening effect whereby two variables are not related directly (i.e., are not correlated), but they are indirectly related through significant relationships with a linking mechanism (Mathieu & Taylor, 2006). The current study used Baron and Kenny's (1986) causal steps approach, as this is the most widely applied method for testing mediation hypotheses (Preacher & Hayes, 2004). According to this approach, when the first step failed to find a significant total effect of athletic identity on career maturity, it was concluded that a mediation effect was not present. The assumption that a total effect is present initially, however, is not necessary in the assessment of indirect effects and it is quite possible to find that an indirect effect is significant even when there is no evidence of a significant total effect (Hayes, 2009, MacKinnon, Krull & Lockwood, 2000; Mathieu & Taylor, 2006; Preacher & Hayes, 2004; Zhao, Lynch Jr., & Chen, 2009). An examination of indirect effects requires a move away from Barron and Kenny's model and toward methods such as the Sobel (1982) test or more sophisticated approaches employing bootstrapping techniques (MacKinnon et al., 2000; Preacher & Hayes, 2004; Shrout & Bolger, 2002). However, Mathieu and Taylor (2006) suggests that the testing of significant indirect effects should

occur only when researchers actually hypothesized a non-significant total effect *a priori*, rather than waiving this precondition when it fails to materialize in one's data, as was the case with the current study. Therefore, this analysis was not undertaken.

The study's fourth hypothesis concerned differences between athletes and non-athletes among the variables of interest. The results offered partial support for the hypothesized relationships between athletic identity, identity foreclosure and career maturity. As hypothesized, athletes demonstrated significantly higher levels of athletic identity and identity foreclosure than those students who did not participate in interscholastic sports. This makes intuitive and theoretical sense and also supports earlier research (Houle, Brewer, & Kluck, 2010). The findings for identity foreclosure are also in-line with earlier studies indicating that athletes exhibit greater identity foreclosed thinking their non-athletic counterparts (Brown et al., 2000; Good et al., 1993; Linnemeyer & Brown, 2010; Nelson, 1983; Petitpas & Champagne, 1988). This suggests that the physical and psychological demands of athletics coupled with the restrictiveness of the sport domain, may isolate athletes from mainstream academic and developmental pursuits, restrict their opportunities for exploratory behavior, and promote identity foreclosure (Chartrand & Lent, 1987; Nelson, 1983; Petitpas & Champagne, 1988). Although it was hypothesized that athletes would exhibit lower levels of career maturity than those students who did not participate in athletics, the results revealed that there were no significant differences in career maturity for athletes and non-athletes. This finding supports previous research (Ihle-Hellledy, 2006; Neyer, 1996), and indicates that athletes may be less distinct from non-athletes in terms of their vocational maturity than had previously been assumed.

Gender differences in athletic identity were the focus of the study's fifth hypothesis. As hypothesized, males demonstrated significantly higher levels of athletic identity than females. This finding lends additional support to a growing body of literature demonstrating similar results (Brewer et al. 1993; Krylowicz, 2000; Murphy et al., 1996; Nasco & Webb, 2006; Van Raalte, Brewer & Schmelzer, 1997). Despite not being hypothesized directly, significant gender differences were also found for identity foreclosure and career maturity. Males in the current study exhibited significantly higher levels of identity foreclosed thinking than their female counterparts. Although gender differences among the ego identity statuses have been less pronounced, at least one previous empirical study found similar results (Lewis, 2003).

Females in the study's sample scored significantly higher on career maturity than males. This supports additional research indicating that females were more attitudinally more mature than males (Luzzo, 1995; Neely & Johnson, 1981; Putnam & Hanson, 1972; Westbrook, 1984). This has also previously been found among student athletes (Murphy et al., 1996). The authors of that study suggested that the finding offers support for Josselson's (1987) belief that foreclosure is a more adaptive status for women than for men. Josselson's longitudinal research on female adolescents indicated that many foreclosed females experienced a surprising level of fulfillment later in life because of the rewards they found in carrying on family rules and traditions. Higher career maturity scores among female students may also reflect the fact that there are still fewer professional sport opportunities for women. While female students frequently participate in sports at both the high school and college levels, the perceived lack of professional

opportunities may prevent "role engulfment," and encourage the completion of developmentally appropriate career-related tasks (Murphy et al., 1996).

The study's sixth hypothesis examined differences in athletic identity, identity foreclosure and career maturity as a function of grade level. As hypothesized, students in lower grades demonstrated higher levels of athletic identity and identity foreclosure than students in higher grades. This supports previous research (Blackburn, 2004; Brewer et al., 1993) and suggests that as students mature and become exposed to a variety of activities and influences, their exclusive identification with the athlete role decreases and their exploration of other roles and identities increases (Brewer et al., 1993; Greendorfer & Blinde, 1985; Miller & Kerr, 2003). There were no significant differences found in career maturity between grade levels. This finding appears to be unusual, as research has consistently supported the theoretical notion that career maturity increases with both chronological age and grade level (Healy, Mitchell, & Mourton, 1987; Healy, O'Shea, & Crook, 1985; Herr & Enderlein, 1976; Luzzo, 1993; McCaffrey, Miller & Winston, 1984; Post-Kammer, 1987). However, at least one previous empirical study examining career maturity among high school students also demonstrated the lack of developmental differences in career maturity (Powell & Luzzo, 1998). One possible explanation for this finding is that students within this sample might be uniformly exposed to career decision making activities at all levels of high school. As a result, hypothesized developmental changes in career maturity would be minimized. However, because little is known about the educational and career development opportunities afforded students in the sample, this was difficult to determine. It is also possible that increases in career maturity are not necessarily the result of a linear, steadily progressing process, or that other contextual

factors may be more influential in career development than demographic characteristics such as age or class standing.

Limitations

A few limitations of this study should be noted. First, the sample was rather homogenous in terms of geographic location, school, and ethnicity. In addition, all of the students were recruited from physical education courses. It is possible that different school or sport contexts may generate different findings. Previous research has found significant differences in identity and career development across revenue and non-revenue sports (Kennedy & Dimick, 1987), and between NCAA Division I and Division III athletes (Whipple, 2009). In addition, the current research may not generalize to students from other geographic locations, schools, or from more diverse backgrounds. The unequal distribution of participants across genders, grade levels, and sport may also limit the generalizability of the results. Moreover, the complete reliance on paper-and-pencil assessments may restrict a comprehensive understanding of the multidimensional and complex aspects of the career- and identity-development processes. Qualitative research may more directly address this weakness. In addition, research examining of the role of family influence and expectation variables may help to further understanding of the relation between identity and career development variables. Finally, this study provided correlational data regarding the variables of interest, and thus no causal inferences should be formulated

Implications and Future Research

The findings of this study offer a glimpse into the relationships between athletic identity, identity foreclosure and career maturity within a high school sample. Because no previous studies examining these variables among such a population were found within the literature, this initial research may have some important implications. First, the positive relationship between athletic identity and identity foreclosure, and the finding that athletes displayed higher levels of foreclosure, indicate that there are likely features of the athletic environment even at the high school level that promote both a strong commitment to the athlete role and a lack of exploratory behaviors.

The negative features of such identity foreclosed thinking are well established and include lower levels of moral reasoning and ego development, a reliance on an external locus of control, less complex cognitive styles and information processing strategies, and more stereotypic forms of intimacy (Kroger, 2004). Therefore, it is crucial that the impact of adolescent athletic participation on identity development is addressed by parents, coaches, and administrators. Specifically, it behooves these stakeholders to not only determine which features precipitate the identity foreclosed thinking, but also how to encourage the development of a more mature identity status among high school athletic participants. As a result, it is important to better understand and to continue to build on the work of researchers who are already examining the processes by which development occurs in adolescent sport settings and attempting to create athletic environments that have the potential to transmit important life skills and play a crucial role in the overall development of adolescents (Dworkin et al., 2003; Fraser-Thomas &

Côté, 2009; Fraser-Thomas et al., 2005; Hansen & Larson, 2005, 2007; Hansen et al., 2003; Holt et al., 2008; Petitpas et al., 2005)

The most intriguing, if not disturbing discovery within the current study was the uniformly low career maturity scores exhibited by the students in the sample. 76.4% of the students in all grades (n = 210) scored below the reported mean for 12th grade students on the CMI-A2 (Crites, 1978). Similarly, only 36% of the students in all grades (n = 99) scored above the reported mean for ninth grade students on the CMI-A2. This was an unexpected finding concerning the readiness of the students in the sample to make developmentally-appropriate career decisions. Although difficult to determine from the current study's focus, it is possible that students in this particular district do not participate in effective career development programs in elementary, junior high and high school. If true, it would follow that students would not possess the appropriate attitudes and skills associated with the career decision making progress (Powell & Luzzo, 1998). Moreover, the career development of the students in this sample may be influenced by additional factors such as perceived occupational opportunities, barriers to educational success, or exposure to occupational alternatives that were not under study in the current research. Ultimately these low career maturity scores also influenced the relationships between the variables of interest, as well as the ability to generalize the findings to other populations. For instance, it becomes difficult to make solid inferences concerning the absence of significant differences between athletes and non-athletes in their level of vocational maturity, when both groups scored substantially below the published means for the utilized measure.

Guided by the findings of this study, future research could examine the possible indirect effect of identity foreclosure on the relationship between athletic identity and career maturity. By hypothesizing the absence of a total effect between athletic and career maturity, researchers could specify, *a priori*, the type of intervening process they anticipate and utilize Sobel or bootstrapping techniques to examine the indirect relationships. The use of more sophisticated bootstrapping methods would also allow for multiple mediators (Preacher and Hayes, 2004) which may better illuminate the relationships between identity and career development variables within a high school population.

Future research using longitudinal designs and more representative samples could also help to clarify the developmental processes by which students become delayed in acquiring career decision making skills and to identify the demographic and sport-related factors (e.g., revenue vs. nonrevenue, elite vs. recreational, team vs. individual) that moderate identity and career development in student-athletes. Longitudinal research would allow for an examination of the actual career decisions made by individuals post-high school and/or following the termination of their athletic careers. This should help illuminate the long-term influence of sport-related, environmental, demographic and identity variables that impact career decision making.

An examination of the interaction between athletes' student and athletic role identities and other participant features such as future career goals or expectations and the expected probability of becoming a college or professional athlete could also lead to a better understanding of the construct of athletic identity. Information about future career goals and expectations may help pinpoint the timeline by which different roles become

more salient as student-athletes progress through high school and college. Similarly, as research in the area of student-athlete development continues, an investigation of role commitment as an influential construct in understanding the athletes' identification with the sports role may also be warranted. Commitment as used to explain one's desire and resolve to continue in a particular line of activity may help researchers to understand student-athlete career development, as well as athletes' adjustment following career interruption due to failing to progress to the next level, injury or retirement (Brown & Hartley, 1998).

Future research should also consider the value of cross-cultural studies involving high school athletes. There is currently little cross-cultural research of identity (Hale et al., 1999). The existing contradictory research with U.S. (Adler & Adler, 1991), U.K. (Sparkes, 1998), and Canadian (Miller & Kerr, 2003) populations of student athletes suggests additional cross-cultural studies would be warranted. Cross-cultural research may provide valuable information on the contextual and relational variables that promote and discourage identity foreclosure among adolescents.

This study represents an important research endeavor by examining the relationships between athletic identity, identity foreclosure and career maturity. It appears to be one of the first explorations of these variables among high school students, and as such makes meaningful contributions to the existing literature. The findings suggest that identity foreclosure, "role engulfment" and other features of the sport environment which had previously been thought to be exclusive to college and elite level athletics, may also exist at the high school level. In addition, the study demonstrated that committing to a career path without deliberation and failing to engage in the necessary

exploratory behaviors was associated with less mature vocational plans. While the study demonstrated no evidence of a mediation effect of identity foreclosure on the relationship between athletic identity and career maturity, the overall findings should help clarify the links between these variables and offer a strong basis from which future research may progress.

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APPENDIX A

UNIVERSITY OF HOUSTON COMMITTEE FOR THE PROTECTION

OF HUMAN SUBJECTS APPROVAL FORM

UH U N I V E R S I T Y *of* H O U S T O N

COMMITTEES FOR THE PROTECTION OF HUMAN SUBJECTS

February 18, 2011

Jeffrey Adams
c/o Dr. John P. Gaa
Educational Psychology

Dear Adams:

The University of Houston Committee for the Protection of Human Subjects (1) reviewed your research proposal entitled "Athletic Identity and Ego Identity Status as Predictors of Career Maturity among High School Students" on February 18, 2011, according to institutional guidelines.

The Committee has given your project unconditional approval; however, reapplication will be required:

    1. Annually
    2. Prior to any change in the approved protocol
    3. Upon development of unexpected problems or unusual complications

Thus, if you will still be collecting data under this project on **March 1, 2012**, you must reapply to this Committee for approval before this date if you wish to prevent an interruption of your data collection procedures.

If you have any questions, please contact Alicia Vargas at (713) 743-9215.

Sincerely yours,

Dr. Scott Stevenson, Chair
Committee for the Protection of Human Subjects (1)

PLEASE NOTE: (1) All subjects must receive a copy of the informed consent document. If you are using a consent document that requires subject signatures, remember that signed copies must be retained for a minimum of 3 years, or 5 years for externally supported projects. Signed consents from student projects will be retained by the faculty sponsor. Faculty are responsible for retaining signed consents for their own projects; however, if the faculty leaves the university, access must be possible for UH in the event of an agency audit. (2) Research investigators will promptly report to the IRB any injuries or other unanticipated problems involving risks to subjects and others.

Protocol Number: 09212-01   Full Review __X__   Expedited Review _____

Learning. Leading.™   316 E Cullen Building   ·   Houston, TX 77204-2015   ·   713/743-9204   ·   Fax: 713/743-9227

APPENDIX B

LINCOLN PUBLIC SCHOOLS APPROVAL LETTER

Lincoln Public Schools

5901 O Street • Box 82889 • Lincoln, NE 68501 • (402) 436-1790
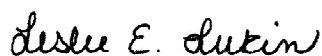
RR 09-54
March 17, 2009

Jeffrey C. Adams
University of Houston
1908 W. Dallas St. #1
Houston, TX 77019

RE: Request to Conduct Research in the Lincoln Public Schools

Dear Mr. Adams :

Your request to conduct a study entitled "Athletic Identify and Ego Identity Status
as Predictors of Career Maturity Among High School Students" with selected
Lincoln Public Schools high school students is approved. Once you have
identified which Lincoln Public School buildings you wish to work with please
notify this office so that we may notify principals of approval. Also, please
contact the principal of each building to secure their permission to proceed with
the implementation of this study. Parental/Guardian consent and student assent
are required for this study.

Sincerely,

Leslie E. Lukin

Leslie E. Lukin, Ph.D.
Director of Assessment and Evaluation Services

cc: John Neal, Director of Secondary Education

Title of Research: Athletic Identify and Ego Identity Status as Predictors of
                      Career Maturity Among High School Students

APPENDIX C

PARENTAL CONSENT FORM

The University of Houston

PARENTAL CONSENT FOR A CHILD'S PARTICIPATION IN A RESEARCH PROJECT

PROJECT TITLE: Athletic Identity and Ego Identity Status as Predictors of Career Maturity Among High School Students

Your son or daughter is being invited to participate in a research project conducted by Jeffrey Adams from the Educational Psychology department at the University of Houston. This project is part of a dissertation, in partial fulfillment of the requirements for the degree of Doctor of Philosophy. This research is being conducted under the supervision of Dr. Jonathan Schwartz and Dr. John Gaa from the Educational Psychology Department at the University of Houston.

NON-PARTICIPATION STATEMENT

Your son or daughter's participation is voluntary and you or your son or daughter may refuse to participate or withdraw at any time without penalty or loss of benefits to which your son or daughter is otherwise entitled. Your son or daughter may also refuse to answer any questions. As a student your son or daughter's decision to participate or not, or the withdrawal of your approval to participate will have no effect on his or her standing.

PURPOSE OF THE STUDY

The purpose of this research project is to examine students' athletic identity, ego-identity status, and career maturity. The aim of the research is to add to the body of literature examining the variables that influence the identity and career development of high school students

PROCEDURES

Your son or daughter will be one of approximately 800 students who will be asked to participate in this project. Students will be asked to complete a questionnaire packet containing four questionnaires. The four questionnaires will ask about demographic information (i.e., age, grade, gender, etc.), athletic identity, ego identity status and career maturity. Your son or daughter's teacher will not see his/her answers on the questionnaires and no names will appear on any information gathered or on the testing packet itself. Your son or daughter's participation will entail approximately 60 minutes. Upon completion, questionnaires will be collected by the investigator.

ANONYMITY

Your son or daughter's responses and all information gathered will be completely anonymous. No names or identifying information will be collected within this research.

RISKS/DISCOMFORTS

It is not anticipated that there are any risks involved in participating in this project.

BENEFITS

While your son or daughter will not directly benefit from participation in this project, his/her participation may help us to better understand career maturity as it relates to aspects of identity. Such information can contribute to the development of more effective counselors, teachers, and educators in the field of educational psychology.

ALTERNATIVES

Your son or daughter's participation in this project is voluntary and the only alternative to this project is non-participation.

PUBLICATION STATEMENT

The results of this study may be published in professional and/or scientific journals. It may also be used for educational purposes or for professional presentations. However, no individual subject will be identified.

Questions:

IF YOU HAVE ANY QUESTIONS CONCERNING THIS PROJECT, YOU MAY CONTACT JEFFREY ADAMS AT (713-443-5141), DR. JOHN GAA (713-743-9819) OR DR. JONATHAN SCHWARTZ (713-743-8390) FROM THE EDUCATIONAL PSYCHOLOGY DEPARTMENT OF THE UNIVERSITY OF HOUSTON.

ANY QUESTIONS REGARDING YOUR CHILD'S RIGHTS AS A RESEARCH SUBJECT MAY BE ADDRESSED TO THE UNIVERSITY OF HOUSTON COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (713-443-9204). ALL RESEARCH PROJECTS THAT ARE CARRIED OUT BY INVESTIGATORS AT THE UNIVERSITY OF HOUSTON ARE GOVERNED BY REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT.

PLEASE INDICATE BELOW WHETHER YOU GIVE PERMISSION FOR YOUR CHILD TO PARTICIPATE IN THIS PROJECT AND HAVE YOUR SON OR DAUGHTER RETURN THIS FORM TO THEIR TEACHER AS SOON AS POSSIBLE.

_____ Yes, I give my permission for my child to participate in this project.

_____ No, I do not give my permission for my child to participate in this project.

NAME OF YOUR SON OR DAUGHTER: _____

PARENT SIGNATURE: _____

PLEASE PRINT YOUR NAME: _____

APPENDIX D

MINOR ASSENT TO PARTICIPATE

The University of Houston

ASSENT TO PARTICIPATE IN RESEARCH

PROJECT TITLE: Athletic Identity and Ego Identity Status as Predictors of Career Maturity Among High School Students

You are being invited to participate in a research project conducted by Jeffrey Adams from the Educational Psychology department at the University of Houston. This project is part of a dissertation, in partial fulfillment of the requirements for the degree of Doctor of Philosophy. This research is being conducted under the supervision of Dr. Jonathan Schwartz and Dr. John Gaa from the Educational Psychology Department at the University of Houston.

NON-PARTICIPATION STATEMENT

Your participation in this project is entirely voluntary and you may refuse to participate or withdraw at any time without penalty or loss of benefits to which you are otherwise entitled. You may also refuse to answer any questions. In addition, your decision to participate or not, or to withdraw your participation will have no effect on your standing at school. You are being asked to read the consent form carefully and will be given a copy of it to keep if you decide to participate in this study.

PURPOSE OF THE STUDY

The purpose of this research project is to examine students' athletic identity, ego-identity status, and career maturity. The aim of the research is to add to the body of literature examining the variables that influence the identity and career development of high school students.

PROCEDURES

You will be one of approximately 800 students who will be asked to participate in this project. You will be asked to complete a questionnaire packet containing four questionnaires. The four questionnaires will ask about demographic information (i.e., age, grade, gender, etc.), athletic identity, ego identity status and career maturity. Your teacher will not see your answers on the questionnaires and your name will not appear on any information gathered or on the testing packet itself. Your participation will entail approximately 60 minutes. Upon completion, questionnaires will be collected by the investigator.

ANONYMITY

Your responses and all information gathered will be completely anonymous. No names or identifying information will be collected within this research.

RISKS/DISCOMFORTS

It is not anticipated that there are any risks involved in participating in this project.

BENEFITS

While you will not directly benefit from participation in this project, your participation may help us to better understand career maturity as it relates to aspects of identity. Such information can contribute to the development of more effective counselors, teachers, and educators in the field of educational psychology.

ALTERNATIVES

Participation in this project is voluntary and the only alternative to this project is non-participation.

PUBLICATION STATEMENT

The results of this study may be published in professional and/or scientific journals. It may also be used for educational purposes or for professional presentations. However, no individual subject will be identified.

Questions:

IF YOU HAVE ANY QUESTIONS CONCERNING THIS PROJECT, YOU MAY CONTACT JEFFREY ADAMS AT (713-443-5141), DR. JOHN GAA (713-743-9819) OR DR. JONATHAN SCHWARTZ (713-743-8390) FROM THE EDUCATIONAL PSYCHOLOGY DEPARTMENT OF THE UNIVERSITY OF HOUSTON.

ANY QUESTIONS REGARDING YOUR RIGHTS AS A RESEARCH SUBJECT MAY BE ADDRESSED TO THE UNIVERSITY OF HOUSTON COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (713-443-9204). ALL RESEARCH PROJECTS THAT ARE CARRIED OUT BY INVESTIGATORS AT THE UNIVERSITY OF HOUSTON ARE GOVERNED BY REQUIREMENTS OF THE UNIVERSITY AND THE FEDERAL GOVERNMENT.

I HAVE READ (OR HAVE HAD READ TO ME) THE CONTENTS OF THIS CONSENT FORM AND HAVE BEEN ENCOURAGED TO ASK QUESTIONS. I HAVE RECEIVED ANSWERS TO MY QUESTIONS. I GIVE MY CONSENT TO PARTICIPATE IN THIS STUDY. I HAVE RECEIVED (OR WILL RECEIVE) A COPY OF THIS FORM FOR MY RECORDS AND FUTURE REFERENCE.

Study Subject (print name): _____

Signature of Study Subject: _____

Date: _____

I HAVE READ THIS FORM TO THE SUBJECT AND/OR THE SUBJECT HAS READ THIS FORM. AN EXPLANATION OF THE RESEARCH WAS GIVEN AND QUESTIONS FROM THE SUBJECT WERE SOLICITED AND ANSWERED TO THE SUBJECT'S SATISFACTION. IN MY JUDGEMENT THE SUBJECT HAS DEMONSTRATED COMPREHENSION OF THE INFORMATION

Principal Investigator (print name and title):_____

Signature of Principal Investigator: _____

Date: _____

APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

Please complete the following:

AGE: _____   MALE: _____   FEMALE: _____

GRADE LEVEL: _____ Freshman   _____ Sophomore
                  _____ Junior   _____ Senior

HAVE YOU PARTICIPATED IN ANY SCHOOL-RELATED SPORTS DURING THE
PAST YEAR?   YES _____   NO _____

IF YES, CIRCLE WHICH SPORT ARE YOU MOST INVOLVED?
Please circle only one sport or fill in "other."

Football	Basketball	Baseball	Softball	Soccer
Volleyball	Tennis	Golf	Track	Cross-Country
Wrestling	Swimming	Other: _____

AT WHAT LEVEL DID YOU PARTICIPATE IN THIS SPORT?
_____ Freshman   _____ Reserve   _____ Junior Varsity
_____ Varsity

HAVE YOU PARTICIPATED IN ANY COMPETITIVE SPORTS OUTSIDE OF THE
SCHOOL SETTING DURING THE PAST YEAR?
YES _____   NO _____

PLEASE CIRCLE ONE OF THE FOLLOWING THAT BEST DESCRIBES YOUR
ETHNIC BACKGROUND

Unknown	Caucasian	Hispanic	African-American
Asian	Alaskan Native	American Native	Other

APPENDIX F

ATHLETIC IDENTITY MEASUREMENT SCALE (AIMS)

Athletic Identity Measurement Scale

Please circle the number that best reflects the extent to which you agree or disagree with each statement in relation to your own sports participation.

1. I consider myself an athlete.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

2. I have many goals related to sport.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

3. Most of my friends are athletes.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

4. Sport is the most important part of my life.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

5. I spend more time thinking about sport than anything.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

6. I need to participate in sport to feel good about myself.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

7. Other people see me mainly as an athlete.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

8. I feel bad about myself when I do poorly in sport.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

9. Sport is the only important thing in my life.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

10. I would be very depressed if I were injured and could not compete in sport.

1	2	3	4	5	6	7
Strongly Disagree						Strongly Agree

APPENDIX G

THE EXTENDED OBJECTIVE MEASURE OF

EGO IDENTITY STATUS (EOM-EIS-2)

EOM-EIS-2 (Revision)

Read each item and indicate to what degree it reflects your own thoughts and feelings. If a statement has more than one part, please indicate your reaction to the statement as a whole. Indicate your answer by writing the number of your choice in the space provided.

1 = **Strongly disagree**
2 = **Moderately disagree**
3 = **Disagree**
4 = **Agree**
5 = **Moderately agree**
6 = **Strongly agree**

_____ 1. I haven't chosen the occupation I really want to get into, and I'm just working at what is available until something better comes along.

_____ 2. When it comes to religion I just haven't found anything that appeals and I don't really feel the need to look.

_____ 3. My ideas about men's and women's roles are identical to my parents'. What has worked for them will obviously work for me.

_____ 4. There's no single "life style" which appeals to me more than another.

_____ 5. There are a lot of different kinds of people. I'm still exploring the many possibilities to find the right kind of friends for me.

_____ 6. I sometimes join in recreational activities when asked, but I rarely try anything on my own.

_____ 7. I haven't really thought about a "dating style." I'm not too concerned whether I date or not.

_____ 8. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.

_____ 9. I'm still trying to decide how capable I am as a person and what work will be right for me.

_____ 10. I don't give religion much thought and it doesn't bother me one way or the other.

_____ 11. There's so many ways to divide responsibilities in marriage, I'm trying to decide what will work for me.

_____ 12. I'm looking for an acceptable perspective for my own "life style", but haven't really found it yet.

_____ 13. There are many reasons for friendship, but I choose my close friends on the basis of certain values and similarities that I've personally decided on.

_____ 14. While I don't have one recreational activity I'm really committed to, I'm experiencing numerous leisure outlets to identify one I can truly enjoy.

_____ 15. Based on past experiences, I've chosen the type of dating relationship I want now.

_____ 16. I haven't really considered politics. It just doesn't excite me much.

_____ 17. I might have thought about a lot of different jobs, but there's never really been any question since my parents said what they wanted.

_____ 18. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.

_____ 19. I've never really seriously considered men's and women's roles in marriage. It just doesn't seem to concern me.

_____ 20. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.

_____ 21. My parents know what's best for me in terms of how to choose my friends.

_____ 22. I've chosen one or more recreational activities to engage in regularly from lots of things and I'm satisfied with those choices.

_____ 23. I don't think about dating much. I just kind of take it as it comes.

_____ 24. I guess I'm pretty much like my folks when it comes to politics. I follow what they do in terms of voting and such.

_____ 25. I'm not really interested in finding the right job, any job will do. I just seem to flow with what is available.

_____ 26. I'm not sure what religion means to me. I'd like to make up my mind but I'm not done looking yet.

_____ 27. My ideas about men's and women's roles have come right for my parents and family. I haven't seen any need to look further.

_____ 28. My own views on a desirable life style were taught to me by my parents and I don't see any need to question what they taught me.

_____ 29. I don't have any real close friends, and I don't think I'm looking for one right now.

_____ 30. Sometimes I join in leisure activities, but I really don't see a need to look for a particular activity to do regularly.

_____ 31. I'm trying out different types of dating relationships. I just haven't decided what is best for me.

_____ 32. There are so many different political parties and ideals. I can't decide which to follow until I figure it all out.

_____ 33. It took me a while to figure it out, but now I really know what I want for a career.

_____ 34. Religion is confusing to me right now. I keep changing my views on what is right and wrong for me.

_____ 35. I've spent some time thinking about men's and women's roles in marriage and I've decided what will work best for me.

_____ 36. In finding an acceptable viewpoint to life itself, I find myself engaging in a lot of discussions with others and some self exploration.

_____ 37. I only pick friends my parent would approve of.

_____ 38. I've always liked doing the same recreational activities my parents do and haven't ever seriously considered anything else.

_____ 39. I only go out with the type of people my parents expect me to date.

_____ 40. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe.

_____ 41. My parents decided a long time ago what I should go into for employment and I'm following through their plans.

_____ 42. I've gone through a period of serious questions about faith and can now say I understand what I believe in as an individual.

_____ 43. I've been thinking about the roles that husbands and wives play a lot these days, and I'm trying to make a final decision.

_____ 44. My parents' views on life are good enough for me, I don't need anything else.

_____ 45. I've had many different friendships and now I have a clear idea of what I look for in a friend.

_____ 46. After trying a lot of different recreational activities I've found one or more I really enjoy doing by myself or with friends.

_____ 47. My preferences about dating are still in the process of developing. I haven't fully decided yet.

_____ 48. I'm not sure about my political beliefs, but I'm trying to figure out what I can truly believe in.

_____ 49. It took me a long time to decide but now I know for sure what direction to move in for a career.

_____ 50. I attend the same church as my family has always attended. I've never really questioned why.

_____ 51. There are many ways that married couples can divide up family responsibilities. I've thought about lots of ways, and not I know exactly how I want it to happen for me.

_____ 52. I guess I just kind of enjoy life in general, and I don't see myself living by any particular viewpoint to life.

_____ 53. I don't have any close friends. I just like to hang around with the crowd.

_____ 54. I've been experiencing a variety of recreational activities in hope of finding one or more I can really enjoy for some time to come.

_____ 55. I've dated different types of people and know exactly what my own "unwritten rules" for dating are and who I will date.

_____ 56. I really have never been involved in politics enough to have made a firm stand one way or the other.

_____ 57. I just can't decide what to do for an occupation. There are so many possibilities.

_____ 58. I've never really questioned my religion. If it's right for my parents it must be right for me.

_____ 59. Opinions on men's and women's roles seem so varied that I don't think much about it.

_____ 60. After a lot of self-examination I have established a very definite view on what my own life style will be.

_____ 61. I really don't know what kind of friend is best for me. I'm trying to figure out exactly what friendship means to me.

_____ 62. All of my recreational preferences I got from my parents and I haven't really tried anything else.

_____ 63. I date only people my parents would approve of.

_____ 64. My folks have always had their own political and moral beliefs about issues like abortion and mercy killing and I've always gone along accepting what they have.

APPENDIX H

THE CAREER MATURITY INVENTORY - SCREENING FORM A-2

The Career Maturity Inventory - Screening Form A-2

Developed by Dr's. John O. Crites and Mark L. Savickas

The Career Maturity Inventory Screening Form (Form A-2) has been constructed to survey the various attitudes which are important in making decisions about your career; it is not a personality inventory, an interest inventory, an achievement test, or an aptitude test. The attitude scale, which you are about to take, asks about your attitudes and feelings toward making a career choice and entering the world of work.

Read the statements and write your answers in the space next to each item number. If you agree or mostly agree with the statement, write an "A" in the space next to that item. If you disagree or mostly disagree with the statement, write a "B" in the space next to that item.

Agree	Disagree
A	**B**

_____ 1. Once you choose a job, you can't choose another one.

_____ 2. In order to choose a job, you need to know what kind of person you are.

_____ 3. I plan to follow the line of work my parents suggest.

_____ 4. I guess everyone has to go to work sooner than later, but I don't look forward to it.

_____ 5. You can do any kind of work you want to as long as you try hard.

_____ 6. I'm not going to worry about choosing an occupation until I'm out of school.

_____ 7. Your job is important because it determines how much you can earn.

_____ 8. Work is worthwhile mainly because it lets you buy the things you want.

_____ 9. The greatest appeal of a job to me is the opportunity it provides for getting ahead.

_____ 10. I often dream about what I want to do, but I really haven't chosen a line of work yet.

_____ 11. You should choose a job that allows you to do exactly what you want to do.

_____ 12. Your parents know better than anybody else which occupation you should enter.

_____ 13. If I can just help others in my work, I'll be happy.

_____ 14. Work is dull and unpleasant.

_____ 15. Everyone seems to tell me something different; as a result I don't know what kind of work to choose.

_____ 16. I don't know how to go about getting into the kind of work I want to do.

_____ 17. There is no point in deciding upon a job when the future is so uncertain.

_____ 18. I spend a lot of time wishing I could do work I know I can never do.

_____ 19. I don't know what courses I should take in school.

_____ 20. It's probably just as easy to be successful in one occupation as it is in another.

_____ 21. By the time you are 15 you should have your mind pretty well made up about the occupation you intend to enter.

_____ 22. Whether you are interested in a particular kind of work is not as important as whether you can do it.

_____ 23. I seldom think about the job I want to enter.

_____ 24. It doesn't matter which job you choose as long as it pays well.

_____ 25. You can't go very far wrong by following your parents' advice about which job to choose.

_____ 26. Working is much like going to school.

_____ 27. I am having difficulty preparing myself for the work I want to do.

_____ 28. I know very little about the requirements of jobs.

_____ 29. The job I choose has to give me plenty of freedom to do what I want.

_____ 30. The best thing is to do is to try out several jobs, and then choose the one you like best.

_____ 31. There is only one occupation for each person.

_____ 32. There are so many things to consider in choosing an occupation, its hard to make a decision.

_____ 33. I can't understand how some people can be so certain about what they want to do.

_____ 34. As long as I can remember, I've known what kind of work I want to do.

_____ 35. I want to really accomplish something in my work – to make a great discovery or earn a lot of money or help a great number of people.

_____ 36. You get into an occupation mostly by chance.

_____ 37. It's who you know, not what you know that's important in a job.

_____ 38. When it comes to choosing a job, I'll make up my own mind.

_____ 39. You should choose an occupation which gives you a chance to help others.

_____ 40. When I am trying to study, I often find myself daydreaming about what it will be like when I start working.

_____ 41. I have little or no idea what working will be like.

_____ 42. You should choose an occupation, then plan how to enter it .

_____ 43. I really can't find any work that has much appeal to me.

_____ 44. You should choose a job in which you can someday become famous.

_____ 45. If you have some doubts about what you want to do, ask your parents or friends for advice or suggestions.

_____ 46. Knowing what jobs are open is more important than knowing what you are good at when you choose an occupation.

_____ 47. The most important part of work is the pleasure that comes from doing it.

_____ 48. I keep changing my occupational choice.

_____ 49. As far as choosing an occupation is concerned, something will come along sooner or later.

_____ 50. You shouldn't worry about choosing a job because you don't have anything to say about it anyway.