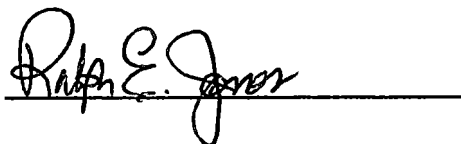


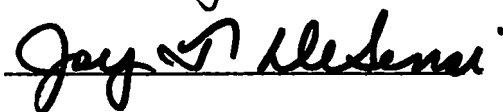
To the Graduate Council:

I am submitting herewith a thesis written by Michael Robert Morris entitled "Temperaments of Intercollegiate Athletics Directors in the NCAA, Divisions I, II, III, and the NAIA." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Human Performance and Sport Studies.


Dennie R. Kelley, Major Professor

We have read this thesis
and recommend its acceptance:





Accepted for the Council:


Associate Vice Chancellor and
Dean of the Graduate School

**TEMPERAMENTS OF INTERCOLLEGIATE ATHLETICS DIRECTORS
WITHIN NCAA DIVISIONS I, II, III AND THE NAIA**

**A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville**

**Michael Robert Morris
December 1999**

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DEDICATION

This thesis is dedicated to the most special people in my life, the ones who have supported me throughout everything I have done, and without whose love none of this would have been possible, my mother and father.

I love you more than mere words could ever say.

This thesis is co-dedicated to Brooke Guge. Your gift of love enlightened me. I am a better person for having known you, and you will always occupy a special place in my heart.

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And to my beautiful dog, Shasta, special thanks for sleeping on my papers, messing up my piles, and especially thanks for your unconditional love. You make me happier than anything in the world.

ABSTRACT

The purpose of this study was to ascertain whether athletics directors (ADs) at NAIA and NCAA Division I, II, and III institutions possessed similar temperaments. Two divisions of data were included in this research, demographics relationships and temperaments of athletics directors. Each division of data were analyzed in three ways (a) total group data, (b) data by division of athletics, and (c) data by gender.

The Keirsey Temperament Sorter, a 70-item personality and temperament assessment questionnaire was used as the instrument of measure for AD temperament style. A random sample of 100 athletics directors, both male and female, representing intercollegiate athletics departments at institutions located in the southeastern United States were selected for participation.

The results revealed that athletics directors shared likenesses unto each other both across divisions of athletics and across gender lines. The results indicated that differences in bylaws and regulations set forth by intercollegiate governing bodies are not reflected in personality and temperament characteristics of the directors who oversee programs within those divisions. Three temperament typologies, ESTJ, ISTJ, and ESFJ constituted the majority of subjects. Three of the four temperament styles were represented, however, SJ temperament subjects vastly outnumbered both NFs and NTs. No SP temperaments were discovered.

This study determined that intercollegiate athletics directors do indeed possess similar temperaments. In general, homogeneity of temperament types and styles exists among intercollegiate athletics directors.

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CHAPTER 1

INTRODUCTION

According to Keirseey and Bates (1984), an individual's temperament is what primarily influences her/his abilities to interact with others. In the workplace, the managers' abilities to effectively communicate with both their associates, as well as their subordinates dictates the success of the organization. This is especially true in smaller organizations such as an intercollegiate athletics department. The athletics director (AD), as the organization manager, must be able to keep all employees in their department on the same page relating to the mission of the whole institution. To accomplish this, it is paramount that ADs possess the necessary skills to lead employees who may prefer to carry out their responsibilities in ways that contrast the preferences of the AD. The goal of this study was to provide the intercollegiate athletics director with a breadth of knowledge regarding the importance of temperament and how to successfully manage other persons working with different temperament styles.

The conventional career patterns and required skills for an intercollegiate athletics director have changed substantially in the last 25 years. In the past, athletics directors were often hired based upon their prowess as a student-athlete or as a coach rather than their administrative experiences and abilities (Branch, 1990). Traditionally, according to Fitzgerald, Sagaria, and Nelson (1994), progression to the top-level of intercollegiate athletics management started with an individual's athletics

participation, followed by coaching experience, succeeded with a position as an associate athletics director, and finally, culminated with a promotion to athletics director. In most instances, these coaches were chosen as ADs due to their popularity and visibility with the university's boosters and fans. Successful collegiate athletics departments were built and maintained by this practice (Branch, 1990).

Changes in intercollegiate athletics during the last 25 years have rendered this method obsolete, however. The position of AD has become far more complex. In addition to the regular duties of budgeting, hiring, and public relations, managerial experience in the forms of external fund raising, leadership, gender equity, race relations, legislative regulations, licensing, and staff supervision have become paramount (Berg, 1990; Fitzgerald, Sagaria, & Nelson, 1994; and Quarterman, 1998). The many "hats" today's ADs must wear have created a need for professionally trained men and women to lead intercollegiate athletics into the twenty-first century.

Intercollegiate athletics has grown into a profit-driven enterprise. In Berg (1990), Mike McGee, Athletics Director at the University of Southern California, stated, "Some degree of business acumen is essential" for the athletics director (pg. 45). Tim Gleason, Associate Executive Director of the National Association of Collegiate Directors of Athletics, continued, "the job today demands so many intricate skills that the coach can no longer just step into the role of athletic director" (pg. 45). Evidence as to the complexities facing ADs today is reflected by the increased numbers of students pursuing

educational training in athletics administration at America's colleges and universities. Enrollments in athletics administration and sports management degree programs have increased more than 500% since 1978 (Fitzgerald, et. al., 1994).

As mentioned previously, one of the principle skills necessary for success as an AD is the effective and efficient management and leadership of employees. One possible way for an AD to learn about personality and temperament is to become aware of her/his own type preferences and the preferences of their employees. To garner this knowledge and put it to use, an AD would benefit from taking a personal profile inventory designed to measure their personality type and their temperament style.

The Myers-Briggs Type Indicator (Myers, 1962), a four-dimensional psychological profile questionnaire based on Carl Jung's theories of personality type, has been widely used to assess individual preferences and behavioral intentions since its creation. Psychological researchers have accepted the Myers-Briggs Type Indicator (MBTI) as the best means to determine a person's attitude toward life and a person's functions of perception and judging (Kroegeer & Thuesen, 1992). The MBTI was designed with the belief that different vocations tend to attract persons of similar personality orientations (Pittenger, 1993).

By definition, the term personality refers to the aspects of one's overall character as viewed by others. The unfortunate reality of the MBTI typological result, however, is that the unique personality one possesses, according to the

MBTI, may only be how outsiders see her/him, not necessarily how she/he sees their own self. The explanation of an MBTI typology often does not include helpful instructions for improved communication and cooperation with persons of a different, and many times completely opposite, personality type (Keirsey & Bates, 1984).

In contrast, the term temperament is defined as the inner most combination of mental and emotional traits that are not generally observable to others. Author David Keirsey (1984) developed the Keirsey Temperament Sorter (KTS) with this definition in mind. The KTS was designed as a shorter alternative to the MBTI, including the same four dimensions and the same sixteen typologies, but with a slightly different means of explanation. The KTS was constructed with the same principles and in the same structure as the MBTI, however the KTS seeks to determine those mental and emotional traits that are not observable to others. Keirsey & Bates (1984) believed that it was a person's temperament, not their personality that governed their daily interactions with others. Thus, four distinct, yet separate, two-letter temperaments were extracted from the original four-dimensional typology of personality to explain one's preferences of outside communication. These two-lettered temperaments allow one to understand and make logical predictions about another person's preferences for gathering information, organizing that information, and evaluating that information (Kroeger & Thuessen, 1992).

LaVasseur (1991) and Kroeger and Theusen (1992), agreed that becoming aware of one's own personality type and temperament can significantly enhance one's understanding of others. As the twenty-first century commences, it has never been more apparent that understanding and relating to others, primarily co-workers, is essential to the success of any organization. At work is where each individual encounters the greatest number of people that are different from her/himself. Success in the workplace is dependent upon the employees knowing not only how to cooperate with each other, but also how to collaborate and negotiate together in order to fulfill the expectations of the managers (Kroeger & Thuesen, 1992). Likewise, it is essential that the managers become aware of what tactics for instruction and motivation will produce the best results and ensure the day-to-day happiness of their subordinates.

Statement of the Problem

In an ideal world, participation in intercollegiate athletics would serve solely as a supplement to a student-athlete's education. This was the philosophy of yesteryear. Yet, college athletics has evolved into a profit-driven business during the last three decades (Berg, 1990; and Branch, 1990). This is especially true for National Collegiate Athletics Association (NCAA) Division I-A institutions. NCAA Division I (D-I) athletics departments operate independently of smaller colleges and universities based on bylaws that require they offer more varsity sports programs (Fitzgerald, Sagaria, & Nelson,

1994). Thus, NCAA D-I athletics programs resemble the largest of corporations.

The intercollegiate athletics director could be considered similar to any other business manager (Berg, 1990). Business managers and athletic directors alike oversee the daily operations of profit-driven corporations. Each has many associates to organize and many subordinates to lead. They are under tremendous pressure to succeed. For the AD, however, program success is measured by two important factors, winning sports programs and making money through the efforts of those teams.

Recently, researchers have utilized both the Myers-Briggs Type Indicator (Jacobsen, 1993; Gyskiewicz & Tullar, 1995; Short & Grasha, 1995; Reynierse & Harker, 1995; and Nordvik & Brovold, 1998) and the Keirsey Temperament Sorter (O'Brien, 1985; Johnson, 1989; Quinn, Lewis, & Fischer, 1992; Tucker & Gillespie, 1993; and Swanger, 1998) to study personality preferences, behavioral intentions, and temperaments of managers in a wide variety of occupational settings. Unfortunately, there has been an absence of investigation on the psychological characteristics of sport managers (Ware, 1984 and Holmes, 1993). It is extremely important for a manager to become aware of her/his own temperament and preferences (Kroeger & Thuesen, 1992). More importantly, a manager must be able to effectively communicate with and motivate her/his subordinates (O'Brien, 1985). The study that follows hopes to provide the intercollegiate athletics director specifically, and the sport

manager in general, guidance in temperament theory and its importance in the everyday needs of their organization, their employees, and their colleagues.

Statement of the Purpose

The purpose of this study was to ascertain whether athletics directors at National Association of Intercollegiate Athletics (NAIA) and National Collegiate Athletics Association (NCAA) Division I, II, and III institutions possess similar temperaments. Results of this study are based upon the scored outcome of the Keirsey Temperament Sorter. The following research questions will be investigated during this study. They are categorized under three separate headings, including (a) demographic relationships, (b) athletics director temperament and, (c) gender differences.

Research Questions

Demographic Relationships

1. Are there differences in demographic profiles of ADs based on level of athletics affiliation?
2. Are demographics different for ADs with respect to gender?

Athletics Director Temperament

3. What temperaments do intercollegiate athletics directors possess most frequently?
4. What differences in temperaments are apparent with regard to the division of athletics?
5. In what dimensions of the Keirsey Temperament Sorter are there significant differences in temperament?

Gender Differences

6. Do men ADs and women ADs within the NAIA and the NCAA share similar temperaments?
7. Are men and women ADs likely to possess similar temperaments based on the competitive division of their programs?

Definitions of Terms

Administrator/Manager: A person who directs the activities of other individuals or groups in an occupational setting.

Athletics Director (AD): A person who oversees the entire daily operations of an intercollegiate athletics program within the NCAA Divisions I, II, or III, or the NAIA.

Keirsey Temperament Sorter (KTS): A personality profile questionnaire (Keirsey & Bates, 1984) based on, and containing the same four dimensions and sixteen type combinations as, the Myers-Briggs Type Indicator (Myers, 1962), but focuses on individual temperament rather than personality.

Myers-Briggs Type Indicator (MBTI): A personality profile questionnaire (Myers, 1962), based on Carl Jung's theories of type preference, containing four dimensions (i.e., Extroversion (E)-Introversion (I), Sensing (S)-intuition (N), Thinking (T)-Feeling (F), and Judging (J)-Perceiving (P)) that together yield sixteen type combinations.

Extroversion (E): The attitude of a person's personality that orients attention to the outer world around them (Myers & McCaulley, 1989).

Introversion (I): The attitude of one's personality that orients attention and energy to the inner world of their own being (Myers & McCaulley, 1989).

Sensing (S): One of two perceptive functions of the Keirsey Temperament Sorter that centers on the value one places on past sensory experiences when gathering information (Kroeger & Thuesen, 1992).

iNtuition (N): One of two perceptive functions of the Keirsey Temperament Sorter that attends to one's preferences for theoretical and futuristic means of gathering information (Kroeger & Thuesen, 1992). The spelling of this function is such that the abbreviation (N) is not to be confused with Introversion (I).

Thinking (T): One of two judging functions in the Keirsey Temperament Sorter that suggests an individual makes decisions on an impersonal basis and evaluates things objectively (Kroeger & Thuesen, 1992).

Feeling (F): One of two judging functions of the Keirsey Temperament Sorter that formulates an individual's decisions in terms of personal values and subjective evaluation (Kroeger & Thuesen, 1992).

Judging (J): A term that refers to an individual's preference for structure and organization in terms of the two judging functions, thinking and feeling (Kroeger & Thuesen, 1992).

Perceiving (P): A term that refers to one's preference for open options and flexibility in terms of the two perceptive functions, sensing and intuition (Kroegeer & Thuesen, 1992).

Undetermined Preference (X): An alternative abbreviation to the original 8 categories, which results when the individual preference scores on both poles of a single dimension are equal, thus, failing to establish a clear preference in that dimension.

NAIA: National Association of Intercollegiate Athletics. A national governing body of intercollegiate athletics, which has no minimum or maximum requirement in the number of varsity sport programs for eligibility of membership (D. Moseley, personal communication, October 6, 1996).

NCAA: National Collegiate Athletics Association. A national governing body of intercollegiate athletics split into five membership levels and three separate divisions each with sets of bylaws and procedures that govern that division's institutions (Membership Services Group, 1998).

Division I (D-I): The group of athletics programs that comprise the hierarchical top-level of intercollegiate membership. D-I athletics programs are distinguished from the other divisions based on their national fan base and recruiting efforts and their larger budget expenditure and revenue dollar figures. This division is further distinguished by a requirement that member institutions offer a minimum of 14 varsity athletics sports (Membership Service Group, 1998).

Division II (D-II): The lower division of NCAA intercollegiate athletics, which generally recruit on a regional basis and often do not attract national fan attention. In addition, member institutions are required to offer a minimum of 9 varsity athletics sports (Membership Services Group, 1998).

Division III (D-III): The only division of NCAA intercollegiate athletics in which there are no awarded athletics scholarships to participants.

Personality: The aspects of a person's overall character as seen by others.

Preference: The characteristics of one's personality or temperament most likely to be used in a given situation.

Psychological Type: One of sixteen possible four-lettered combinations based on the four separate dimensions and the eight individual preferences in the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter.

Temperament: The combination of a person's mental and emotional traits not generally observable to others (Keirsey and Bates, 1984). A Temperament is designated as one of four possible two-letter combinations of an individual's personality that describe an overall preference for gathering information, a preference for organizing that information, and a preference for evaluating that information (Kroeger & Thuesen, 1992).

Assumptions

For the purposes of this study, it was assumed that the 70-item Keirsey Temperament Sorter (KTS) is a valid and reliable means of assessing personality and temperament. In addition, it was assumed that the KTS

results obtained in this study, based on existing literature, would closely resemble the results that would have been obtained were the MBTI used, in its place. It was further assumed that the athletics director to whom the study packet was addressed was in fact the person who completed and returned both the Keirsey Temperament Sorter and the demographics questionnaire. A final assumption was that the participants in this study responded to all questions in an honest manner.

Limitations

The research involved in this study was limited by the rate of return of the participants. It was limited by a random sample of athletics directors employed by NAIA and NCAA Division I, II, and III four-year accredited colleges and universities located in the southeastern region of the United States. This study was also limited to both female and male directors of athletics who possess the daily control of an entire intercollegiate athletics department that included both men's and women's varsity sports programs.

Delimitations

The research conducted in this study was delimited to the 70-item Keirsey Temperament Sorter, a personality profile inventory based upon and containing the same principles as the Myers-Briggs Type Indicator. It was also delimited to both female and male intercollegiate athletic directors who met the necessary criteria and returned the completed questionnaires, thus granting their consent to participate in the study. A final delimiter of the study was the

requirement that all subjects were currently employed at colleges and/or universities located in one of eleven selected southeastern United States.

Significance of the Study

As mentioned in this chapter, a manager who is aware of her/his own temperament preferences, and those of their subordinates, will create a more productive and enjoyable workplace (O'Brien, 1985). Thorough understanding and application of temperament theory can ultimately enhance communication, cooperation, and effectiveness between individuals. Keirsey and Bates (1984) stated, "It is not enough for a manager to appreciate and understand the temperaments of his subordinates; he also must know how his own temperament affects his leadership" (pg. 153). Furthermore, a manager could utilize her/his typography, in conjunction with the temperament preferences of their employees, to better hire and train their staffs (Kroeger & Thuesen, 1992). In lieu of the absence of research on effective management of sport organizations, the study that follows seeks to provide sport managers in general, and intercollegiate athletics directors in particular, with a breadth of knowledge regarding the benefits of using typological theory in order to enhance communication, cooperation, and effectiveness in their organization.

CHAPTER 2

REVIEW OF LITERATURE

This review of literature focuses on personality and temperament studies conducted on various management professions and general characteristics of successful intercollegiate athletics managers. The literature presented in this chapter represents editorial articles, instruction manuals, opinioned articles and books, refereed journal articles, and review articles. Initially, this review describes two principal personality questionnaires, including the Myers-Briggs Type Indicator (MBTI) (Myers, 1962) and the Keirsey Temperament Sorter (KTS) (Keirsey & Bates, 1984), each of which is widely utilized by current psychologists and counselors. Studies assessing MBTI and/or KTS reliability, stability, and validity are also presented. Next, published research on the qualities of leaders and managers in a wide array of occupations, including sport management professions and management styles is provided. Furthermore, a review of recent literature pertaining to intercollegiate athletics is given, specifically including research conducted on the career paths of intercollegiate ADs, the differences of sport managers with respect to gender, and the characteristics, personalities, and temperaments of athletics directors. Finally, summaries of the reviewed literature are provided, containing consistent results, conflicted results and theories, and implications for future research on temperament in management and leadership occupations.

Descriptions of the MBTI and the KTS

The information contained in this section is meant to provide an understanding of both the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter. However, the background information is presented solely as the MBTI due to its position in psychological history as the foundation by which many other personality profile inventories, including the KTS, are based. When description of the notion of temperament is necessary, the KTS will be the focus of the information provided.

Myers-Briggs Type Indicator

The Myers-Briggs Type Indicator (Myers, 1962) is a personality profile assessment based on Carl Jung's theory that human behavior is very orderly and consistent. Jung developed his theories of typology for the purposes of self-understanding (O'Brien, 1985). The basis of Jung's theory is that every person falls toward one of two opposing poles in terms of four indices: Extroversion-Introversion (E-I), Sensing-Intuition (S-N), Thinking-Feeling (T-F), and Judging-Perceiving (J-P). Carl Jung's type theories are based upon three factors. They include (a) the source from which information is received, (b) the ways in which people perceive that information, and (c) the ways in which people arrive at conclusions based upon that information (Myers, 1962).

The major objective of the MBTI is to measure a person's cognitive style and their intentions to behave (Short & Grasha, 1995). Each scored item is weighted toward opposite poles in terms of the four dimensions. Each of the eight individual preferences are then assessed a point value. Once the

points for each preference are totaled, eight separate numerical scores are reported. Persons accumulating more points for E than for I, for example, are classified as extroverts, while those accumulating more points for I than for E are labeled as introverts. Consequently, a person can only exclusively rate as either an E or I score, but not both (Myers & McCaulley, 1989). However, each person normally possesses characteristics of both E and I, thus the true letter designation for that dimension is not concretely final. Rather, each person's score for each preference within each dimension is a degree to which that person prefers one pole to the other (Myers & McCaulley, 1989). The numerical portion of a score, which is termed a raw score, indicates how strongly the MBTI reports the preference.

The first index of the MBTI is extroversion-introversion. In Jung's view, psychic energy flows in one of two directions. Outward flowing psychic energy is referred to as extroversion, while inward flowing psychic energy is called introversion. The distinction determines one's attitude or primary direction for mental functioning.

Individuals who possess an extroverted personality tend to focus on the world around them. This is how they gain their energy. For instance, an extrovert could attend a party until two o'clock in the morning, and then leave with the desire to attend another party. Introverts, on the other hand, are not as socially active as their counterparts. Rather, the introvert is much more territorial than social. Introverts seek to find enjoyment on their own. Introverts are equally capable of experiencing loneliness as extroverts, yet this

loneliness most often occurs when they are in a crowd. They enjoy being around others, but doing so taxes their reserves.

According to Keirsey and Bates (1984), western culture tends to sanction an outgoing and social temperament. In the United States, for example, extroverts outnumber introverts three-to-one (Bradway, 1964 and Kroeger & Thuesen, 1992). Extrovert types tend to view solitary activities as a means of filling a void of time until there is a better available option. This explains why the introvert is often viewed as shy, soft-spoken, or even stuck-up. The authors state that, "The notion of anyone wanting or needing much solitude is viewed as reflecting an unfriendly attitude" (Keirsey & Bates, 1984, p.16).

While the E-I dimension may be quite important in helping people understand each other, the sensing-intuition scale may be the source of more miscommunication and misunderstanding than any of the other indexes of the MBTI (Keirsey & Bates, 1984). Sensible individuals place a premium on factual information and possess a strong sense of reality. They rely heavily on personal experiences when making decisions. Sensing types are described as being grounded, and they are practical sorts of people. It can be said that sensing personalities absorb the majority of their information through the five senses, and because they do so, they are keen observers of detail. Recent studies by Kroeger and Thuesen (1992) reported 70% of the general population is typed as sensing.

Contrasting sensing preference individuals are intuitive types. Intuitive types are inclined to gain information through what can be called a "sixth" sense. They live in anticipation of what possibilities exist in the future and are often labeled as visionaries. Clear and complete ideas come to the mind of an intuitive in an instant, and she/he may not even be able to explain why. Intuitive persons often appear restless and dissatisfied. In their haste to find better possibilities, they may overlook key details of current situations. Approximately, 30% of the population is typed as intuitive, according to Kroeger and Thuesen (1992).

The only dimension of the MBTI that exhibits an equal percentage split in the whole population is the thinking-feeling preference (Bradway, 1964 and Kroeger & Thuesen, 1992). According to Myers (1962) and Keirsey and Bates (1984), the thinking-feeling scale is also the only pair of preferences that is statistically unbalanced based upon gender. Sixty percent of men are thinking types, while sixty percent of women are feeling types.

Persons with a preference for thinking make their choices on an impersonal basis. They strictly follow rules and guidelines. Thinkers rationalize logically and evaluate situations with the aid of objective criteria. Their point of view persuades others because of their power at argumentation. A thinker may be very emotional, however, she/he often does not release those emotions. Thus, outsiders see them as being cold-hearted or insensitive.

Feeling types differ from thinkers in that they choose their options in a personal manner. The feeling person is inclined to base a decision on how the outcome will affect others. She/he will evaluate a given situation in subjective fashion, being more concerned with the circumstances surrounding the situation than the rules governing that situation (Keirsey & Bates, 1984). A feeling person often shows physical signs of emotion such as moist palms, changing face color, or accelerated breathing rates, so they are assumed to be more warm-hearted and sensitive. This outward flowing of emotion makes feeling type individuals quite successful with persuasion.

Misunderstanding can manifest itself between Ts and Fs. These misunderstandings are usually attributed to one or the other being forced to make decisions in an unnatural way (Keirsey & Bates, 1984). Fortunately, if the two types fully understand and appreciate one another, they are able to compliment each other extremely well. This result is significantly different than any of the other MBTI dimensions.

The final dimension of the MBTI is the judging-perceiving preference. This scale is the most confusing to understand. Often, the term judging is confused to mean "judgmental", while the term perceiving is believed to mean "perceptive". These definitions are, however, inaccurate. Judging types, in fact, are not necessarily more judgmental than perceiving types. Likewise, perceiving types are not more perceptive than judging types.

The most accurate definitions of these two dimensions of temperament are that judging means closure and perceiving means open-ended. Keirsey

and Bates (1984) clarify these definitions by stating that, without regard to the other three scales of the MBTI or KTS, "Js share an attitude toward work and play quite different from that of the Ps" (pg. 23). Persons who are typed as judging typically believe that work should come before anything else, especially play or rest. In opposition, perceiving types seem to possess a play ethic rather than a work ethic. Work, in a Ps opinion, does not necessarily need to be completed before play begins. In addition, Ps even believe even their work should be enjoyable. To that end, it may be said that judging types more outcome-oriented, while perceiving types more process-oriented.

When making decisions, judging individuals seek closure. They become anxious prior to a decision, and they are at rest once the decision has been made. At work, the J will establish deadlines and take those deadlines seriously. When a deadline is placed on the project of a subordinate, Keirsey and Bates (1984) suggest that the J employer will probably set an extra early deadline in order to be sure that the project will be completed on time. Extreme judging types will under no circumstances play or rest until all work is finished. They are often described as work-a-holics.

The methods of perceiving types, in terms of formulating decisions, are much different than that of judging types. Ps prefer open options to closure. They experience great resistance to having to make a final decision because they wish to accumulate more data to assist them in the decision making process. This resistance leads to feelings of uneasiness and uncertainty once the decision has been made. For the perceiving worker, the established

deadline is commonly used as a signal start to begin work. Any diversion to work is seen as enjoyable to the extreme P, even if it means that when the deadline nears, the stress to finish is intensified. The strategy of a P employer is to establish an early due date on a subordinate's project so that she/he can be sure the project will be completed on time (Keirsey & Bates, 1984). The employer utilizes this tactic out of fear and distrust based upon her/his own personality and temperament traits.

The MBTI (Myers, 1962), and the KTS (Keirsey & Bates, 1984) alike, each yield sixteen ($2 \times 2 \times 2 \times 2$) type combinations based on the four indices (Table 1). The type formulas stand for a complex relationship among the four functions (S, N, T, and F), the two attitudes (E and I) and the two orientations (J and P) to the outer world (Myers & McCaulley, 1989). In each type category, one function will be dominant, and one function will be auxiliary. The tertiary, or third, function is the one opposite to the auxiliary, and the fourth, or inferior, function is opposed to the dominant (Kroeger & Theusen, 1992). For example, an individual that is typed as ISTJ exhibits a dominant function of Sensing and an auxiliary function of Thinking. That produces a tertiary function, which opposes that of Thinking. In this example, that third function would be Feeling, since F is the opposite of T. Finally, the fourth function, which is usually the least developed, would be iNtuition because N is the opposite of S (Myers & McCaulley, 1989).

Table 1: The sixteen personality types and temperament styles as determined by the Keirsey Temperament Sorter. (Table adapted from Keirsey & Bates, 1984 and Kroeger & Thuesen, 1992).

ISTJ (SJ)	ISFJ (SJ)	INFJ (NF)	INTJ (NT)
ISTP (SP)	ISFP (SP)	INFP (NF)	INTP (NT)
ESTP (SP)	ESFP (SP)	ENFP (NF)	ENTP (NT)
ESTJ (SJ)	ESFJ (SJ)	ENFJ (NF)	ENTJ (NT)

Keirsey Temperament Sorter

To fully understand the Myers-Briggs Type Indicator and the Keirsey Temperament Sorter, it is necessary to study beyond the scopes of the four indices and the sixteen typologies, however. Keirsey (1998) stated that, "Individuals are predisposed to develop into one of four different configurations of attitude and action" (p. 26), and this notion dates back over two thousand years. Thus, Keirsey and Bates (1984) introduced the notion of Temperaments, which are two-letter abbreviations of the original four-letter typology. Temperaments serve both, as a shortcut to the identification of an individual's personality preferences and as a predictor of her/his behavioral tendencies. The four Temperaments, as explained by Keirsey and Bates (1984), are Sensing-Judging (SJ), Sensing-Perceiving (SP), iNtuitive-Thinking (NT), and iNtuitive-Feeling (NF). Each temperament represents a combination of the preferences associated with two dimensions of the KTS (Keirsey & Bates, 1984 and Kroeger & Theusen, 1992).

The initial determinant of a person's Temperament is her/his preference for either Sensing or iNtuition (Kroeger & Theusen, 1992). The S-N scale reveals the methods by which a person gathers information. A sensor collects data through the use of the five senses and does so concretely and factually. Once the data are collected, the sensor's next process is to organize that data. This organization of data is accomplished one of two ways depending on the individual's preference in the J-P scale. If the information is immediately organized, then the sensor exhibits a preference for Judging. If the individual

seeks to obtain more information prior to organizing it, then she/he prefers Perceiving. Thus, sensors can be identified by one of two different Temperaments, either SJ or SP (Kroeger & Thuesen, 1992).

In contrast to sensors, the means of gathering information by an intuitive is much more conceptual and abstract (Kroeger & Thuesen, 1992). An intuitive evaluates the incoming information as soon as it is received. This is done either objectively or subjectively. The MBTI dimension that explains an individual's preference for evaluation is the Thinking-Feeling dimension, thus, the second letter of intuitive Temperament is either T or F. If the information is evaluated objectively, then the intuitive is also a thinker. Conversely, if the intuitive evaluates the information subjectively, then a preference for feeling is shown. Clearly, the two Temperaments for an intuitive are NT or NF (Kroeger & Thuesen, 1992).

Temperament definitions are based on what Keirsey (1998) called "the skilled actions" (p. 30) of individuals and their observable preferences for gathering information. Keirsey & Bates (1984) labeled SJs as the "Traditionalists" or "Stabilizers" in an organization. They gather information practically and realistically (sensing), and that information is organized that information and put it to immediate use (judging). SJs are decisive, detail-oriented and reliable. SJs thrive on procedure and are committed to deadlines. Representing 38% of the population (Kroeger & Thuesen, 1992), SJs make excellent administrators particularly in systems that require high

degrees of precision and organization. A SJ's unique contributions to an organization are stability and confidence (Keirsey & Bates, 1984).

Like SJs, SPs also collect their data through their sensing preferences, but to that data they add spontaneity and flexibility (perceiving). Of all the Temperaments, SPs are the most grounded in reality. They are the "Troubleshooters" and "Negotiators" of the organization (Keirsey & Bates, 1984), thus they excel at resolving crises and solving problems. Also representing 38% of the population (Kroeger & Thuesen, 1992), SPs prefer occupations offering instant gratification and are not often likely to ascend to top-level management positions. Their unique contributions to an organization include excellent problem solving skills and an aura of excitement (Keirsey & Bates, 1984).

Individuals typed as NT temperament gather data in abstract ways (iNtuition) and filter that data through objective decision making processes (Thinking). NTs, who comprise 12% of the population, are the strategic planners and researchers of an organization (Kroeger & Theusen, 1992). NTs are often considered to be "Traditionalists", however, they garner more knowledge by challenging the system than they do by following set procedures (Keirsey & Bates, 1984). A vision in the long-term and a mind for change are the unique qualities of an NT (Keirsey & Bates, 1984).

NFs also see possibilities with information (iNtuition), but they translate those possibilities both intra- and interpersonally (feeling). Their immeasurable love and concern for people is what separates NFs from the

other temperaments. Keirsey and Bates (1984) called NFs "Catalysts" because they seek to involve themselves and everyone else into every situation. NFs make up 12% of the population (Kroeger & Theusen, 1992). Sometimes NFs have a difficult time serving as supervisors because their concern for people can override what is actually best for the organization. However, their ability to predict the social consequences of organizational decisions is invaluable (Keirsey & Bates, 1992).

Once again, temperaments are only a shortcut to personality type as measured by the KTS. However, once the basic characteristics of temperament are understood, it becomes easier to predict one's personality preferences (Kroeger & Thuesen, 1992). Specifically, the only dimension of the KTS that is not involved in temperament study is the E-I dimension. Since the E-I scale is the simplest of all the scales to grasp, two-letter temperaments allow accurate predictions to be made in regards to overall personality type.

Reliability, Stability, and Validity of the MBTI and the KTS

This section will assess three utility measures for the MBTI and the KTS in the following order (a) reliability of the instruments, (b) stability of the instruments, and (c) validity on the instruments. Literature profiled in this section will focus primarily on assessments of the MBTI due to the shortcoming of studies related to the Keirsey Temperament Sorter. Included are a few studies pertaining to the KTS. However, the authors of those studies resorted to comparisons of the MBTI and the KTS unto each other, rather than measuring the individual utilities of the KTS. Therefore, this researcher

assumed that the two instruments' reliability, stability, and validity results resemble and represent one another.

Reliability of the Instruments

Researchers have long agreed that the MBTI is a reliable instrument in personality assessment. As evidence of their collective agreement, researchers have used a variety of statistical procedures to measure internal consistency of the type categories. Carlyn (1977) reviewed MBTI reliability in three studies, and each exhibited satisfactory reliability coefficients. The first study used Phi coefficients as the statistical measure, the second used Tetrachoric coefficients, and the third used continuous scores. Continuous score correlations were somewhat higher than the estimates of type categories. This result, according to Carlyn (1977), was probably due to the loss of information, such as strength of preference that occurs when the continuous scores are changed to dichotomous type categories. Carlyn (1977) recommended using estimates of "split-half reliabilities by calculating tetrachoric correlation coefficients and applying the Spearman-Brown prophecy formula" (pg. 465). This approach assumes that underlying scores are distributed normally across each index, and therefore yield higher reliabilities.

Carskadon (1977) also studied the test-retest reliability on all four dimensions of the MBTI. A typical psychological study population was used, consisting of 134 introductory psychology students (70 females and 64 males) at Mississippi State University. The subjects completed Form F of the MBTI

initially, and did so again seven weeks later. Men and women were considered separately when the results were analyzed.

Pearson r formulas were used to calculate continuous scores with all test-retest correlation coefficients significant to the .01 levels. Results were relatively equal for men and women in both the E-I scale ($r = .79$ for men and $r = .83$ for women) and in the S-N scale ($r = .79$ for men and $r = .82$ for women) (Carskadon, 1977). The coefficients tended to be significantly higher for women than for men in the T-F scale ($r = .73$ for women and $r = .56$ for men) and the J-P scale ($r = .87$ for women and $r = .76$ for men) (Carskadon, 1977). Carskadon (1977) also performed Fisher Z_r transformations on the data, and the results revealed that the coefficients tended to be higher for women than for men in both the T-F and the J-P dimensions.

MBTI assessments by Carlson (1985) reviewed reliability on internal consistency of the four dimensions on the more recent Form F and Form G of the Indicator. At the time of Carlson's (1985) review, reliability studies were still sparse in number, however, the majority showed strong internal consistency on the E-I, S-N, and J-P scales over time. The only dimension that raised questions regarding its consistency was the T-F index. Since the studies cited by Carlson (1985), utilized demographically similar groups, he believed further reliability research should be conducted utilizing more diverse subject populations over longer periods of time.

Stability of the Instruments

A section of the review by Carlyn (1977) also examined six previous studies related to stability of the MBTI. Four of the studies measured the stability of individual typologies. Three were performed with college students as subjects, and one was performed using elementary school teachers. Carlyn (1977) discovered significant support for stability in each of these studies. All studies exhibited stable scores over time. This was especially true of the study on teachers, which resulted in 61% of the 94 subjects remaining the same in all four scales of the MBTI in test-retest format.

Two additional studies reported by Carlyn (1977) yielded significant continuous score stability. In each, females' scores were more consistent over time than males' scores, with statistical significance set at the .01 levels. After reviewing the overall data, Carlyn (1977) stated "perhaps stability of scores is a function of occupation or age" (p. 467).

Much more recently, Salter, Evans, and Forney (1997) performed test-retest strengths on dominant functioning of MBTI categorical and metric scores. The test-retest format for the study was extended to a 20-month period and was conducted on 99 psychology graduate students. Participants were administered Form G of the MBTI during their first and last semesters of a two-year graduate program, the content of which was both feeling and perception oriented.

For analysis, Salter et al (1997) employed two approaches. First, participants' scores were converted to continuous scores, and Pearson

product moment correlation coefficients were computed on all four scales of the MBTI following each administration. Next, log-linear analyses, likelihood chi-squares, and lambda coefficients were examined. In addition, standardized residuals were scrutinized as a post hoc test. Each subject was assigned a dominant function (S, N, T, or F), and the dominant function results were analyzed in a log-linear approach.

Results of the study, (Salter et al., 1997) showed test-retest correlation were significant on all four dimensions of the MBTI: T-F = .69, to S-N scale = .75, and both the E-I and J-P scales = .77. Likelihood chi-squares were all deemed significant, and lambda estimates were also acceptable (J-P = .59, E-I = .60, T-F = .64, and S-N = .86). The independence model of dominant function groups exhibited a statistically significant likelihood chi-square, $G^2(9, N=99)=48.69, p<.00$. Finally, the standardized residuals with probabilities for each dominant function were: iNtuition= 3.63 (.000), Feeling = 3.23 (.001), Sensing = 2.31 (.021), and Thinking = 0.98 (.327).

Each of the four MBTI scales demonstrated stability in the 20-month test-retest format of the study (Salter et al., 1997). The categorical scores of the S-N and T-F indexes also resulted in improvement over the 20 months. Post hoc analyses of standardized residuals suggested, however, that the Extroversion (SR = 2.07), Feeling (SR = 2.45), and Judging (SR = 2.06) dimensions were less stable than the other five dimensions. Post hoc analyses further indicated that subjects categorized as dominant N (SR = 3.63), and dominant F (SR = 3.23), retest well.

Validity of the Instruments

In terms of validity, Carlyn (1977) reported results of studies that examined all three types of MBTI validity (a) content validity, (b) predictive validity and (c) construct validity. Studies revealed that both content validity questions and construct validity questions were congruent with Jung's theories that a four-dimensional structure of personality exists. Agreement on the E-I scale consistently ranged between 96-100%. The S-N scale was consistently between 68-75% agreement. Predictive validity studies showed moderate levels of validity in certain areas, but Carlyn (1977) felt that this area needed further examination before a generalization could be made. Carlyn (1977) concluded that a contingency measure combining all four scales of the MBTI had far greater predictability than did the individual scales.

A study conducted by Cohen, Cohen, and Cross (1981) focused solely on construct validity of the MBTI. The purpose of the study was to attempt to clarify contradicting results of previous MBTI construct validity examinations. Cohen et al (1981) used three modules of data (a) subjects' types as generated by results of the MBTI, (b) subjects' self-types of themselves based upon their "ideal self" perceptions, and (c) subjects' perceived types as reported by their spouses to test constructs of the Indicator. An assumption was made that married individuals know their spouses well. As Cohen, Cohen, and Cross (1981) stated, "If Myers constructs are valid, they ought to be recognizable by individuals who know one another well, and they ought to be in agreement with those generated by the MBTI" (p. 886).

Subjects were 31 married couples. One member of each couple was an undergraduate psychology student who was participating in the study for extra credit. Each individual took part in the study as both a subject and as a rater. Three married students took part without their spouse. Seven additional couples comprised a "Growth Group" consisting of faculty members from outside the Department of Psychology, and their spouses also participated in the study. There were 48 subjects in all, with 45 serving as raters (Cohen et al., 1981).

For the purposes of the study, Cohen et al (1981) designed a Behavioral Styles Inventory (BSI) consisting of eighteen questions. Four of the items were presented as pairs containing features of Jung's typology theories, and the remaining 14 questions were implemented to disguise the nature of the study. Three versions of the BSI were created for three administrative forms; i.e., Form S (scored by the subject), Form I (scored by the subject as their "ideal self") and Form M (filled out by the subject's mate). All of the questions in the BSI were graded by a seven-point Likert scale, which included categories ranging from "all or almost all" to "none or almost none". Both student subjects and their spouses were assigned to separate groups, either Group A or Group B. The seven couples from the other departments participated in both Group A and Group B.

The procedures of the study (Cohen et al., 1981) varied by groups. Group A completed only Form M (mate) of the BSI, while Group B completed BSI Form S (subject); BSI Form I (ideal); and the Myers-Briggs Type Indicator

Form F, in that order. The "Growth Group" completed all requirements for both groups. Subjects' scores on the BSI were converted to a type category based on their answers toward either side of the midpoint on the seven-point Likert scale. Answers directly on the midpoint were scored as type indeterminate categories. BSI and MBTI type categories were then compared by the coefficient of agreement, Kappa, for nominal data.

No significant correlation between the MBTI and Form S of the BSI was discovered (Cohen, Cohen, and Cross, 1981). There was a slight positive to moderate negative correlation between the MBTI and Form I of the BSI. Significant positive Kappa coefficients were reported between the MBTI and Form M of the BSI in comparisons of the Extroversion-Introversion (Kappa = .70, $p < .001$), the Sensing-iNtuition (Kappa = .43, $p < .01$), and the Thinking-Feeling (Kappa = .78, $p < .001$) scales of the MBTI. Kappa for the Judging-Perceiving scale was below zero, and therefore deemed non-significant.

Study of comparisons between the MBTI and other personality profile inventories, were assessed by Carlson (1985), as well. In most of his reviews, Carlson (1985) reported positive correlation between the MBTI and the other tests, particularly in the E-I dimension. The other profiles mentioned in the article each contained a scale similar to that of extroversion-introversion. Carlson (1985) failed to acknowledge any other dimension with a valid positive correlation. Yet, this could have resulted from a possible lack of validity in the other personality inventories, not the MBTI. Therefore, no evidence of proof was given regarding a lack of validity of the S-N, T-F, and J-P indexes.

O'Brien (1985) stated that the MBTI is one of the most validated instruments used in psychological study, yet there have emerged other inventories which may favorably compare to the MBTI. Since the creation of the Keirsey Temperament Sorter (Keirsey & Bates, 1984), researchers have compared the MBTI and the KTS to determine if the two instruments are valid unto one another. In his review of Jungian typology instruments, O'Brien (1985) reported the KTS to be an acceptable substitute for the MBTI. Quinn, Lewis, and Fischer (1992) agreed, based upon the Sorter's gain in popularity with educators, counselors, and consultants.

Quinn et al (1992) supported these statements with the results of their study on 191 business administration students. Each subject completed both the MBTI (Form G) and the KTS. The SYSTAT correlation program was used for all data analysis ($p = .001$). Pearson r correlation results on each of the eight preferences were all deemed significant. Correlation results: .729 on Extroversion; .728 on Introversion; .672 on Sensing; .655 on iNtuition; .538 on Thinking; .741 on Feeling; .620 on Judging; and .622 on Perceiving. In all cases, the higher of two correlations in any one scale of the MBTI was also the higher corresponding correlation on the KTS, indicating that the scales are independent of each other (Quinn et al., 1992).

A similar study by Tucker and Gillespie (1993) advanced MBTI and KTS validity further. The study included 103 participants, all whom completed Form G of the MBTI. The group was then split in two, and 55 subjects took

the Keirsey Temperament Sorter, while the remaining 48 subjects took Please Understand Me-Computer Version (Dean, 1985).

Pearson product moment correlation scores on the KTS for each dimension were significant. The scores: .76 on E-I scale; .84 on S-N; .68 on T-F; and .73 on J-P. Please Understand Me correlation scores were also significant: .85 on E-I; .83 on S-N; .86 on T-F; and .84 on J-P (Tucker & Gillespie, 1993). When comparisons were made in personality type, 62% of KTS subjects matched all four MBTI dimensions and 22% changed in only one dimension. The Please Understand Me group matched the MBTI 50% of the time, while 42% changed in one category (Tucker & Gillespie, 1993). Ninety percent of the subjects reportedly preferred the computer version of the KTS to the MBTI. On a 10-point scale, a mean satisfaction rating of 7.9 was given to the Please Understand Me-Computer Version. Tucker and Gillespie (1993) concluded that the MBTI and the KTS measure the same constructs, and therefore, are valid unto one another.

Summary of Reliability, Stability, and Validity Studies

The literature contained in this review mostly followed similar procedures. Demographically, subjects were primarily college students who received course extra credit in exchange for their participation. The researchers agreed unanimously that further study should focus on more diverse populations, with longer test-retest formats, and other personality profile questionnaires.

Based on the content of this review, the Myers-Briggs Type Indicator has produced favorable reliability, stability, and validity results for several researchers. Carlyn (1977), Carskadon (1977), and Carlson (1985) collectively discovered that MBTI reliabilities were statistically acceptable regardless of methods of analysis. The best results were attained by the use of either, Tetrachoric coefficients and applying the Spearman-Brown prophecy formula, as Carlyn (1977) suggested, or Pearson r formulas or continuous scores in a test-retest format, as performed by Carskadon (1977).

Six studies reviewed by Carlyn (1977) and a study conducted by Salter, Evans, and Forney (1997) used the test-retest format for MBTI stability of typologies. The reviewed studies (Carlyn, 1997) resulted in statistically significant stability, and though the subject populations were relatively similar, the statistical methods were quite diverse. Salter et al (1997) used likelihood chi-squares, lambda estimates, and standardized residuals, not only on the four MBTI dimensions, but also on the four individual functions (S, N, T, and F). All results of MBTI stability reported in this review were exceptional.

Both assessment and research articles contained in this review have also evaluated content, predictive, and construct validity measures of the MBTI itself, and between the MBTI and other inventories. Carlyn (1977), Cohen, Cohen, and Cross (1981) and O'Brien (1985) agreed on the MBTI as the most validated psychological instruments available to researchers. In comparison studies, Cohen et al (1981) determined that subjects had some difficulty in predicting their own typology, while Carlson (1985) concluded that

some MBTI scales could be invalid. However, in both instances, the authors failed to acknowledge that the lack of validity might be associated with the other instrument, not the MBTI. Other comparisons between the MBTI and other instruments (Quinn, Lewis, & Fischer, 1992 and Tucker & Gillespie, 1993) resulted in significant Pearson r correlation coefficients between the MBTI and the Keirsey Temperament Sorter on each of the four scales and all eight of the individual preferences. Thus, the only instrument included herein that was deemed as valid as the MBTI was the KTS.

Qualities of Managers and Management Styles

This section will explain the different levels of management occupations and how those levels relate to intercollegiate athletics. Also included in this section will be a review of recent literature regarding personality studies of managers in a variety of occupational settings.

Bridges and Roquemore (1996) defined management as "the achievement of predetermined objectives working through others" (p. 8). Management occupations are generally categorized as either top level, middle level, and lower level, depending on the necessary skills and responsibilities placed upon the manager. Top-level management refers to occupations in which the administrator governs the daily operations of the entire organization. These positions require strong conceptual skills. The top level manager must not only be able to quickly solve immediate problems, but also be able to forecast any future hurdles the company may need to clear (Bridges & Roquemore, 1996).

In collegiate athletics, the athletics director position is often considered top-level management because she/he oversees the operation of the entire department on a daily basis. This is particularly true in NCAA Division I, where the AD resembles a corporate CEO. The Division I AD usually has associates to supervise, and the organization as a whole is a profit enterprise. Yet, it is the associates who handle the orderly tasks, while the AD concentrates on more long-range issues.

Middle management positions, on the contrary, place a premium on human relation skills and technical proficiency. The middle manager is often the one who both deals directly with outsiders and assumes the responsibility for supervising the subordinates. A middle manager also needs to be abreast of how every aspect of the organization works and how to repair the broken parts. According to Bridges and Roquemore (1996), the lone skill differentiating between top and middle management positions is conceptualizing.

Middle management exists in collegiate athletics, as well, in the form of smaller colleges and universities. Smaller college division athletics departments differ from NCAA Division I from the standpoint of the AD. The small college AD acts more as a liaison between the university president, who directly supervises the athletics department, and the coaches, whom the AD supervises. In small college athletics, the AD has a more hands-on duty, and thus, their position is more middle level management.

Personality Studies in Management

Johnson (1989) examined the relationship between temperament and preference of supervision style in certified educators. The subjects were 132 teachers (n=113), counselors (n=5), principals (n=11) and superintendents (n=3) employed in Oklahoma public school districts during the 1987-88 academic year. There were 37 men and 95 women combined, with a mean age of 42.5 years, included in the sample. All subjects completed two questionnaires, the KTS and the Supervisory Behavior Description Questionnaire (SBDQ). Based on the four KTS temperament styles, Johnson (1989) assessed whether subjects' temperaments impacted their preferences for directive, collaborative, or non-descriptive supervisory styles.

All results obtained in the study (Johnson, 1989) were tabulated using SYSTAT. Distributions of both the temperament categories and the supervision preferences were analyzed using chi-squares and one-way ANOVAs. For further assurance as to the validity of the results, the Bartlett Test for Homogeneity of Variance was performed.

The subjects, in general, were more extroverted than introverted. Temperament preferences showed a predominance of SJs (67.4%), with only a small percentage typed as NFs (15.2%) or NTs (7.6%). Nearly ten percent of the subjects had an undetermined temperament, meaning their raw scores in the S-N dimension, the initial determinant of temperament style, were equal, and therefore, an "X" letter was assigned to their temperament. An X in the S-

N category renders the other preferences of temperament useless.

Interestingly, there were zero SPs typed in the study (Johnson, 1989).

For supervision style, SJs preferred directive style. Otherwise, there was no correlation with any of the temperaments and supervision styles.

Johnson (1989) discovered that most subjects preferred directive supervision for staffing, materials, and community relations type tasks. However, directive supervision was the least preferred style in curriculum, instruction, staff development, student services, and evaluation duties. The largest number of the subjects reported a preference for collaborative supervision (Johnson, 1989).

Many psychology researchers have focused their studies possible relationships between the MBTI and other inventories of the same type. One such study by Jacobsen (1993) examined the relationship between the Kirton Adaption Innovation Theory (KAI) and the MBTI on service managers in the United States. The KAI is a 32-item, self-report test used to measure two cognitive styles of creativity, problem solving and decision-making. The opposite styles of creativity, Innovators and Adapters, form a bipolar continuum of personality (Jacobsen, 1993). Innovators are able to devise new solutions to problems, while Adapters solve problems based on logical step-by-step processes.

Subjects in the study (Jacobsen, 1993) were 54 top-level managers and executives (44 men and 10 women) with a mean age of 37.8 years. Forty-two of the participants held bachelor's degrees, and fifteen possessed graduate

degrees. Each participant was required to complete both the MBTI (Form G) and the KAI. Continuous scores were derived for each subjects' MBTI preferences, while scores for the three dimensions of the KAI (originality, efficiency, and group rule conformity) were also computed. High KAI scores associated with Innovators. Conversely, low scores represented Adapters. A theoretical mean of 96 was established for all KAI scores.

Jacobsen (1993) proposed two hypotheses to the study. The first hypothesis stated that US managers participating in the study would tend to be more Innovative than the general population. The second hypothesis stated that the subjects' KAI styles and MBTI scores on iNtuition and Perceiving would show significant correlation when compared both separately and together.

KAI scores for all subjects resulted in an average of 103.19 (N=54). Male subjects' scores resulted in a mean of 107.00 (N=44), while women subjects' scores averaged 97.10 (N=10). These results supported the first hypothesis (Jacobsen, 1993). Jacobsen (1993) also found a significant positive relationship between KAI scores and subject age ($r = .43$, $p < .001$). When compared together, subjects were more Innovative than the general population. There was, however, a significant positive relationship between Innovation style preference and the iNtuition and Perceiving preferences of the MBTI. Jacobsen (1993) alluded that MBTI iNtuition, Thinking, and Judging types tend to gravitate towards management occupations. In this study,

(Jacobsen, 1993) 17 subjects were typed as STJ, and 14 subjects were types as NTJs (N=54). In all, 57.4% of the subjects were typed as TJs.

Further research on the relationships between KAI style and MBTI creativity, was conducted by Gryskiewicz and Tullar (1995). The purpose of the study (Gryskiewicz & Tullar, 1995) was to determine if middle-level managers indicated a preference for iNtuition and Thinking (N-T) as top-level managers had done in previous studies. Fifty-one middle-level managers (45 men, 6 women), with a mean age of 38 years and concurrently enrolled in a Program for Management Development at the University of North Carolina at Greensboro, were administered the KAI and the MBTI (Form G).

Results of the study contrasted the purpose (Gryskiewicz & Tullar, 1995) and revealed a predominance of STJs compared to all other type preferences. There was, however, no significant dominance of Sensing (53%) over iNtuition (47%). An overwhelming 96% of the subjects were typed as Thinking, while Judging types (67%) vastly outnumbered Perceiving types (33%). Each of these findings agreed with prior studies cited by Gryskiewicz and Tullar (1995).

In terms of the relationship between the two surveys, the KAI significantly correlated with both the S-N and the J-P dimensions of the MBTI ($r = .41$, $p < .001$, for both). Oddly, the S-N and J-P dimensions were both found to share more common variance with the corresponding scale of the KAI than they did with each other. According to KAI scores, 65% of the subjects were Innovators and 35% were Adapters. A similar study conducted by Carne

and Kirton (1982), and cited by Gyskiewicz and Tullar (1995), discovered a significant correlation between KAI Innovative creativity style and the N and P preferences of the MBTI. The results of Gyskiewicz and Tullar (1995) agreed with this correlation.

Short and Grasha (1995) examined the relationship between MBTI personality preferences, common stresses, and coping strategies. Both Form G of the MBTI and the Holistic Stress Test (HST), a 185-item, self-report inventory, were administered to 252 first level Research and Development Managers (76% men, 24% women) from June 1988 to November 1991. Prior to the collection of data, Short and Grasha (1995) formulated 25 predictions regarding the conceptual link between the MBTI scales and the personality tendencies, the source of stress, and the cope strategy sub scales of the HST.

Using continuous scoring methods for both inventories, preliminary data analyses revealed no statistically significant variations based on gender for either. Once the data were pooled for further analyses, Short and Grasha (1995) positively identified 13 of the 25 original predictions. MBTI preferences for Extroversion were associated with high degrees of sensation seeking, internal locus of control, and assertiveness. Conversely, Introversion preferences were related to social stress. Subjects' preferences for iNtuition proved to be linked with sensation seeking tendencies and internal locus of control. Thinking orientation reflected Type A behavior, assertiveness, and perceptions of problem solving and decision-making skills. Finally, subjects' typed as Judging reported better time management abilities, while Perceiving

typed subjects were determined to be sensation seekers (Short & Grasha, 1995).

Short and Grasha (1995) noted absences of relationships between Extroversion and social hardiness, Feeling and social hardiness, as well as, Thinking and Judging scales to Type A-B behavior. The authors believed that the most notable absence was a lack of correlation between any MBTI dimension and the work stress sub scale of the HST. The authors suggested that the MBTI was a better predictor of cope strategies of stress than it was a predictor of sources of stress. According to Short and Grasha (1995), the failure to unveil the remaining 12 predictions was due to the MBTI's objective to measure cognitive style and a person's intentions to behave, while the HST measures actual behaviors.

While research conducted on Myers-Briggs typologies of American managers has long revealed a predominance of Thinking-Judging (T-J) types in all organizational levels, Reynierse and Harker (1995) used organizational structure as the focus of their research on line and staff managers. The purpose of the study (Reynierse & Harker, 1995) was to advance research on the J-P dimension of the MBTI. The study was comprised of 427 executives and managers of Fortune 500 manufacturing companies, banks, and utilities representing several levels of management. Line managers numbered 237 subjects, and there were 190 staff managers. Either Form F or Form G of the MBTI was administered to each subject. The principal data were frequencies and percentages of types (Reynierse & Harker, 1995). Chi-squares and SRTT

analyses were calculated independently, while type distributions of both groups were compared directly.

Reynierse and Harker (1995) discovered that line managers were more often Extroverted (68.8%) than Introverted (31.2%), in contrast to staff managers of which Es were only marginally higher in frequency. Sensors outnumbered iNtuitives for line managers, yet the reverse was true for staff managers. Both line (90.3%), and staff (86.8%), managers overwhelmingly were rated as Ts. Staff managers had only a slightly higher preference for Feeling. Finally, both groups of managers (86.1% of line managers and 67.4% of staff managers) exhibited a clear preference for Judging. Overall, ESTJs and ESFJs were more represented as line managers compared to staff managers, and 80.2% of line managers and 62.6% of staff managers were typed as TJs (Reynierse & Harker, 1995).

Four major findings were addressed in this study. First, four typologies (ESTJ, ENTJ, ISTJ, and INTJ) predominated in both managerial groups. Second, the higher incidence of Extroversion for line managers indicated they would be better suited for customer or public service positions. Next, line managers were also more frequently typed as Sensors meaning that they often work in a day-to-day environment where the same directives apply to each situation. Meanwhile, staff managers were more frequently iNtuitive types indicating they work in high levels of uncertainty. This would require staff managers to utilize intuitive skills on a daily basis, and they should be more often typed as N. Finally, although the J preference was dominant for

both groups, staff managers had a higher incidence for P. Reynierse and Harker (1995) explained this to mean that the ever-changing work environment for staff managers would require their preferences to be more adaptive and flexible.

Believing there was a connection between the two variables, Nordvik and Brovold (1998) hypothesized that persons would differ in their preferences of leadership tasks based on their personality. A group of 1040 Norwegian adults (age range=18-79 years; mean age=40.3 years), including 821 men and 219 women, completed the MBTI (Form G) and the Production Administration Enterprise and Integration (PAEI) Inventory. The PAEI questionnaire was created by Nordvik and Brovold (1998) such that each item described differential preferences toward four leadership tasks, including: Production, Administration, Enterprising, and Integrating.

Although the scope of the study (Nordvik & Brovold, 1998) focused on reliability and validity of the PAEI, factor analysis showed that subjects who reported a preference for Administration (organizational structure, work systems, etc.) typically rejected Enterprising (organizational development, future changes, etc.), and vice versa (Nordvik & Brovold, 1998). This polarity was reflected in the MBTI's S-N and J-P dimensions. For example, those subjects that preferred Administration tasks tended to be typed as SJs. Conversely, those who preferred Enterprising were more often typed as iNtuitives and preferred Perceiving to Judging.

Swanger (1998) examined the relationship between Temperament and unit profitability among 195 quick-service chain restaurant managers. Three levels of unit profitability (low, medium, and high) served as dependent variables, and roughly one-third of the subjects represented each level. The independent variable in the study was each subject's four-dimensional temperament as determined by the KTS. To measure the relationships between the variables, Swanger (1998) used Multiple Classification Analysis. Chi-square correlation ($p = .10$) analyses were subsequently used to determine the relationship between the three most frequently typed temperament styles and the three levels of profitability.

Temperament results of the study (Swanger, 1998) showed that five types (ESTJ=28; ESFJ=24; ISTJ=11; ISFJ=9; and XSFJ=8) accounted for 80% of the subjects' types. In all, 84.6% ($n=165$) of the 195 subjects were labeled as SJs. ESTJs, by result of Chi-square analysis, were discovered to have performed substantially above the 16.2% profitability mean (Swanger, 1998).

Of the 195 participants, however, only 69 managers answered the item on unit net profit/loss. Thus, Swanger (1998) questioned the accuracy of the reported profitability data. Profitability results did indicate that gender was the only variable that had a significant correlation with unit profitability. Women reported an average 5.79% margin above the mean (16.2%), while men managers only averaged 14.23% unit profitability (Multiple Classification Analysis).

Swanger (1998) suggested that ESTJ managers might be the best choices in occupations where profit margin is essential for success. Due to the lack of statistical support in the study, there was no concrete evidence for this conclusion, however. The data collected by Swanger (1998), simply alluded to this conclusion.

Summary of Studies in Management

As Bridges and Roquomore (1996) stated, management is the utilization of other persons to attain predetermined organizational objectives. There are generally three levels of management, and while each differs significantly from the other two, distinguishing between the three can be somewhat difficult. In intercollegiate athletics, for example, an AD may be considered either top- or middle-level management depending on their overall role in the organization. Some ADs have supreme control in their department, and others do not. In this review, the studies analyzed management occupations at one or more levels for the purposes of determining personality types and temperament styles of the managers.

Many consistent and conflicted results alike were present in this review. Initially, Jacobsen's (1993) study yielded positive relationships between Innovative preferences of the KAI and intuition preferences on the MBTI. Thus, Jacobsen (1993) concluded that MBTI N types tend to gravitate toward management positions. Since there is no temperament style any better than the others, this conclusion could be considered accurate, yet other researchers (Johnson, 1989; Gryskiewicz & Tullar, 1995; Reynierse & Harker,

1995; Nordvik & Brovold, 1998; and Swanger, 1998) discovered a predominance of SJ temperaments in their management studies. In fact, there were four MBTI or KTS types (ESTJ, ISTJ, ENTJ, and INTJ) that accounted for the majority of subjects (Gryskiewicz & Tullar, 1995; Short & Grasha, 1995; Reynierse & Harker, 1995; and Swanger, 1998). SJ temperaments were the most numerous, with NTs, NFs, and SPs following, in descending order. Overall, there were very few SP types. These results also agreed with recent studies by Keirsey and Bates (1984) and Kroeger and Thuesen (1992).

In terms of demographics, the subjects were mostly managers at middle- and top-levels. Therefore, the subjects were educated in some advanced capacity. Nearly every subject had at least a Bachelors degree, but the majority of subjects had earned at least a Masters degree. The results of the included studies may have been skewed by the notion that persons with higher education levels would be more inclined to return surveys to be analyzed for research (Johnson, 1989; Jacobsen, 1993; Gryskiewicz & Tullar, 1995; and Swanger, 1998). However, an advanced college degree may have been required for these individuals to achieve such a high position within their organization.

Intercollegiate Athletics Directors

Literature reviewed in this section pertains to administrative occupations in intercollegiate athletics. This section is divided into two headings (a) career patterns of athletics directors, and (b) studies of character, personality, and temperament.

Career Patterns of Athletics Directors

Cuneen and Sidwell (1994) attempted to resolve the myth that female sport management majors do not apply for management positions in equal numbers to their male counterparts. Both male (n=122) and female (n=80) subjects answered either "yes" or "no" as to whether they intended to apply for certain job openings listed in The Chronicle of Higher Education, The NCAA News, The ACSM Newsletter, and AAHPERD Update publications. The sample of subjects was stratified by three sub categories: (a) Exercise and Sport Sciences (including fitness and athletic training), (b) Sport Information Management (including sport marketing and sport information), and (c) Sport Administration and Management (including sport enterprise). Of the 182 subjects surveyed in the study (Cuneen & Sidwell, 1994), there were 80 seniors, 61 juniors, 40 sophomores, and 22 first year students.

Data were analyzed in two ways. First, all "yes" responses were treated as proportions rather than real numbers to offset the unequal numbers of men and women that participated in the study. Next, arcsine transformations were applied to the proportions in order to accommodate a MANOVA on the proportional differences (Cuneen & Sidwell, 1994).

Results of the study (Cuneen & Sidwell, 1994) indicated that both females and males would apply for those jobs advertised in their specialized field, plus others listed in other categories. In the sport administration and management category, a greater proportion of males to females indicated their intentions to apply for those jobs. Males also exhibited a greater propensity

than females for application of jobs listed outside their specialized area. However, the proportions of females who intended to apply for jobs listed in any of the categories were not significantly lower than the proportions of males. Cuneen and Sidwell (1994) performed a MANOVA to determine if there was a function between gender and job type. Wilke's lambda criterion determined there was no significant function present ($F = 1.71$; $p < .134$). Conversely, MANOVA results assessing proportional differences as a function of gender and academic specialty were deemed significant ($F = 19.9$; $p < .0001$) by Wilke's lambda criterion (Cuneen & Sidwell, 1994).

The authors (Cuneen & Sidwell, 1994) concluded that their results contradicted the myth that females do not pursue management positions as often as males in sport-related occupations. Furthermore, both sexes stated their willingness to apply for management positions outside of their individual specialization. According to Cuneen and Sidwell (1994), the myth may be reinforced by the notion that, "women apply, but...are not seriously regarded as managerial applicants" (p. 843). Thus, women are not hired as often as are men in managerial capacities.

As the scope of intercollegiate athletics changes, so change the needs of the athletics department. Berg (1990) believed that managerial expertise and communication skills have become more essential for an AD than their popularity or their notoriety. In the past, ADs were often hired former coaches due to their celebrity status, and that process pleased the school's boosters and fans. However, athletics directors are not always bred from the

background of college athletics. Many individuals educated in sport management and many corporate leaders are gravitating to AD positions. According to Berg (1990), no career path of an AD is the best path to take as long as the individual possesses the correct attributes; those being: good business sense, excellent management skills, and strong communication skills.

Fitzgerald, Sagaria, and Nelson (1994) challenged the traditional career patterns of athletics directors in a study conducted on 200 ADs representing NCAA Division I (n=64; 62 men, 2 women), Division II (n=57; 43 men, 14 women), and Division III (n=79; 38 men, 41 women) affiliated institutions. Each subject was administered a 23-item, modified version of Moore's Leaders in Transition (1981). Moore's survey assessed 5 categories (formal education, athletics participation and work history, professional development, job change, and biographical information) important to the traditional career of an AD. Four aspects of each subject's prior professional positions were analyzed including (a) position title, (b) name of institution, (c) the number of years in that position, and (d) NCAA division of the institution.

According to Fitzgerald, Sagaria, and Nelson (1994), the conventional career pattern for an AD begins as a student-athlete, progresses to coaching in both high school and college athletics, advances to an associate AD position, and culminates with a promotion to AD. Results of the study (Fitzgerald, Sagaria, & Nelson, 1994) revealed that 160 of the 200 subjects (80%) were college athletes, 130 subjects had (65%) coached at the collegiate

level, 79 subjects (39.5%) served as associate directors of athletics, and 60 subjects (30%) coached at the high school level. In all, 189 subjects (94.3%) had experienced a linear progression that mirrored the traditional pattern. Eleven ADs (5.5%) perfectly matched the traditional pattern. Ten of the 11 exactly matched ADs were men (Fitzgerald, Sagaria, & Nelson, 1994). Thus, the overwhelming majority of the subjects followed the sequential advancement to their current positions.

Overall, NCAA Division I ADs were most likely to have progressed in the normative fashion. Fitzgerald, Sagaria, and Nelson (1994) explained that this result was due to a Division I institution's tendency to promote their own employees, rather than hire someone from outside the program. For example, an associate AD at a D-I school is usually a specialist in some area such as marketing, public relations, sports information, etc., while a smaller college or university AD often must combine many of these skills. Fitzgerald, Sagaria, and Nelson (1994) further suggested that prior coaching experience has traditionally benefited an AD from the standpoints of visibility and organizational skills. Yet, it is implied that the future career patterns of intercollegiate ADs may change with the changing climate of collegiate athletics (Fitzgerald, Sagaria, & Nelson, 1994).

Quarterman (1998) surveyed intercollegiate athletics conference commissioners and executive directors on the amount of time and effort they utilized toward management and leadership skills in their positions. A two-part questionnaire that included demographics information and a 5-point Likert

scale with answers ranging from "least time and effort spent" to "most time and effort spent" was mailed to 94 commissioners. Eighty-three demographics responses and 70 management and leadership questionnaires were returned for inclusion in the study. Mean scores were calculated to determine the perceptions of the subjects.

Management (conceptual, human relations, technical, negotiating, political, and analytical) skills means scores ($M=3.61$, $SD=.680$) were significantly higher than mean scores for leadership (empowerment, visioning, self-understanding, value congruence, anticipatory, and intuitive) skills ($M=3.28$, $SD=.636$) (Quarterman, 1998). The T-statistic value ($T=5.109$, $p=.0001$) was deemed much higher than what would be expected by chance.

Commissioners participating in the study (Quarterman, 1998) rated management skills of human relations ($M=4.17$, $SD=.98$), conceptual ($M=3.64$, $SD=.98$) and political ($M=3.54$, $SD=1.07$) required the most time and effort. In addition, the subjects rated leadership skills of empowerment ($M=3.64$, $SD=.98$) and vision ($M=3.55$, $SD=.92$) required the most time and effort. Only two of the twelve skills were rated below the Likert scale midpoint ($M=3.00$). Quarterman (1998) indicated that management skills required more time and effort than did leadership skills, but that management and leadership should be viewed as an integrative system, and athletics administrators would benefit from their own enhancement of both types of skills.

Studies of Character, Personality, and Temperament

Branch (1990) examined self-reported leadership behaviors of ADs and perceptions of AD leadership behaviors reported by associate ADs. The study was designed to promote better understanding of leadership in intercollegiate athletics and to determine there existed a linear relationship between Consideration (C) and Initiating Structure (IS) as leader behaviors and intercollegiate athletics organizational effectiveness.

Two separate sample groups were used in the study. Group A consisted of 78 respondents out of 105 current NCAA Division I ADs, and Group B was comprised of 87 associate ADs, one each from the same 105 Division I programs. ADs in Group A provided a self-perception of their leadership behavior, while ADs in Group B assessed their perceptions of the leadership behavior and effectiveness of their super ordinates. Three questionnaires were utilized in the study (Branch, 1990) to obtain the information from both groups. The Perceived Athletic Organizational Effectiveness Index was completed by all Group A directors, while Group B associates completed two versions of the Leader Behavior Description Questionnaire (LBDQ) Form XII.

SPSS (x) regression logically ordered leader behavior results, and F-tests ($p = .01$) evaluated the regression model. Each behavioral dimension was analyzed to determine its individual contributions to the effectiveness of the athletics organization. In addition, pairs of behavioral dimensions were

further analyzed for assessment of their combined effectiveness (Branch, 1990).

Results of the study (Branch, 1990) showed that athletics directors rated Initiating Structure (IS) ($m = 40.61$) as the best predictor of organizational effectiveness and rated Consideration (C) ($m = 38.87$) as the next best predictor. The perceptions of associate ADs were substantially lower for both IS ($m = 38.67$) and C ($m = 35.45$). This result indicated the ADs believed their leadership behaviors to be more effective than Associates perceived them to be. Pearson product-moment correlation coefficients revealed a moderate correlation between IS and organizational effectiveness ($r = .38$) based on AD PAEI scores. Correlation matrix found a high correlation ($r = .88$) between the interactive predictor and Consideration (C) as perceived by ADs (Branch, 1990). Of the six predictors of effectiveness, only IS, as perceived by ADs, significantly contributed ($r = .38$; $F = .0006$, $p < .01$) to athletics organizational effectiveness (Branch, 1990).

Branch (1990) concluded these results were useful for ADs to create a harmonious workplace. Specifically, the results would positively influence stronger relationships between ADs and their associates or assistants. Many associate ADs may view their superiors with cynicism because their own personal advancement is controlled by the AD. Branch (1990) indicated that effective athletics organizations are led by ADs who are more dedicated toward goal and task accomplishment than to improving interpersonal relationships in the workplace.

Ware (1984) examined six personality traits of intercollegiate head coaches. The purpose of the study was to determine the relationships that exist between personality traits including neurotic tendencies, self-sufficiency, extroversion/introversion, dominance/submission, self-confidence, and sociability and effective leadership. Twenty-five ADs representing NCAA Divisions I-A, I-AA, II, and III were mailed a packet, which contained 5 identical inventories. One inventory per subject was designated for completion by a selected program's head football coach, men's head basketball coach, head baseball coach, and two non-revenue spring sport head coaches.

Ware (1984) received 81 completed inventories from coaches who agreed to participate in the study. Once two of the inventories were eliminated from inclusion due to incomplete data, the remaining 79 surveys were analyzed using a one-way ANOVA to evaluate differences among the subjects in any of the six personality traits. Multiple-regression was used to compute a standard error of the mean designed to separate the subjects into two groups based on won-loss ratio. Subjects that scored above the mean were labeled "more successful", while subjects that scored below the mean were labeled "less successful" (Ware, 1984).

Results of the study (Ware, 1984), revealed no significant differences, yet, "more successful" coaches scored higher in neurotic tendencies ($M=25.20$, $SD=24.75$ to $M=20.44$, $SD=18.80$) and sociability ($M=20.20$, $SD=21.80$ to $M=40.45$, $SD=26.78$) than "less successful" coaches. "Less

successful” coaches, conversely, exhibited greater self-sufficiency ($M=60.89$, $SD=25.94$) than “more successful” coaches ($M=50.27$, $SD=22.60$).

Ware (1984) concluded that “less successful” coaches may be more introverted than “more successful” coaches due to their self-sufficient nature. Furthermore, “more successful” coaches may likely be more extroverted as evidenced by their higher scores on sociability. Successful coaches reported themselves to be more domineering, as well, and this fact was construed by Ware (1984) to be another example of their preference for extroversion. Finally, “more successful” coaches reported an overall willingness to experiment and take risks when problem solving. The principle implication of this study, according to Ware (1984), is that athletics administrators may wish to evaluate certain personality traits of a coaching candidate during the hiring process. It seems that success on the field may be related to a coach’s personality.

Holmes (1993) conducted a study of personality type on ADs in NCAA Division II, NCAA Division III, and the NAIA. The purpose of the study was to compare the personality types, as determined by the MBTI, of both men and women athletics directors. Seventy-eight men ADs (D-II=12, D-III=41, and NAIA=25) and seventy-three women ADs (D-II=18, D-III=38, and NAIA=17) participated in the study. In all, the subjects averaged 45-54 years of age with 5-9 years served at their current institution. The majority of the subjects also held at least a master’s degree (Holmes, 1993). In three separate hypotheses, Holmes (1993) proposed there would be no differences in

personality types for men, women, and both men and women across the three divisions of athletics surveyed.

There were no statistically significant differences in personality type for any of the subject groups or the divisions (Holmes, 1993). Two typologies, ISTJ (23.8%) and ESTJ (18.5%) accounted for the majority of subjects. Women were more often typed as ISTJ, while men were more frequently ESTJ. By division, ISTJs dominated NCAA D-II and D-III males and NCAA D-III and NAIA females. Conversely, NCAA D-III females and NAIA males were predominantly ESTJ. In terms of two-lettered temperament, SJs (58.3%) represented the overwhelming majority, followed by NTs (25.2%), NFs (9.9%), and SPs (6.6%).

Summary of Literature on Intercollegiate Athletics

The changing landscape of intercollegiate athletics in the last 20 years has perpetuated the need for better-trained athletics directors. Traditionally, ADs were groomed for their positions through a combination of athletics participation and coaching experience (Berg, 1990 and Fitzgerald, Sagaria, & Nelson, 1994). At some point during their climb of the career ladder, many ADs also served as an associate (Fitzgerald et al, 1994). However, the hire of an AD based on her/his celebrity status does not benefit the athletics program as it once did. Today's AD must possess some degree of business acumen (Berg, 1990) and mixed with both management and people skills (Quarterman, 1998).

Coaches in collegiate athletics are not however, excluded from possible hire as an AD. Ware (1984) discovered more successful coaches, based on won-loss record, were more Extroverted and iNtuitive than less successful coaches, who were more Introverted and Sensing. Holmes (1993) concluded there were no significant differences in personality types of men ADs and women ADs in NAIA, NCAA Division I, and NCAA Division II athletics programs. Resembling other personality and temperament studies included in this review, Holmes (1990) discovered that ESTJ and ISTJ types significantly outnumbered all other typologies.

As can be seen in this review of literature, intercollegiate athletics is a largely untapped well of research possibilities. Athletics directors, associates, coaches, and support staff personnel alike, are worthy of research efforts in these changing times. Effective communication among the aforementioned persons, and others, who comprise an athletics staff, is essential to the healthy growth of intercollegiate athletics. The study that follows, attempts to provide those individuals with information that can assist in that regard.

CHAPTER 3

METHODOLOGY

The purpose of this study was to ascertain whether athletics directors at NAIA and NCAA Division I, II, and III institutions possess similar temperaments. Through administration of the Keirsey Temperament Sorter (Keirsey & Bates, 1984), each AD was assigned a four-lettered representation of one of sixteen possible personality types. Furthermore, a two-lettered temperament type was also assigned to each subject. To further assess the similarities and/or differences in the typologies, the eight categorical scores were examined to determine the strength of preferences of the subjects' types. Where there were differences in the categorical scores and the temperaments of the subjects, this study attempted to discover in what dimensions of the KTS the differences occurred. The final purpose of this study was to uncover any relationships between the level of intercollegiate athletics affiliation of an institution and the temperament of the AD controlling that school's athletics department. All procedures used in this investigation and described in this chapter include (a) selection and description of the subjects, (b) selection of the instrument and (c) data collection and scoring.

Selection and Description of the Subjects

For the purposes of this study, athletics directors were defined as persons who control the daily operations of an entire intercollegiate athletics department, including both men's and women's varsity sports programs, at an accredited four-year senior college or university. The subjects used in this

study were athletics directors who possess this control in a program, which maintains continuous membership status within either the NAIA or the NCAA governing bodies of intercollegiate athletics. In addition, the college or university whose AD was selected to participate in this study was located in the Southeastern region of the United States. The researcher chose eleven states for inclusion in the study. They were: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

Selection of the subjects was initiated by obtaining The 1996-97 National Directory of Collegiate Athletics both men's and women's editions. These publications provided complete listings of current Athletics Directors, addresses, and phone and fax numbers at all intercollegiate affiliated member institutions. From these directories, a master list of all colleges and universities meeting the necessary criteria for selection was compiled. This process resulted in 295 institutions and their respective ADs eligible for selection. Ninety-six schools were affiliated with NCAA Division I. Eighty-six schools were current members of NCAA Division II. NCAA Division III provided thirty-four possibilities, and seventy-nine institutions represented the NAIA.

As a means of stabilizing the characteristics for each director's job regardless of affiliation level, all institutions operating separate athletics departments for men and women were eliminated from possible inclusion in the sample. From the original list of institutions, there were nine such schools,

two in NCAA Division I, one each in NCAA Divisions II and III, and five from the NAIA. Furthermore, two institutions that offered only men's and no women's athletics were excluded from possible selection, and one other school offered only varsity women's athletics was also discarded. Two of these institutions were members of NCAA Division I, while the other represented NCAA Division II. Once these possibilities were disqualified from the preliminary sample, the total number of eligible ADs was reduced to 283. NCAA Division I yielded 92 possibilities. NCAA Division II comprised 84 schools. NCAA Division III provided 33 institutions, and 74 NAIA affiliates were included.

The number of selected participants contacted for inclusion in this study totaled 100 athletics directors. Each of the four separate levels of athletics comprised twenty-five percent of the one hundred athletic directors selected to participate in the study ($n=25/\text{group}$). A statistical calculator was used as the device for randomly selecting the 100 participants. There resulted 89 men and 11 women ADs in the sample. During May 1998, the selected participants were mailed a packet, containing (a) a cover letter which introduced the nature of the investigation and provided instructions for participation (Appendix A), (b) a demographics questionnaire (Appendix B), (c) a copy of the 70-item Keirsey Temperament Sorter with instructions (Appendix C) and (d) a self-addressed stamped return envelope. Consent on the part of the subjects to participate was provided through their return of the completed demographics

questionnaire (Appendix B) and/or the completed Keirsey Temperament Sorter (Appendix C).

Selection of the Instrument

The information pertaining to the instrument used in conducting this research is presented in this section. This section includes the initial selection and subsequent disqualification of the Myers-Briggs Type Indicator, the model instrument from which the survey utilized in this study was derived, and the Keirsey Temperament Sorter, the actual instrument of measure selected by this investigator.

Selection of the Myers-Briggs Type Indicator

A search was conducted for an instrument that would meet the needs of the study. Specific criteria were determined to assist in the selection of that instrument. Initially, the instrument had to be a self-report inventory as the researcher was not to have personal contact with the subjects. The instrument was required to be of valuable use in psychological testing of personalities and temperaments, and it had to be acceptable for personality and temperament assessment in fields of management, leadership, or administration. It should not require a substantial amount of time to complete. Finally, the instrument had to be regarded as a reliable and valid measure of personality types and temperaments.

After reviewing the procedures by which other studies of this nature have been administered, consulting with university psychology professors, as well as, discussions with several NCAA Division I athletics directors who have

taken personality type inventories in the past, the Myers-Briggs Type Indicator (MBTI) was selected. Unfortunately, after collaborating with several licensed psychologists, it was determined that the MBTI failed to meet three important factors in this study. First, the 30-45 minutes necessary to complete the survey seemed too long. Asking an unsupervised subject to devote at least a half an hour towards completing the Indicator seemed futile when the rate of return by the participants was critical to the success of the study. Secondly, the acquisition of all test materials required to administer the MBTI did not meet the financial restrictions of the study. Finally, the MBTI is an instrument that cannot be administered by anyone other than a certified professional (Tucker & Gillespie, 1993), of which this investigator is not. Instead, an instrument that would be considered a suitable substitute was sought.

Three forms of the Myers-Briggs are typically used for determining personality types. Form F, a 166-item inventory, is the version most commonly used by licensed psychologists. Form G, a more recent innovation, is a shorter and faster alternative consisting of 126 questions. The third form, the adapted 70-item Keirsey Temperament Sorter (Keirsey & Bates, 1984), was devised on similar principles as the MBTI and is the form administered in this study.

Selection of the Keirsey Temperament Sorter

Upon further research, the Keirsey Temperament Sorter was found to meet the same criteria previously set for the MBTI. Authors Keirsey and Bates (1984) devised the Sorter as a time saving alternative to the MBTI (Quinn,

Lewis, & Fischer, 1992). Many of the 70 questions in the Sorter mirror MBTI questions, and the overall format and scoring methods are the same in both instruments. Recent research also has produced favorable reliability and validity between the MBTI and the KTS (O'Brien, 1985; Quinn, Lewis, & Fischer, 1992; and Tucker & Gillespie, 1993).

In the Keirsey Temperament Sorter, like all other forms of the MBTI, the questions are set up in a forced-choice pattern. Only one of the two answers may be selected. Each scored item is weighted toward opposite poles and in favor of one of the eight preferences. To determine a person's type, points for each preference are summed, yielding eight numerical scores (Keirsey & Bates, 1984). The KTS contains 10 questions related to the Extroversion-Introversion scale, and in each of the other three indices (Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving), there are 20 questions. Score computation is performed by summing the total number of items answered in preference to one of the opposing poles. The two-letter Temperament is then derived either from a combination of the S-N and J-P scales or a combination of the S-N and T-F scales to produce a unique description of the individual's mental and emotional functioning characteristics (Keirsey & Bates, 1984).

Data Collection and Scoring

During the spring semester of 1998, a random sample selection of 100 athletics directors, at NAIA and NCAA institutions (n=25/group) geographically located in the southeastern United States, were mailed a packet of information explaining the study. The packet included a personalized cover letter which

introduced the purpose and the scope of the study, explained informed consent, and provided instructions (Appendix A), a demographics questionnaire (Appendix B), a photocopy of the 70-item Keirsey Temperament Sorter (Appendix C), and a self-addressed stamped return envelope.

All returned responses that were completed in their entirety were analyzed for use in the study. Demographics data were analyzed in three groups using frequencies, percentages and crosstabs. Computer software designed for scoring the KTS was used to determine the personality type and the strength of preference (raw scores) in all eight categorical scores for each subject. From the four-lettered personality type, the two-lettered temperament was then determined. Both personality types and temperaments were analyzed by frequencies, percentages, and crosstabs. Further analyses on types and temperaments included the calculation of means and standard deviations within each preference category. The eight categorical preferences were analyzed using one-way Analysis-of-Variance (ANOVA) to determine if differences existed by gender and/or by division of athletics. Student-Newman-Keuls were conducted as a post hoc test of possible differences in the eight preferences by division of athletics.

CHAPTER 4

RESULTS AND DISCUSSION

The purpose of this study was to ascertain whether athletics directors at NAIA and NCAA Division I, II, and III institutions possess similar temperaments. The instrument used to determine individual subjects' temperaments was the Keirsey Temperament Sorter (KTS). During the spring semester of 1998, 100 athletics directors, representing colleges and universities in the southeastern United States, were randomly selected to participate in the study. Each of the four divisions of collegiate athletics represented 25% of the total sample ($n=25/\text{group}$). All returned responses, completed in their entirety, were used to determine the results of the study.

All data obtained in this study were analyzed in three data groups. First, demographics of the subjects were analyzed, including: division of athletics, gender, age range, division of athletics where first AD position was obtained, number of years as an AD, number of years at current institution, education level, and specialized area of highest degree earned. For all returned demographics questionnaires, analyses were conducted using frequencies and percentages of responses, and calculation of means. Crosstabulation analyses were used to evaluate division of athletics and gender and the relationships these two variables had with the other demographics categories. Next, KTS results were analyzed in two categories. Initially, each subject was assigned a four-dimensional

personality type resulting from her/his preferences toward one pole or the other in the KTS's four indices. Personality types were assessed using the calculations of type frequencies, mean scores in each category, strength of preference in each category, and crosstabulation analysis. Secondly, a two-lettered temperament style, representing the original four-lettered typology, was assigned to each subject to calculate frequencies and percentages of temperaments and crosstabulation analysis. Finally, the temperaments of the subjects were analyzed for comparison both by division of athletics and gender.

All analyses of demographics, personality types, and temperament styles were performed in three ways (a) group data for all subjects, (b) group data by division of athletics, and (c) group data by gender. All results and discussions presented in this chapter are categorized into two headings (a) Demographics Relationships and (b) Temperaments of Athletics Directors. Each heading is further divided into two sections, a results section and a discussion section.

Demographics Relationships

This section includes descriptions of the results and a discussion of those results based on the outcomes of analyses on the demographics questionnaire.

Results:

The results of the demographics questionnaire completed by each subject were calculated using SPSS (Statistical Package for the Social

Sciences). A 54 percent rate of return was achieved on the demographics questionnaire, with 43 surveys returned by men and 11 surveys returned by women. There were near equal numbers of respondents that represented each of the four levels of collegiate athletics (n=12 for NCAA D-I; n=15 for NCAA D-II; n=13 for NCAA D-III; and n=14 for NAIA) used in the study (Table 2). Subjects between the ages of 40-59 completed and returned 74% of the questionnaires. ADs with less than 15 years experience accounted for 77.8% of the responses and 81.5% of the ADs have been at their current institution less than 15 years. In terms of education level, 83.3% of the ADs possessed at least a Masters degree. In addition, nearly half of the subjects' highest earned degrees were specialized in either education or sport management related fields.

Several demographic relationships were further analyzed using SPSS Crosstabs. Division of athletics and gender were compared with age, division of first AD position, number of years as an AD, number of years at current institution, and education level, in order to determine any similarities or differences among the subjects.

Analyses of demographics, on the basis of intercollegiate division of athletics, were calculated using SPSS Crosstabs. ADs currently employed in each NCAA division were slightly older than NAIA ADs (Figure 1). Mean age for NCAA D-I, D-II, and D-III ADs, collectively, was in the 50-59 year range, while NAIA directors averaged between 40-49

Table 2: Summary of response frequencies for both the demographics questionnaire and the Keirsey Temperament Sorter based on division of athletics.

	MAILED	DEMO RET	M	W	KTS RET	M	W
NCAA I	25	12	12	0	11	11	0
NCAA II	25	15	10	5	17	12	5
NCAA III	25	13	10	3	14	11	3
NAIA	25	14	11	3	14	11	3
TOTALS	100	54	43	11	56	45	11

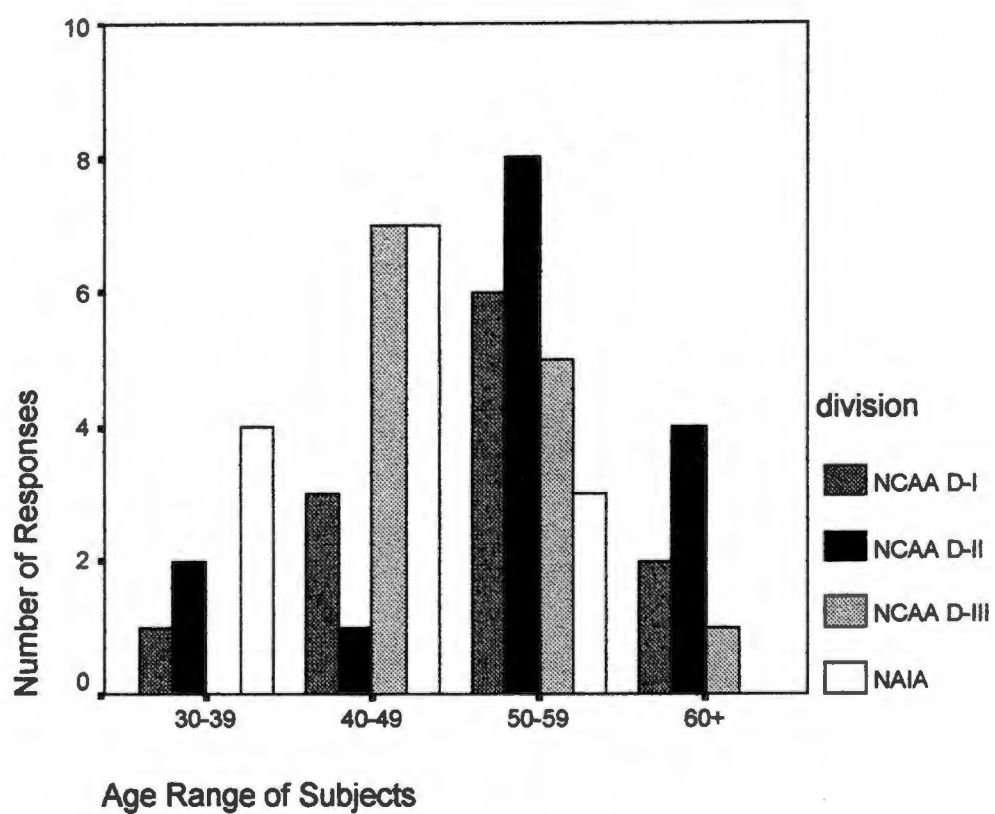


Figure 1: Number of subjects in each age range by division of athletics.

years of age. Overall, NCAA D-II ADs were the oldest of any individual division.

Slight differences also existed between NCAA and NAIA ADs based on the number of years as an AD (Figure 2). NCAA Division I ADs had served the most years in the profession, while NCAA Division III ADs ranked the second most years. NAIA ADs had served the least number of years. Only one NAIA AD reported more than 14 years of experience. Most ADs in all divisions had obtained their initial AD position within the same division where they are currently employed (Figure 3). One-third of D-III subjects had inaugurated their AD career in a different level institution. Furthermore, NCAA D-II and D-III ADs had remained at their current institutions longer than had NCAA D-I or NAIA ADs (Figure 4).

Similar results in each division were obtained for education level (Figure 5). The majority of subjects possessed at least a Master's degree (61%), while an additional 12% of subjects had earned a doctorate. Only 9% of ADs reported no post-baccalaureate education. Each individual division included relatively equal numbers of ADs with baccalaureate, Master's and doctoral degrees (Figure 5).

SPSS Crosstabs were used to analyze demographics with respect to gender, as well. A total of 54 demographics questionnaires were returned including 43 men (79.6%) and 11 women (20.4%). The original sample ($n=25/\text{group}$) of NCAA Division I ADs contained no women, thus, all 11 NCAA D-I respondents were men (Figure 6). Women respondents

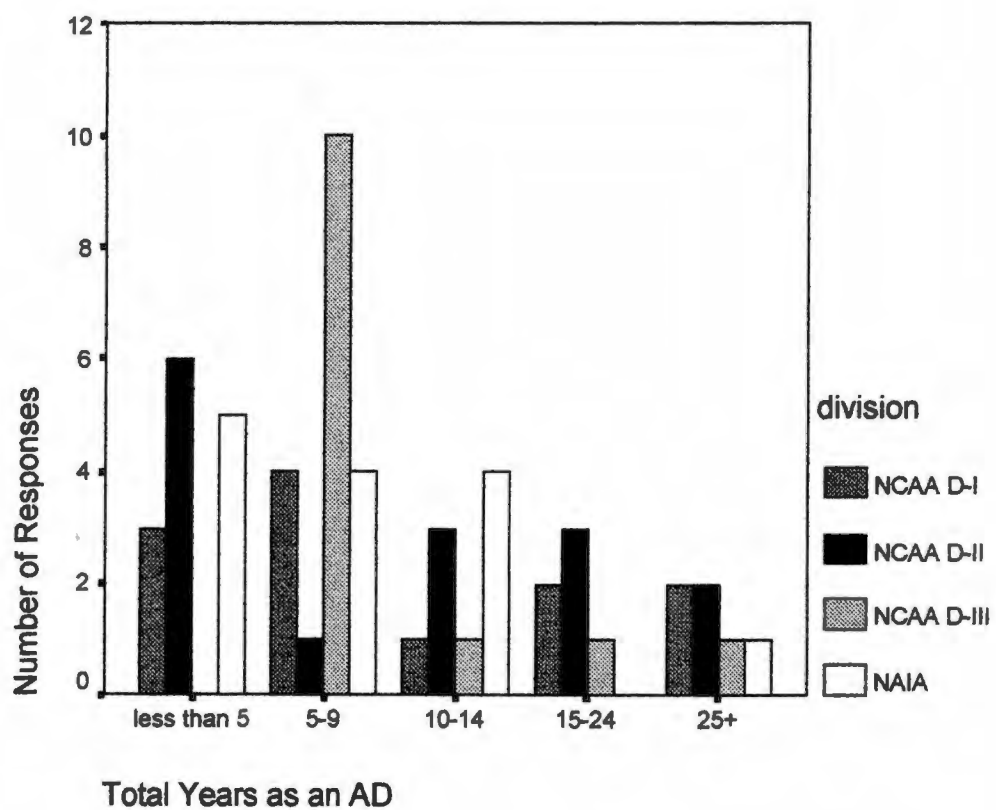


Figure 2: Comparison of the number of years as an AD by division of athletics.

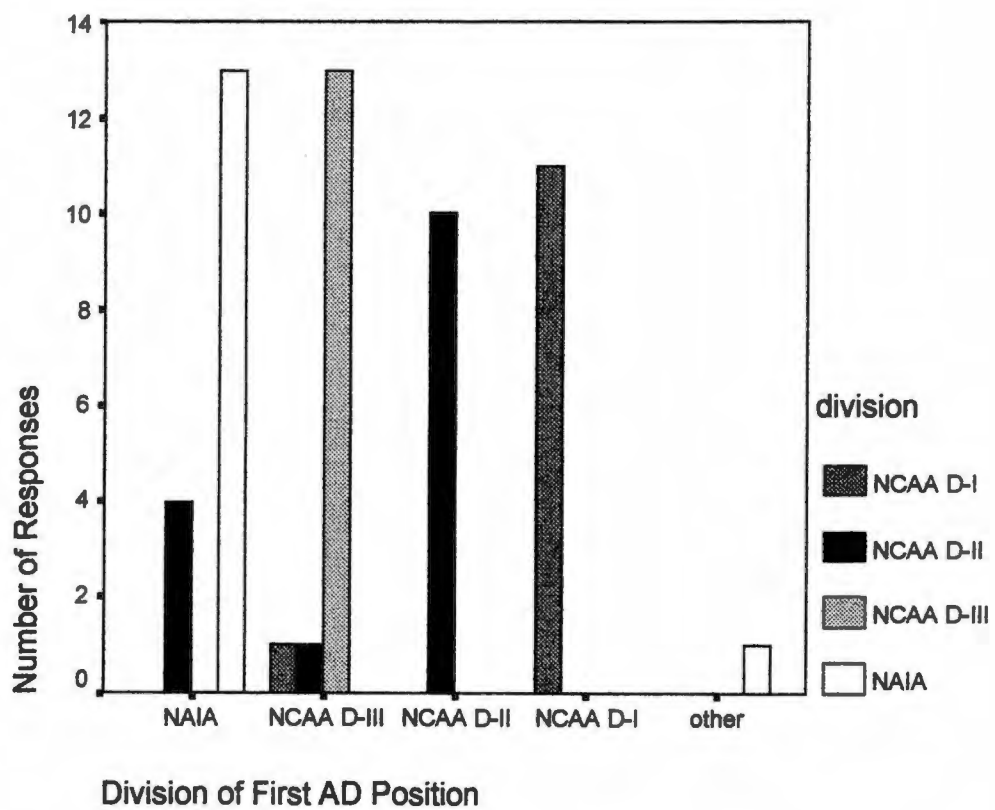


Figure 3: Comparison of level of first AD position by division of athletics.

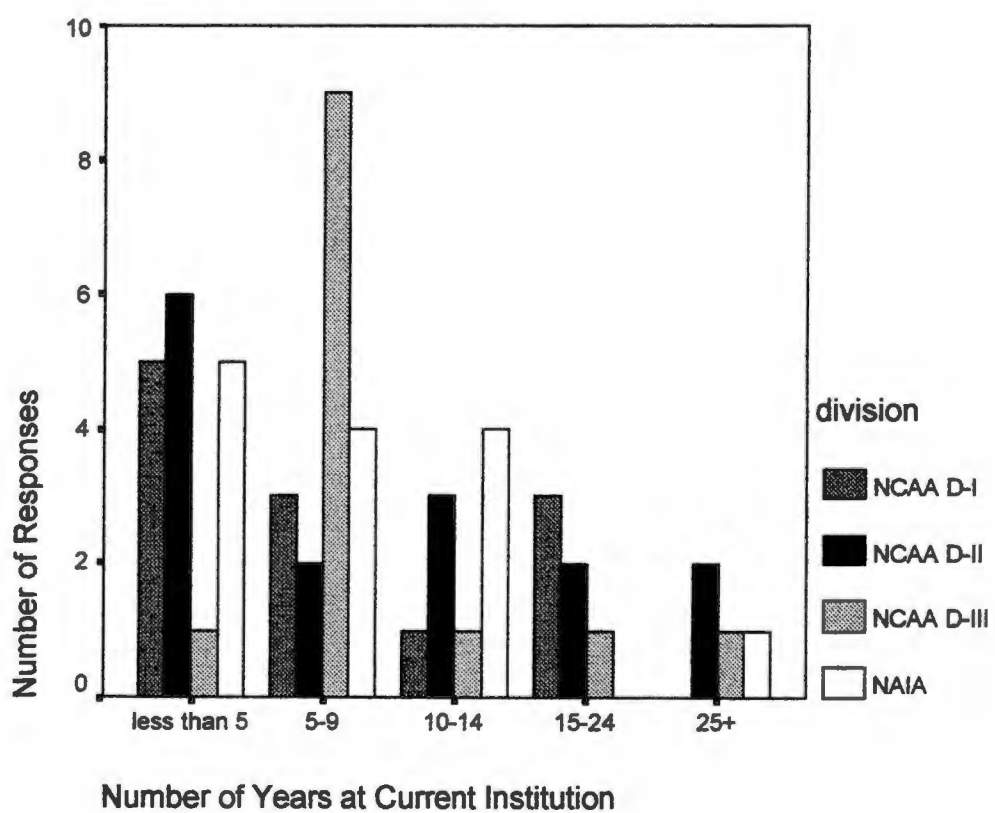


Figure 4: Comparison of tenure at current institution for ADs by division of athletics.

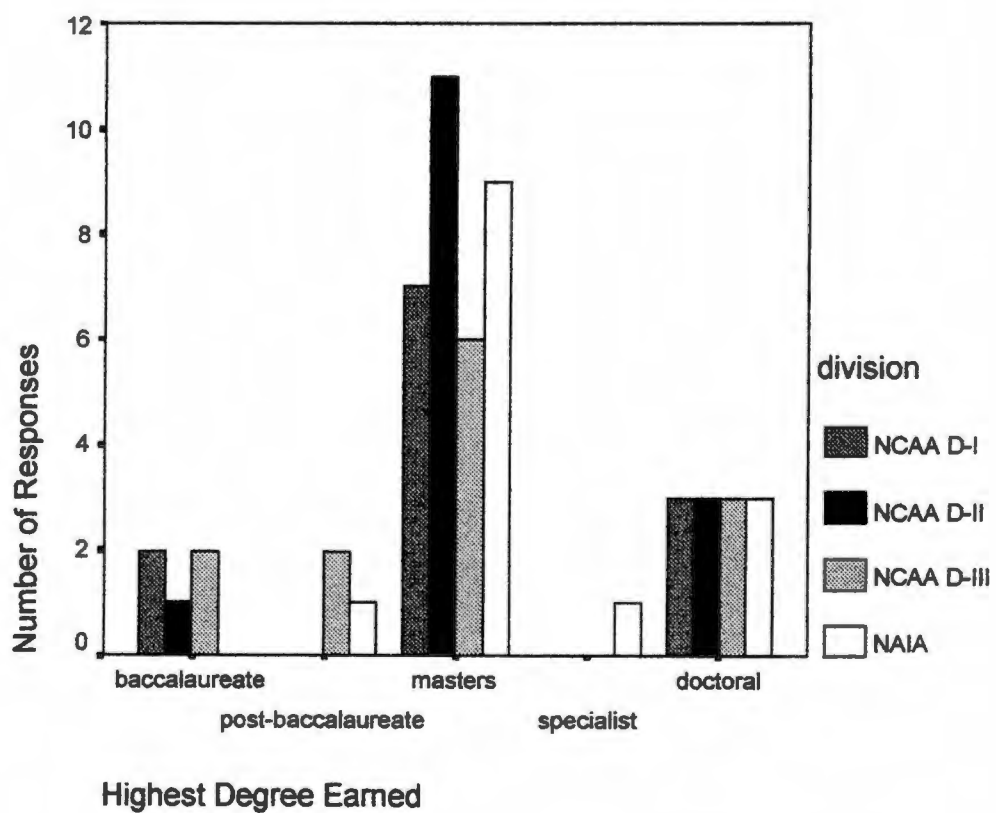


Figure 5: Comparison of education level by division of athletics.

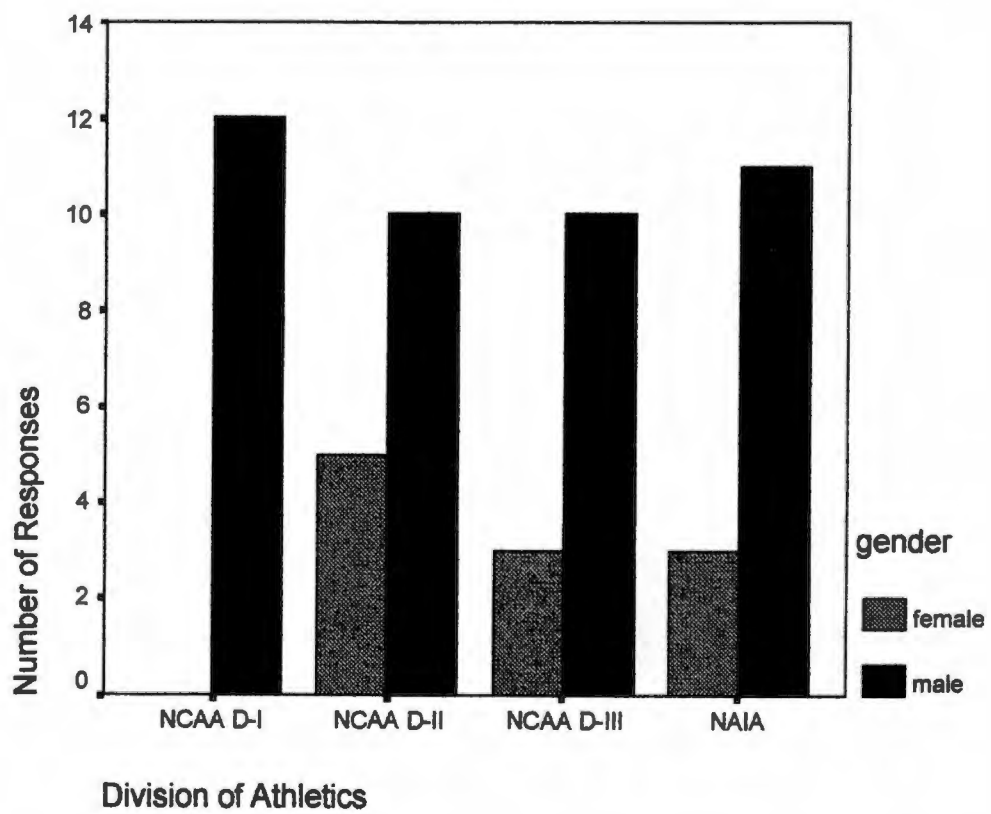


Figure 6: Number of subjects in each division by gender.

accounted for at least 20% of subjects in each of the remaining three divisions. Men ADs were equally distributed across all four divisions of athletics.

For both men and women, mean age range was 40-49 years (Figure 7), although men reported themselves as older than 40-49 years of age at a higher rate than women reported. Despite this result, more subjects of both genders (17 men and 5 women) registered between 50-59 years than any other age range. No women over age 60 participated in the study, yet 16.3% of men ADs were 60 or older.

Demographics analyses of AD positions revealed that subjects in this study were relatively new to the role of intercollegiate athletics director. Women (72.8%) and men (58.1%) generally had spent less than 10 years as ADs (Figure 8). In addition, all women, and 72.2% of men had served less than 15 years. Similarly, 64.8% of all directors had been the AD at their present institution less than 10 years (Figure 9), and eight of the eleven women worked in their current positions less than 10 years. Since this study contained no NCAA D-I ADs who were women, all women subjects started their AD career at smaller colleges and universities. An equivalent number had started in each NCAA D-II, D-III, and NAIA departments (Figure 10). As for men, 11 ADs started their AD career in NCAA D-I, the same number of D-I subjects in the study. ADs in the three lower divisions seemed to switch classifications quite often. Evidence of this notion was seen both in NCAA D-II, where 10 subjects began their

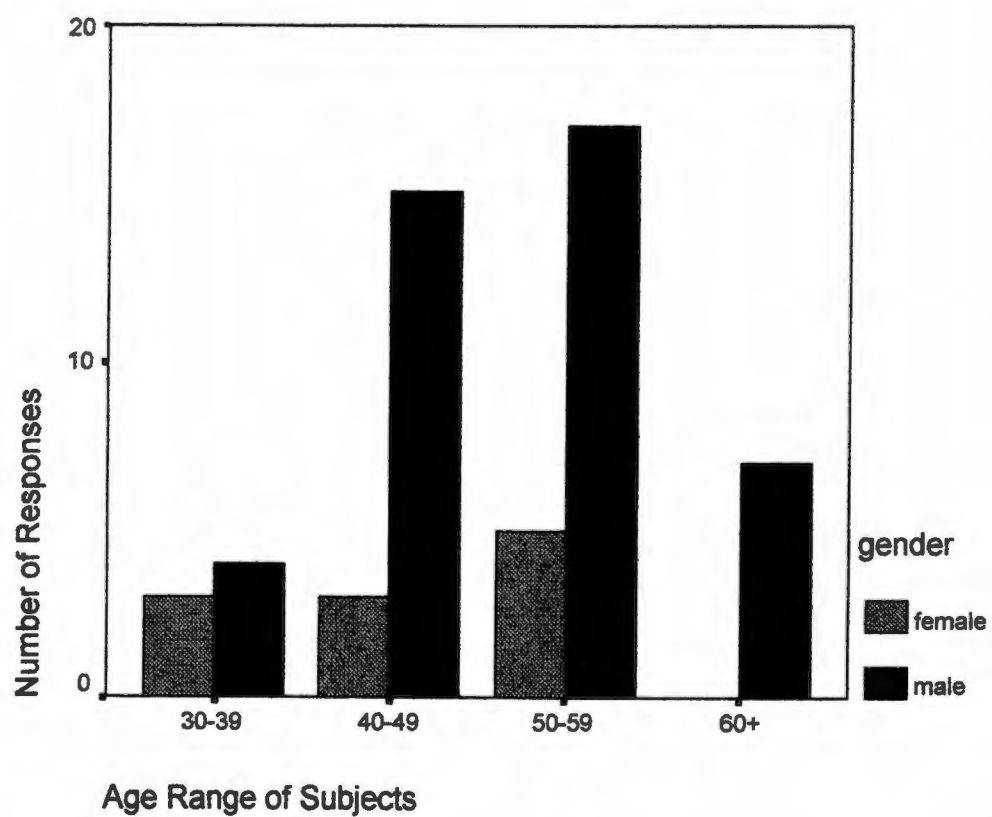


Figure 7: Number of subjects in each age range by gender.

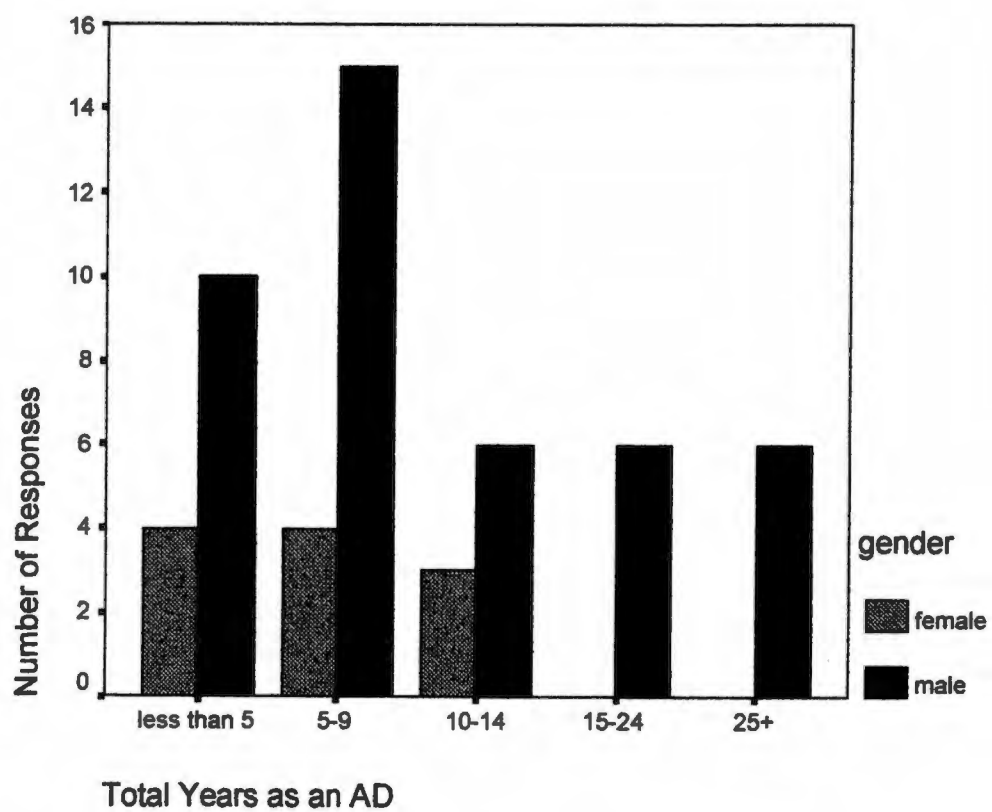


Figure 8: Comparison of the number of years as an AD by gender.

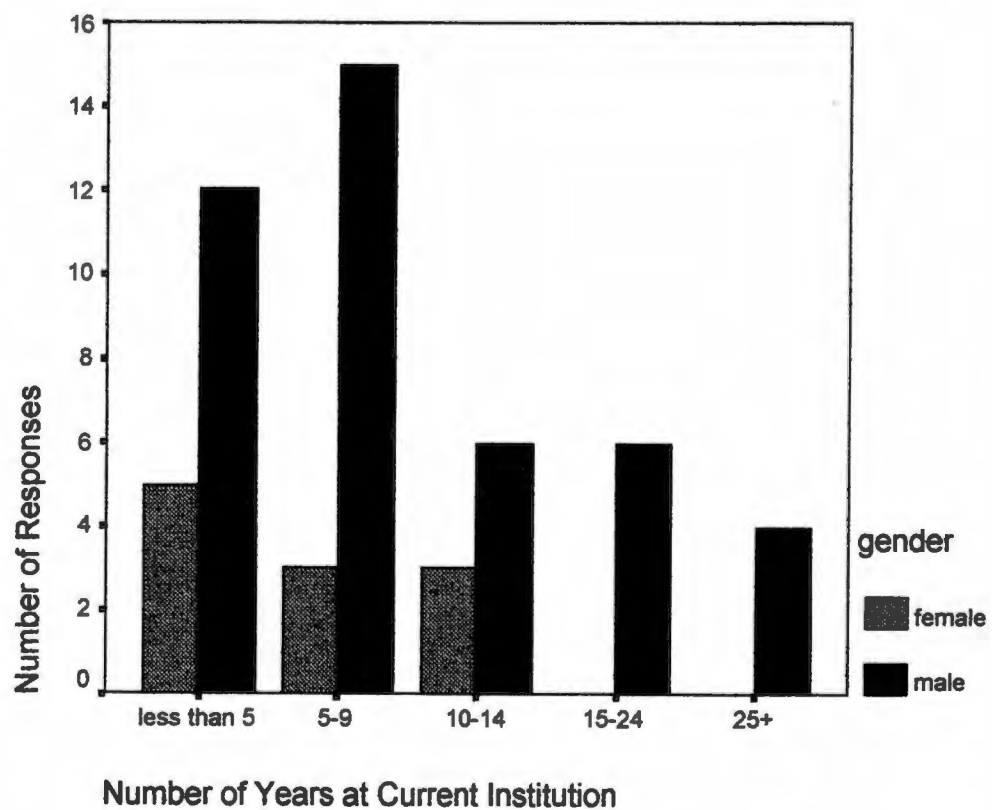


Figure 9: Comparison of tenure at current institution for ADs by gender.

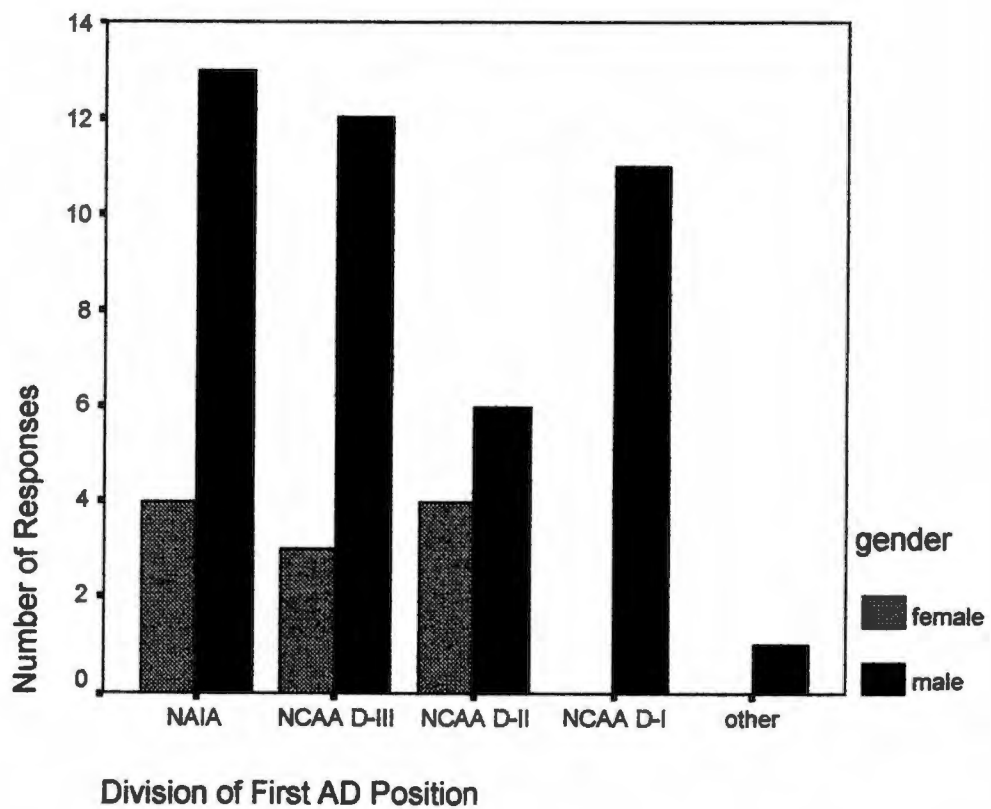


Figure 10: Comparison of level of first AD position by gender.

careers and 15 participated in the study, and in the NAIA in which 17 ADs first worked and 14 participated in the study.

In terms of education level, the percentages of men and women were similar for all degree types, with one exception (Figure 11). Only one of the 11 women held a doctorate, whereas 11 men (25.5%) possessed doctoral degrees. A total of 45 ADs had earned degrees to the level of Master.

Discussion:

Demographics data obtained in this study indicated slight differences between men and women ADs. In the last decade, the number of women enrolled in sport management programs has increased (Cuneen & Sidwell, 1994). This has resulted in increased numbers of women hired as ADs for both men's and women's athletics programs. Not surprisingly, women ADs were discovered to be younger than their male counterparts, however, what was surprising was the minimal difference in mean age range between the genders. Holmes (1993) arrived at the same result, finding that men overall were only slightly older than women, but that men older than 55 years outnumbered women over 55 years by a three-to-one margin. A by-product of the resurgence in the numbers of women ADs was reflected in the number of years they had served in AD positions. Women surveyed in this study had served fewer years in the lower three divisions of athletics than men had, and women had also been in their current positions marginally less time than men. This finding

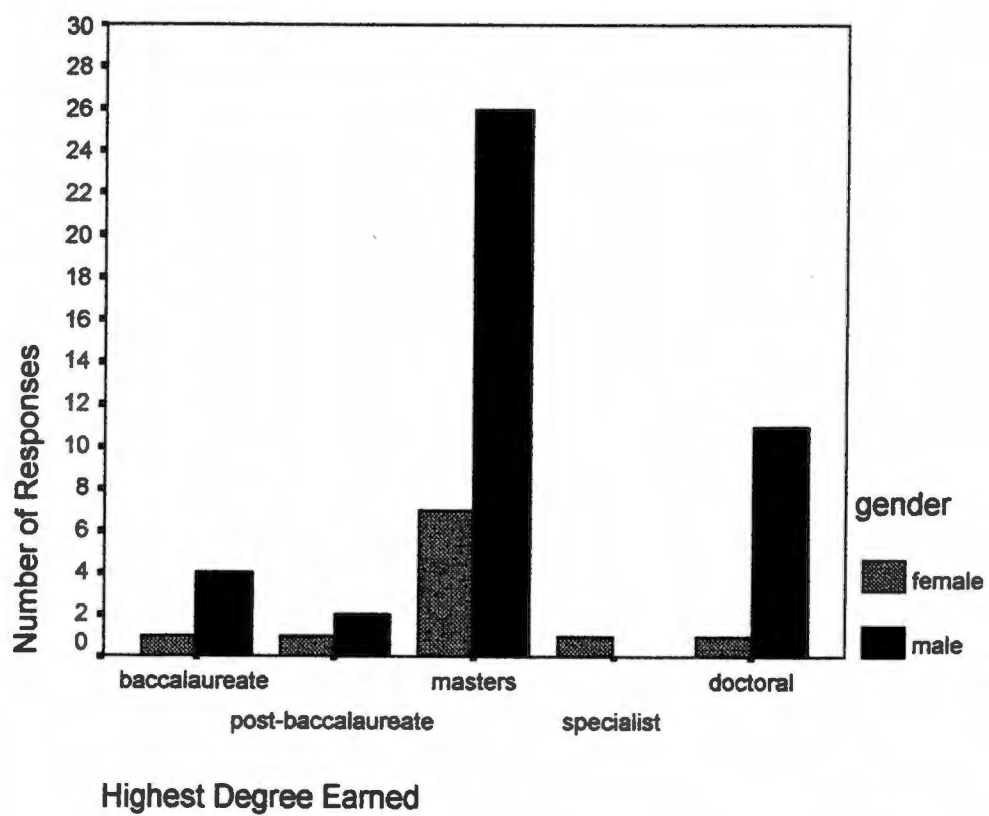


Figure 11: Comparison of education level by gender.

contradicted the discovery of Holmes (1993) that women ADs in NCAA Divisions II and III and NAIA athletics departments had been in their current position slightly longer than their male counterparts.

Slight differences in demographics based on division of athletics also existed in this study. Athletics directors in the top classification, NCAA Division I, were older and had spent more years as ADs than all smaller division ADs. Division I ADs were discovered to have begun their AD career within D-I, whereas ADs in the other affiliations transferred into other divisions more frequently. These results might be related to one of two factors, either the traditional career path described by Fitzgerald, Sagaria, and Nelson (1994), or the quotes included in Berg (1990) that suggested a combination of both education and experience breed successful NCAA athletics directors. NAIA directors, on the other hand, proved to be much younger and tended to be more inclined to switch divisions of athletics throughout their careers. Overall, the demographics results obtained in this study might have been affected by the limited scope of the study.

Temperaments of Athletics Directors

This section contains explanation of the KTS results obtained in the study followed by discussion of those results.

Results:

The Keirsey Temperament Sorter (KTS) inventory completed by each subject were scored via computer software specifically designed for

that purpose. The results provided a four-lettered personality type representative of each subject's preferences in four indexes, including: extroversion-introversion, sensing-intuition, thinking-feeling, and judging-perceiving. Numerical raw scores equated the strengths of preferences for all eight categories. Based on the outcome of the four-lettered personality types, a two-lettered temperament style was derived. A 56 percent rate of return (45 men and 11 women) was achieved on the KTS. A total of 57 KTS inventories were returned, however, one was discarded from the study due to insufficient data. Based on athletics division, 11 inventories were returned from NCAA Division I ADs, 17 inventories were returned from NCAA Division II ADs, and 14 inventories were returned from both NCAA Division III and NAIA ADs.

Results of AD personality types revealed that three typologies (ESTJ, ISTJ, and ESFJ) accounted for 60.7% of subjects (Figure 12). This percentage increased to 76.7% once two types that included an undetermined preference (ESXJ and XSTJ) were included. These undetermined types could be included because the dimension that contained the "X" would have resulted in one of the other three most populated types were the "X" preference not present. In all, only seven true typologies, each defined by clear preferences in all four dimensions of the KTS, were represented. One-fourth of the sample included an undetermined (X) preference in at least one dimension (Figure 12).

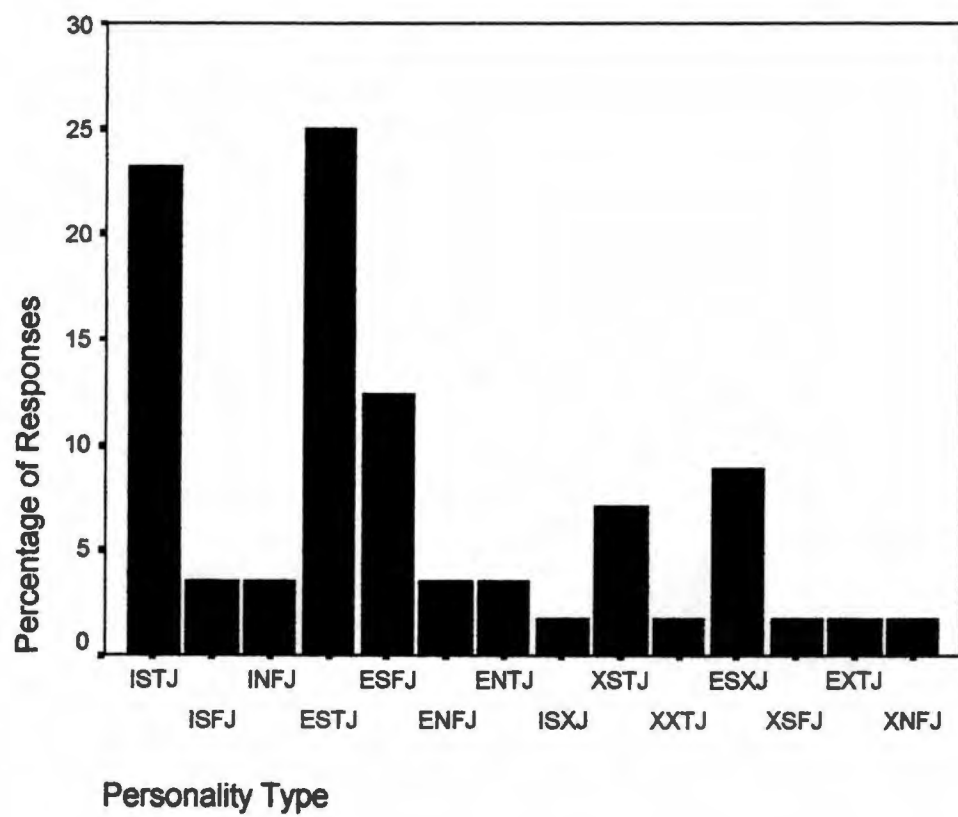


Figure 12: Percentage of subjects by personality type.

Once personality types were tabulated, each subject then was assigned a two-lettered temperament style as per the methods outlined by Keirsey and Bates (1984). The results were overwhelmingly lopsided, as 87% of ADs were SJ temperament (Figure 13). This favoritism toward Judging extended to all subjects, as no P preferences existed in the entire sample. The two remaining temperament styles, NF and NT, were represented in the sample, but only a few subjects were of these temperaments. There were 5 NFs in the sample, all of which were NCAA D-II ADs. Two subjects were labeled NT temperament style.

The "X" preference affected the outcome of temperament analyses, as well. Where the "X" preference was located in the S-N dimension, it was impossible to evaluate temperament style, as the S-N dimension is the initial determinant of temperament. If the "X" preference was in the T-F dimension, and the subject had a preference of iNtuition to Sensing, then temperament could also not be evaluated. Two cases were excluded from further temperament analyses as a result of these factors, leaving 54 subjects with clearly defined temperaments.

Mean scores on the eight preferences revealed polarization in three of the KTS dimensions (Table 3). ADs in all divisions exhibited a clear preference for Sensing ($M=12.50$, $SD=3.63$) over iNtuition ($M=6.73$, $SD=3.35$), Thinking ($M=11.48$, $SD=4.29$) over Feeling ($M=7.73$, $SD=4.27$), and Judging ($M=16.39$, $SD=2.58$) over Perceiving ($M=3.13$, $SD=2.32$). The E-I dimension was not as decidedly dominant toward either pole. An

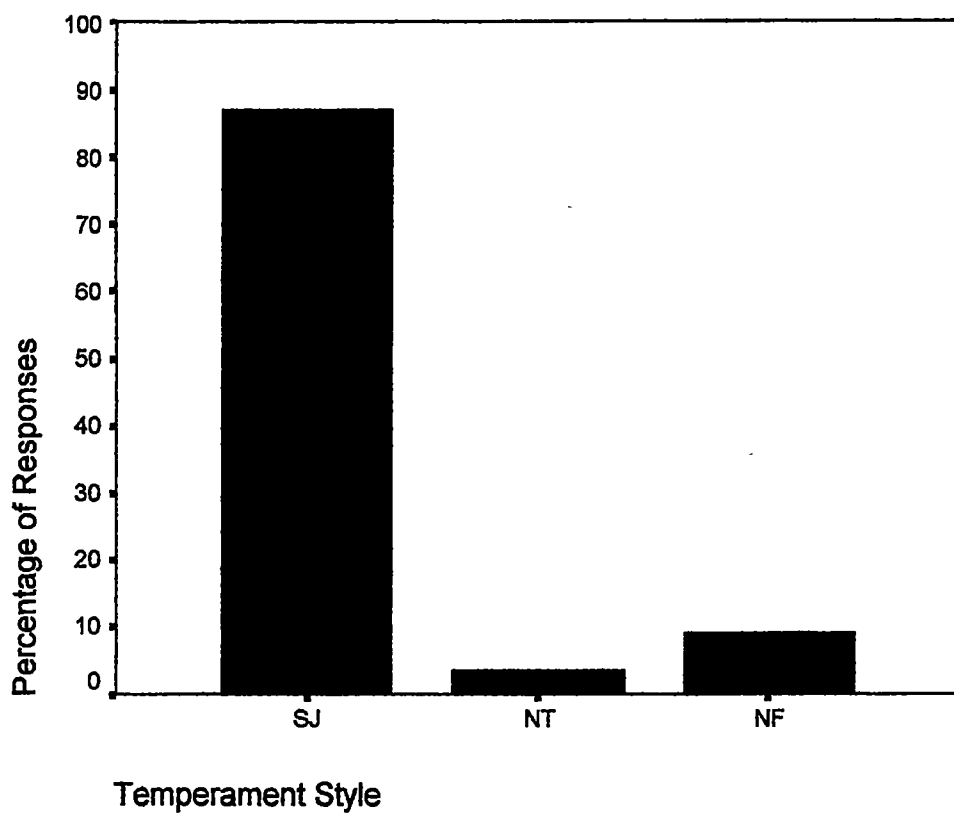


Figure 13: Percentage of subjects by temperament style.

Table 3: Summary of mean scores and standard deviations on the eight KTS preferences based on division of athletics.

	NCAA I N=11 Mean (s.d.)	NCAA II N=17 Mean (s.d.)	NCAA III N=14 Mean (s.d.)	NAIA N=14 Mean (s.d.)	TOTALS N=56 Mean (s.d.)
EXTROVERSION	6.18 (2.09)	6.71 (2.20)	5.43 (2.28)	4.64 (2.71)	5.77 (2.37)
IINTROVERSION	3.73 (1.90)	2.65 (2.00)	4.36 (2.37)	5.21 (2.67)	3.93 (2.41)
SENSING	11.64 (3.26)	12.41 (3.68)	13.07 (2.97)	12.71 (4.58)	12.50 (3.63)
INTUITION	8.18 (3.31)	5.82 (2.48)	6.50 (2.77)	6.93 (4.57)	6.73 (3.35)
THINKING	11.73 (5.18)	11.29 (4.10)	10.71 (4.78)	12.29 (3.50)	11.48 (4.29)
FEELING	8.27 (5.18)	6.82 (3.91)	8.71 (4.60)	7.43 (3.74)	7.73 (4.27)
JUDGING	16.09 (2.88)	15.82 (2.72)	16.43 (2.38)	17.29 (2.40)	16.39 (2.58)
PERCEIVING	3.91 (2.88)	3.00 (1.80)	3.21 (2.39)	2.57 (2.41)	3.13 (2.32)

overall preference for Extroversion ($M=5.77$, $SD=2.37$) was discovered, although mean scores and standard deviations results for Introversion ($M=3.93$, $SD=2.41$) were statistically similar. NAIA athletics directors favored Introversion ($M=5.21$, $SD=2.67$) to Extroversion ($M=4.64$, $SD=2.71$) as a group (Table 3).

Personality type and temperament analyses of the four intercollegiate divisions yielded similar results to the total group data. ADs in all divisions most frequently were typed either ESTJ or ISTJ. NCAA Division II ADs were the exception to these typologies, as 41.2% were types as ESFJ (Table 4). Division II also resulted in the highest percentage of undetermined preferences compared to the other divisions. In all four divisions SJ temperament style dominated (Figure 14), ranging from 81.8% of NCAA D-I ADs to 92.9% of NCAA D-III ADs.

To determine if any significant differences existed in the individual KTS dimensions regarding competitive division, a one-way ANOVA with a significance level of .05 was conducted (Table 5). The lone preference that produced a significant difference was Introversion ($F=3.529$, $p=.021$). Extroversion ($F=2.307$, $p=.087$), the opposing pole of Introversion, was the only other category that statistically came close to a significant difference, yet Extroversion was not deemed significant between any of the divisions (Table 5). Student-Newman-Keuls were performed as a post hoc test of homogeneity on the four divisions (Table 6). Post hoc analysis resulted in a significant difference in AD preference for Introversion

Table 4: Summary of response frequencies of temperament types of ADs by division of athletics.

	NCAA I	NCAA II	NCAA III	NAIA	TOTAL
ISTJ	3	2	3	5	13
ISFJ			1	1	2
INFJ			1	1	2
ESTJ	3	7	2	2	14
ESFJ	1		5	1	7
ENFJ	1	1			2
ENTJ		1		1	2
ISXJ				1	1
XSTJ	1	1	1	1	4
XXTJ				1	1
ESXJ	1	3	1		5
XSFJ		1			1
EXTJ		1			1
XNTJ	1				1
TOTALS	11	17	14	14	56

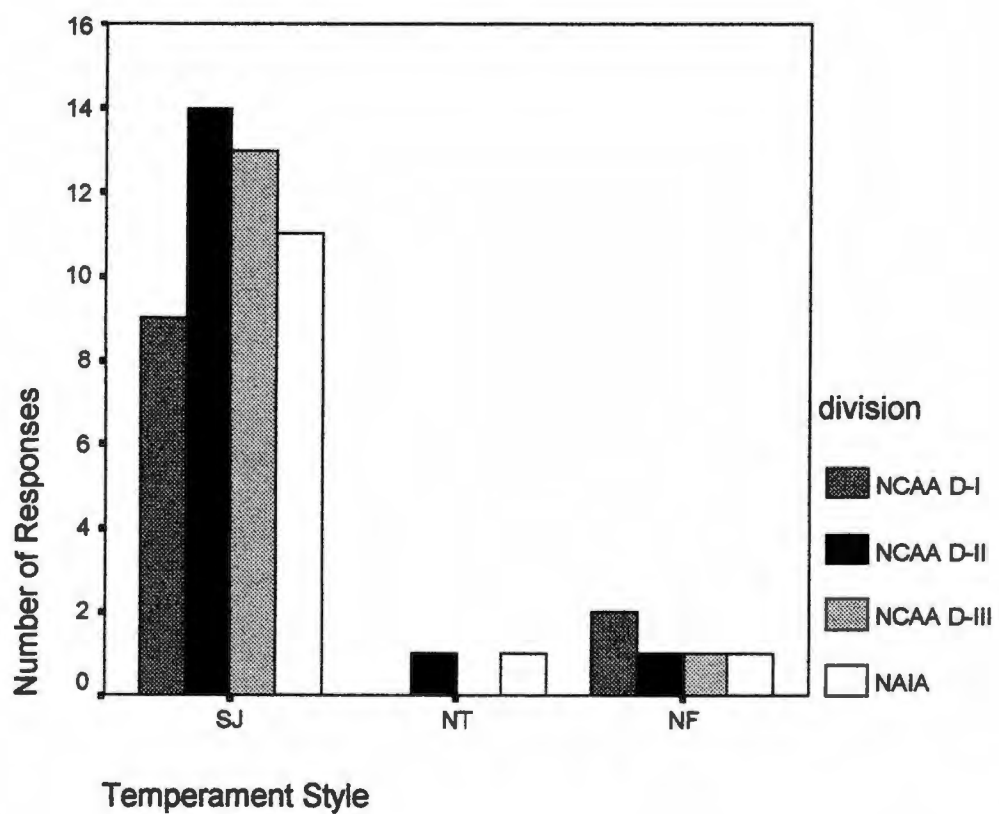


Figure 14: Comparison of temperament style by division of athletics.

Table 5: Summary of results of One-Way ANOVA on the eight KTS preferences based on division of athletics ($p = .05$).

	D.F.	F-TEST	SIG.
EXTROVERSION	3,52	2.307	.087
INTROVERSION	3,52	3.529	.021
SENSING	3,52	.331	.083
INTUITION	3,52	1.152	.337
THINKING	3,52	.324	.808
FEELING	3,52	.573	.635
JUDGING	3,52	.877	.459
PERCEIVING	3,52	.696	.559

Table 6: Results of post hoc Student-Newman-Kuels between divisions using Harmonic Mean Sample Size (M=13.671).

	NAIA (N=14)	NCAA D-III (N=14)	NCAA D-II (N=17)	NCAA D-I (N=11)	SIG. P< .05
EXTROVERSION	4.64	5.43	6.71	6.18	.098
INTROVERSION	5.21	4.36 4.36	2.65	3.73 3.73	.128 .207
SENSING	12.71	13.07	12.41	11.64	.741
INTUITION	6.93	6.50	5.82	8.18	.263
THINKING	12.29	10.71	11.29	11.73	.784
FEELING	7.43	8.71	6.82	8.27	.664
JUDGING	17.29	16.43	15.82	16.09	.460
PERCEIVING	2.57	3.21	3.00	3.91	.448

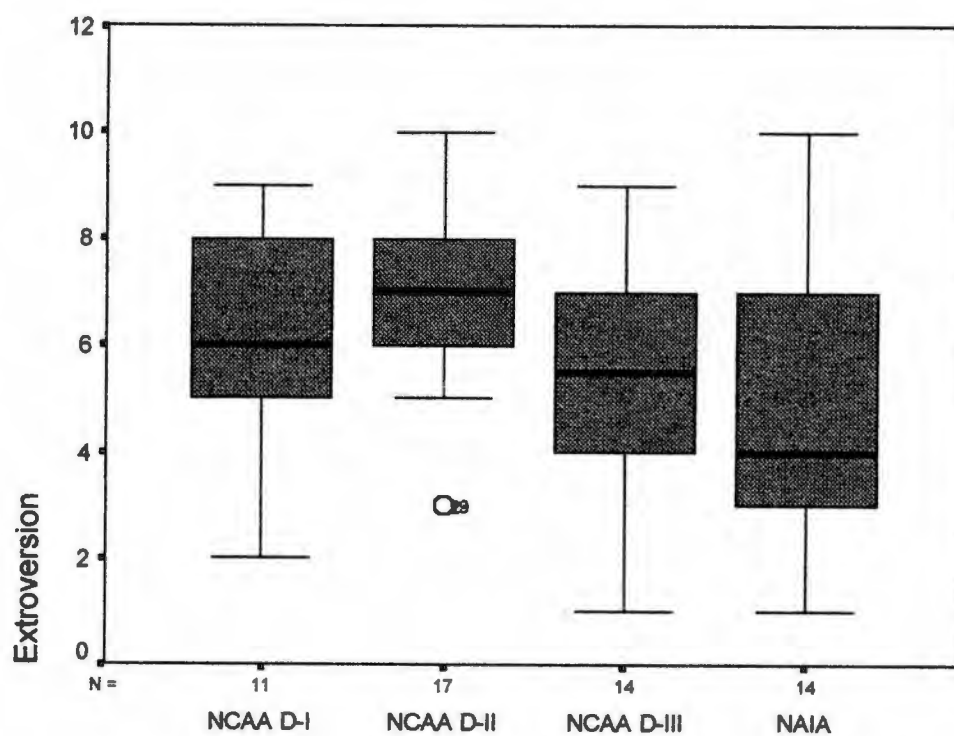
($p = .207$) between NCAA Division II and NAIA ADs. When compared to the other groups, both NCAA D-II and NAIA ADs were not discovered to be significantly different in their preference for Introversion. The remaining 7 categories resulted in no statistically significant differences between divisions in post hoc analyses (Figures 15-22).

Comparisons of type and temperament between men ADs and women ADs yielded results similar to those obtained in the analyses of the divisions. Both men (48.8%) and women (45.5%) were most often types as ISTJ or ESTJ (Figure 23). Undetermined preferences were more prevalent for women (36.4%) than for men (24.2%). SJ temperament styles constituted 86% of men and 90% of women (Figure 24). One AD of each gender typed as NT temperament, and five others, all men, were NF temperament.

Women had higher average scores than men did on Extroversion, Sensing, Thinking, and Judging. Conversely, men were more Introverted, iNtuitive, Feeling, and Perceiving based on mean scores (Table 7). No significant differences between men and women were discovered by one-way ANOVA (Table 8). In addition, no significant differences occurred between genders in the percentile ranges and median scores of the eight KTS preferences (Figures 25-32).

Discussion:

The data analyzed on the whole sample of ADs in this study revealed that athletics directors are a homogeneous group. Only slight



Division of Athletics

Figure 15: Comparison of percentile range of Extroversion preference scores based on division of athletics.

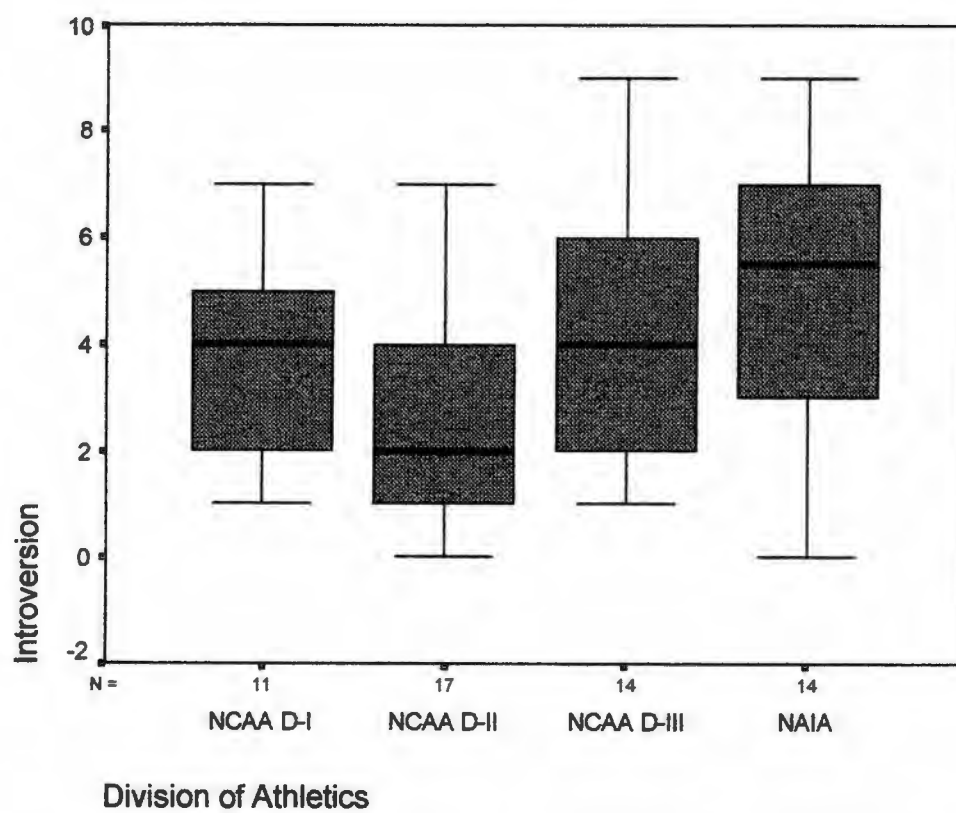
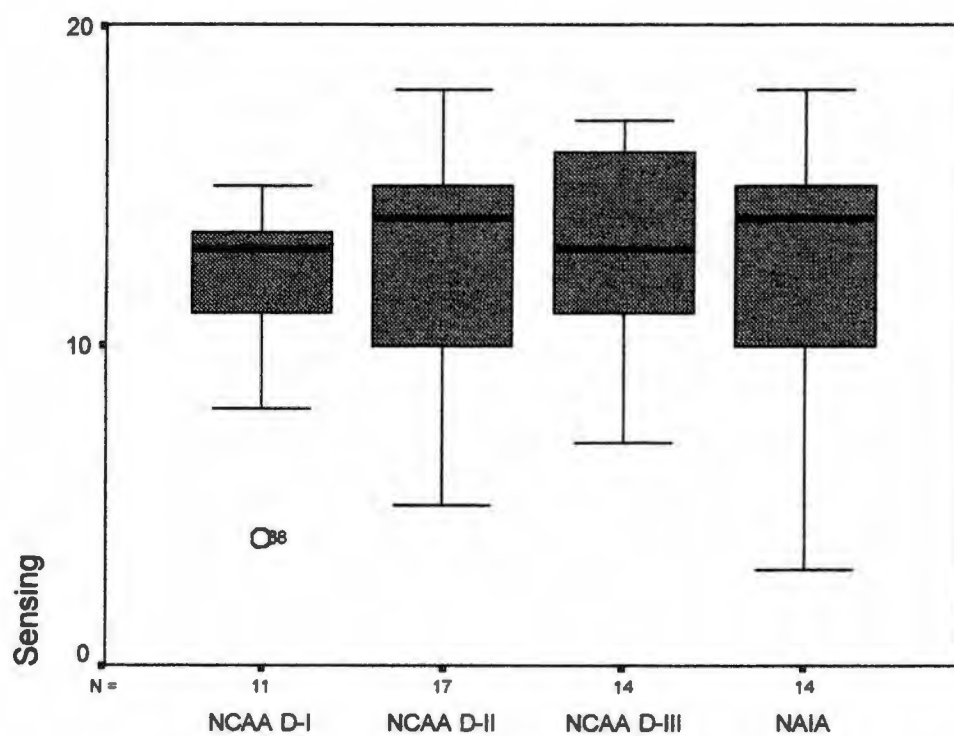


Figure 16: Comparison of percentile range of Introversion preference scores based on division of athletics.



Division of Athletics

Figure 17: Comparison of percentile range of Sensing preference scores based on division of athletics.

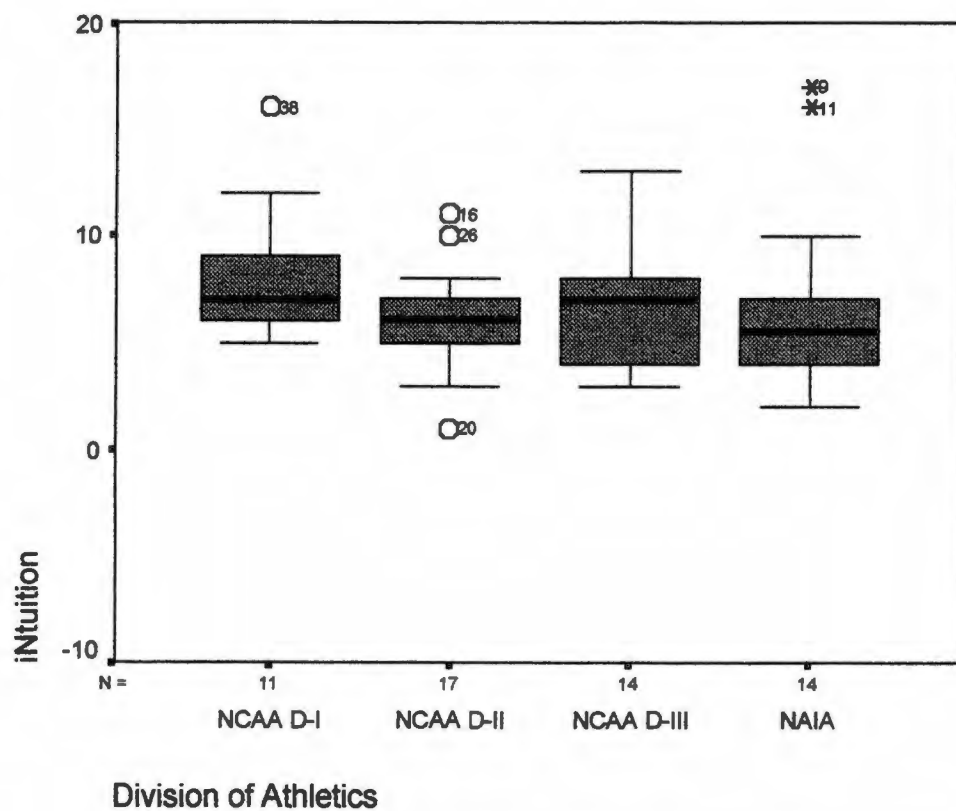


Figure 18: Comparison of percentile range of iNtuition preference scores based on division of athletics.

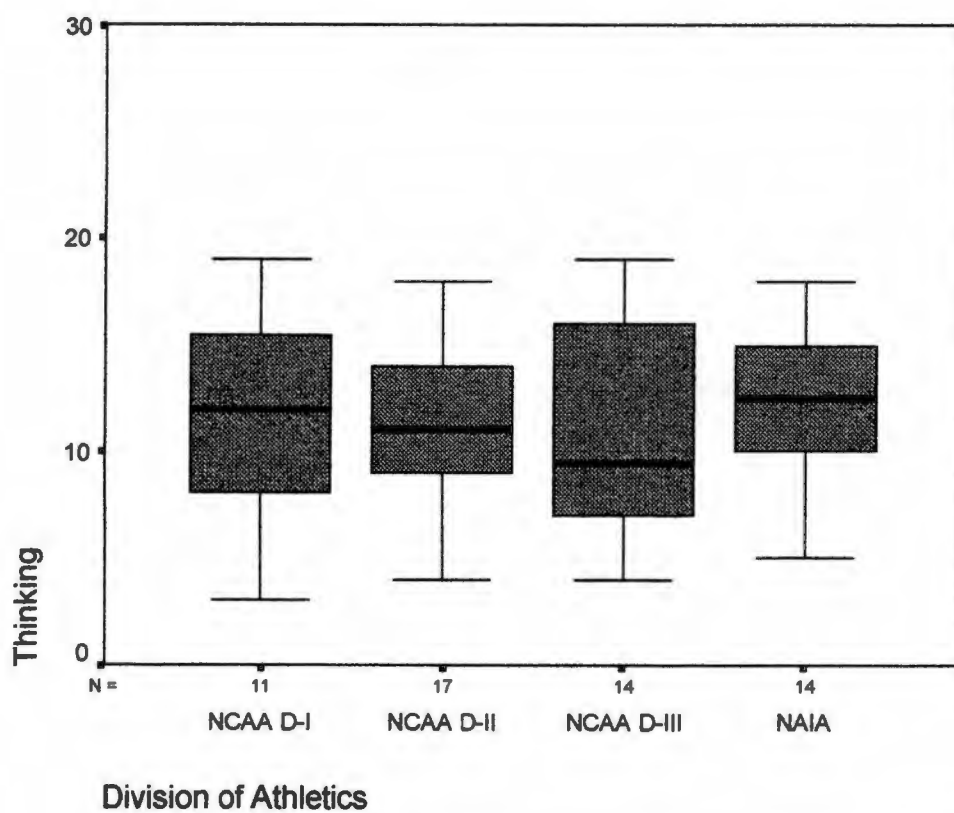


Figure 19: Comparison of percentile range of Thinking preference scores based on division of athletics.

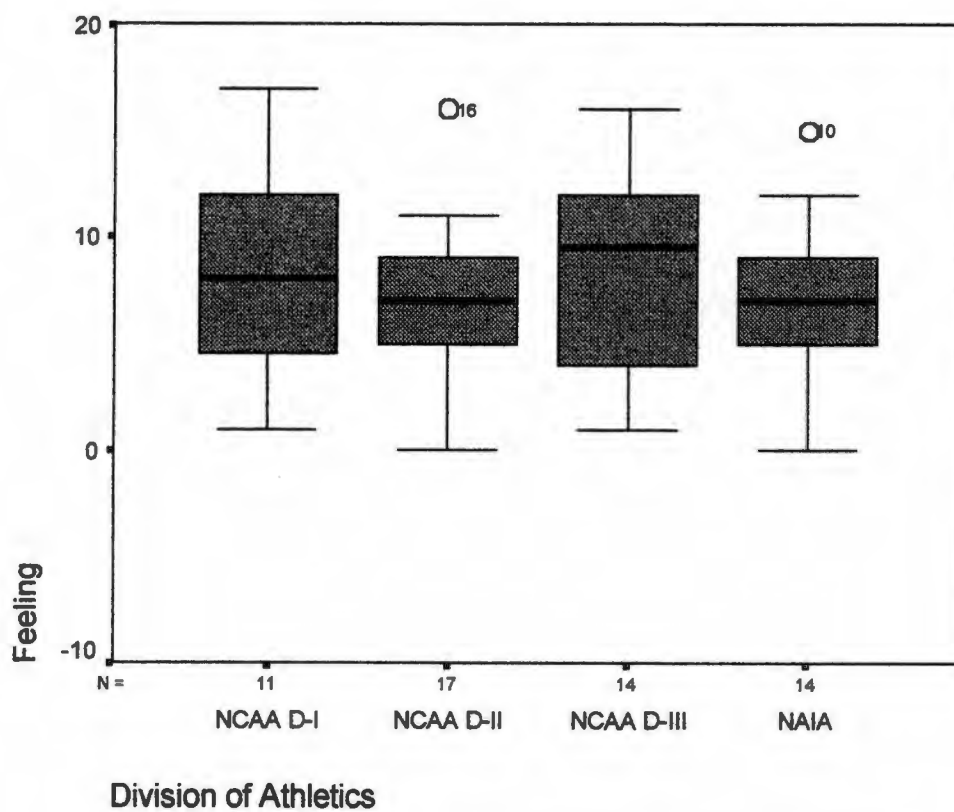


Figure 20: Comparison of percentile range of Feeling preference scores based on division of athletics.

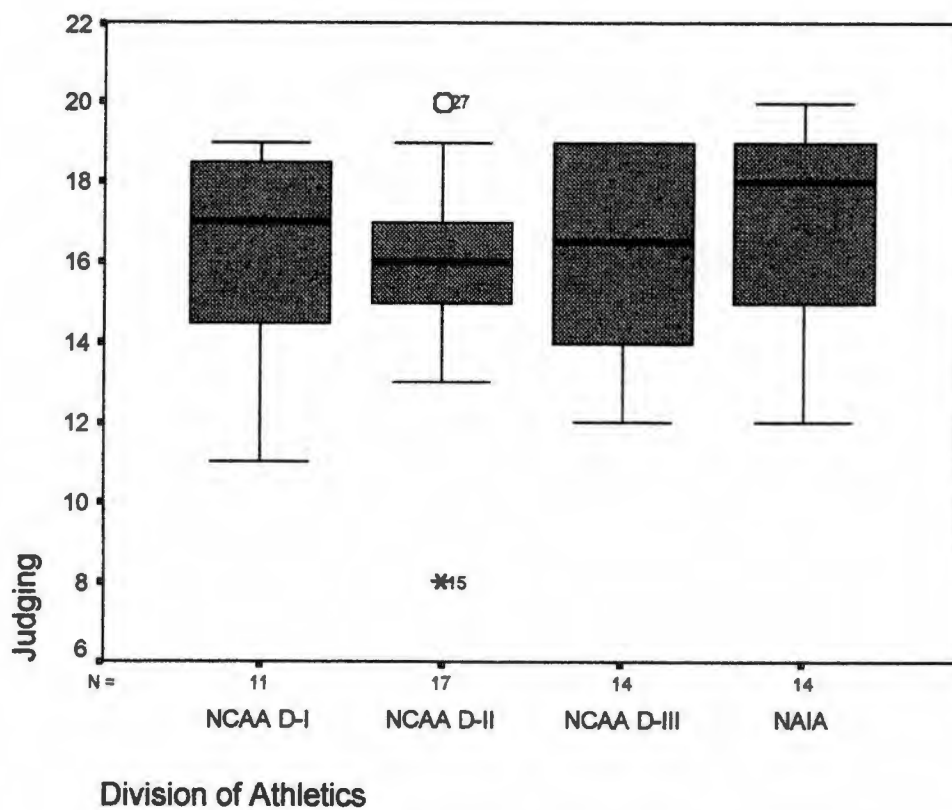


Figure 21: Comparison of percentile range of Judging preference scores based on division of athletics.

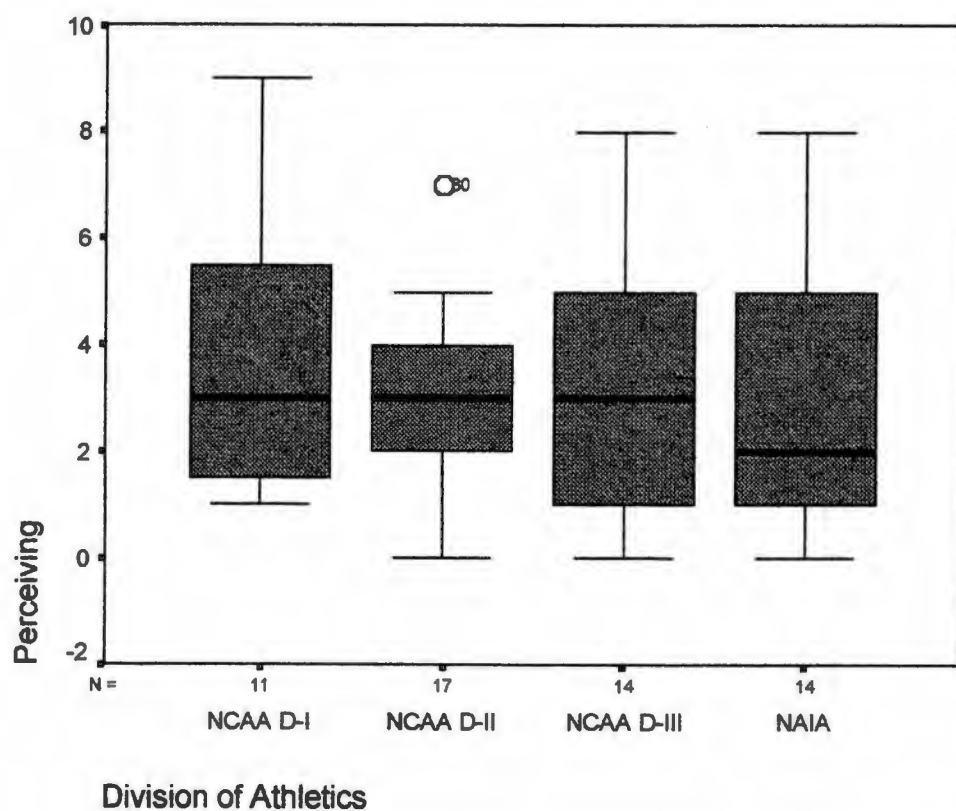


Figure 22: Comparison of percentile range of Perceiving preference scores based on division of athletics.

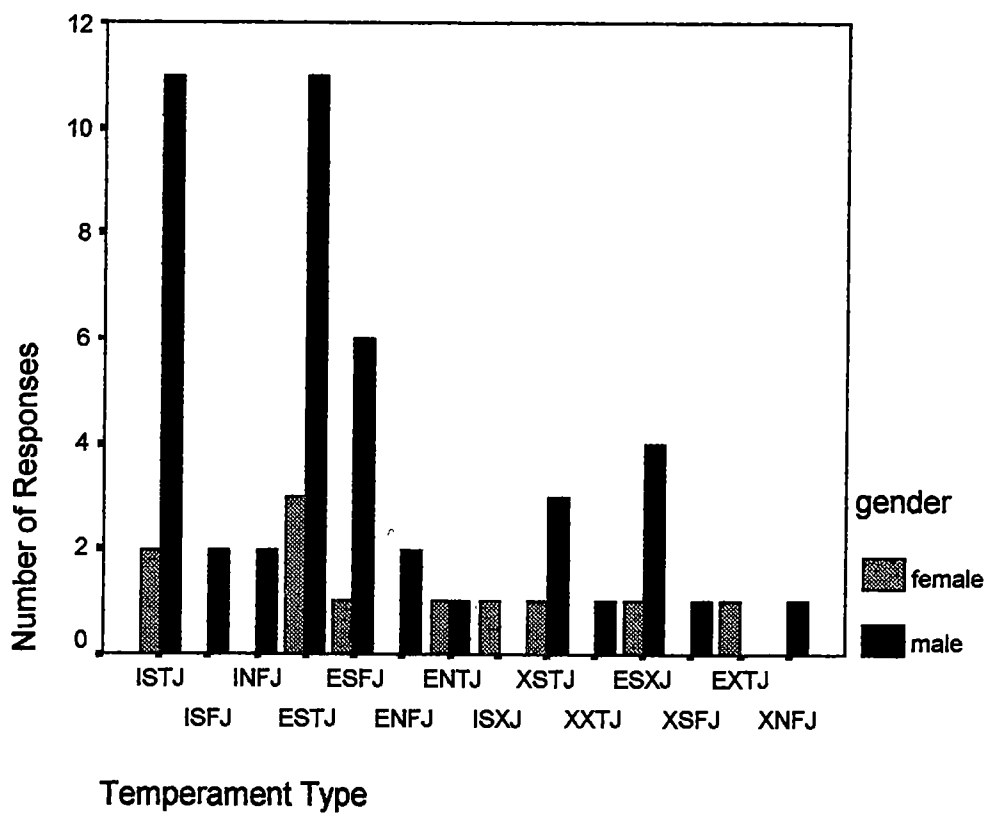


Figure 23: Comparison of Temperament Types by gender.

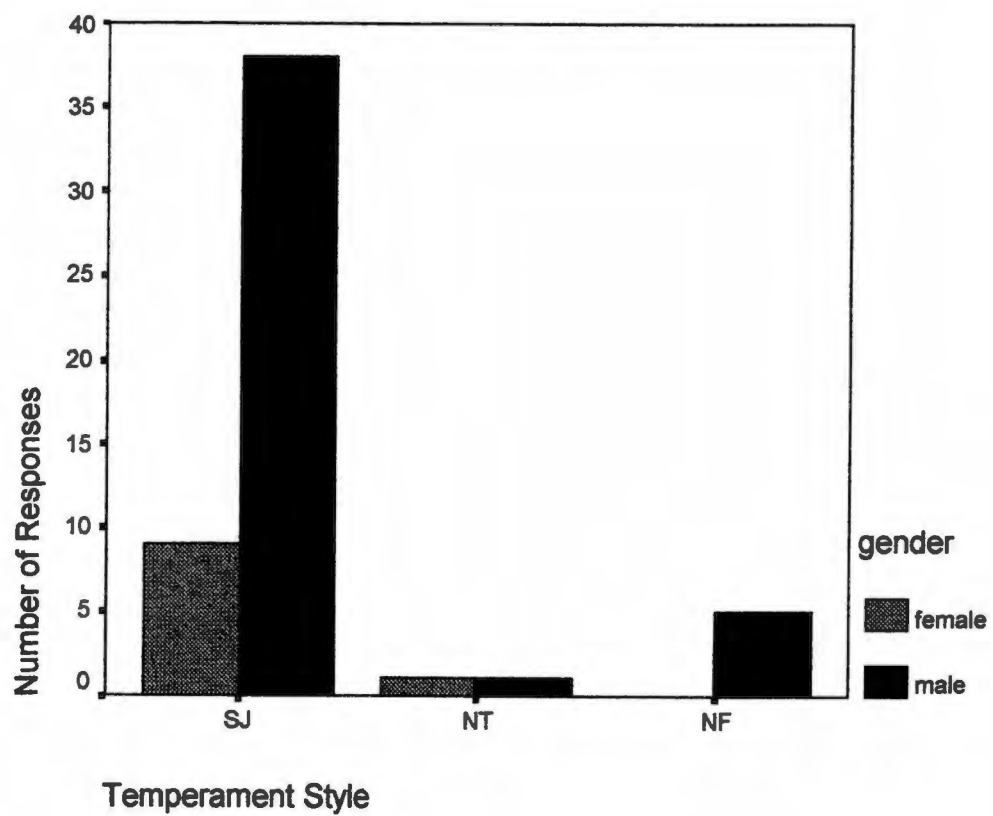


Figure 24: Comparison of Temperament Styles by gender.

Table 7: Summary of mean scores and standard deviations on the eight KTS preferences based on gender.

	FEMALE N=11 Mean (s.d.)	MALE N=45 Mean (s.d.)	TOTALS N=56 Mean (s.d.)
EXTROVERSION	5.91 (2.81)	5.73 (2.28)	5.77 (2.37)
INTROVERSION	3.91 (2.88)	3.93 (2.32)	3.93 (2.41)
SENSING	12.91 (3.21)	12.40 (3.75)	12.50 (3.63)
INTUITION	6.18 (1.89)	6.87 (3.62)	6.73 (3.35)
THINKING	11.55 (2.81)	11.47 (4.61)	11.48 (4.29)
FEELING	7.36 (2.34)	7.82 (4.63)	7.73 (4.27)
JUDGING	16.64 (3.64)	16.33 (2.31)	16.39 (2.58)
PERCEIVING	2.45 (2.38)	3.29 (2.30)	3.13 (2.32)

Table 8: Summary of results of One-Way ANOVA on the eight KTS preferences based on gender ($p = .05$).

	D.F.	F-TEST	SIG.
EXTROVERSION	1,54	.048	.828
INTROVERSION	1,54	.001	.976
SENSING	1,54	.171	.681
INTUITION	1,54	.365	.548
THINKING	1,54	.003	.957
FEELING	1,54	.100	.752
JUDGING	1,54	.120	.731
PERCEIVING	1,54	1.146	.289

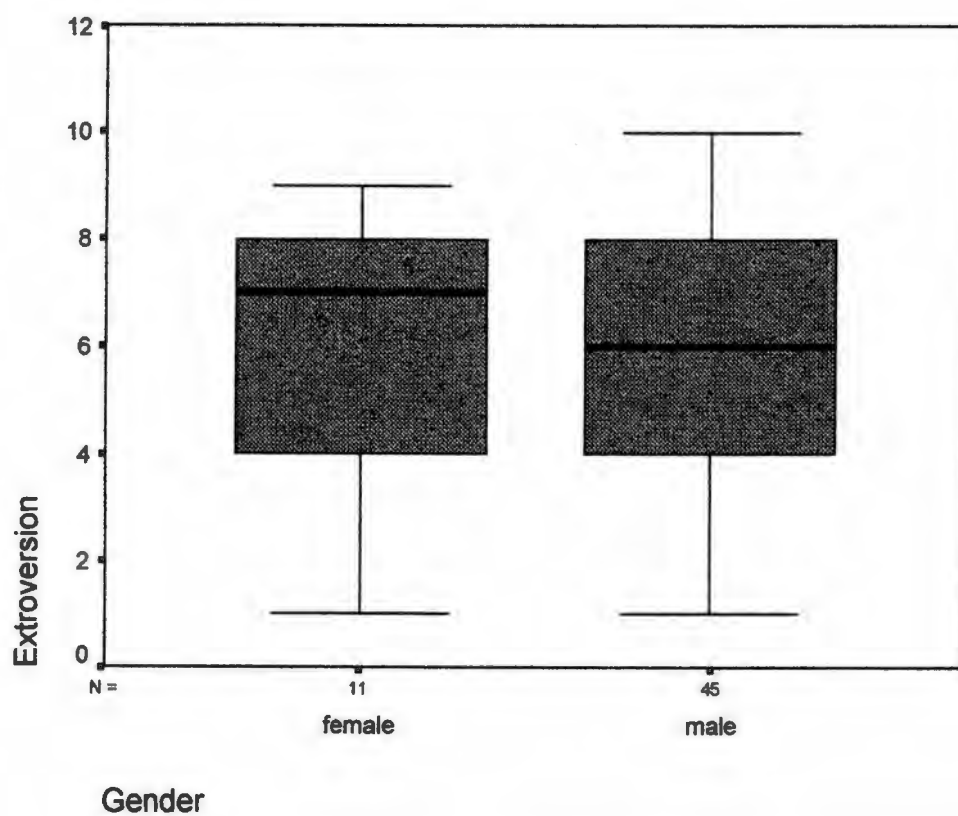


Figure 25: Comparison of percentile range of Extroversion preference scores based on gender.

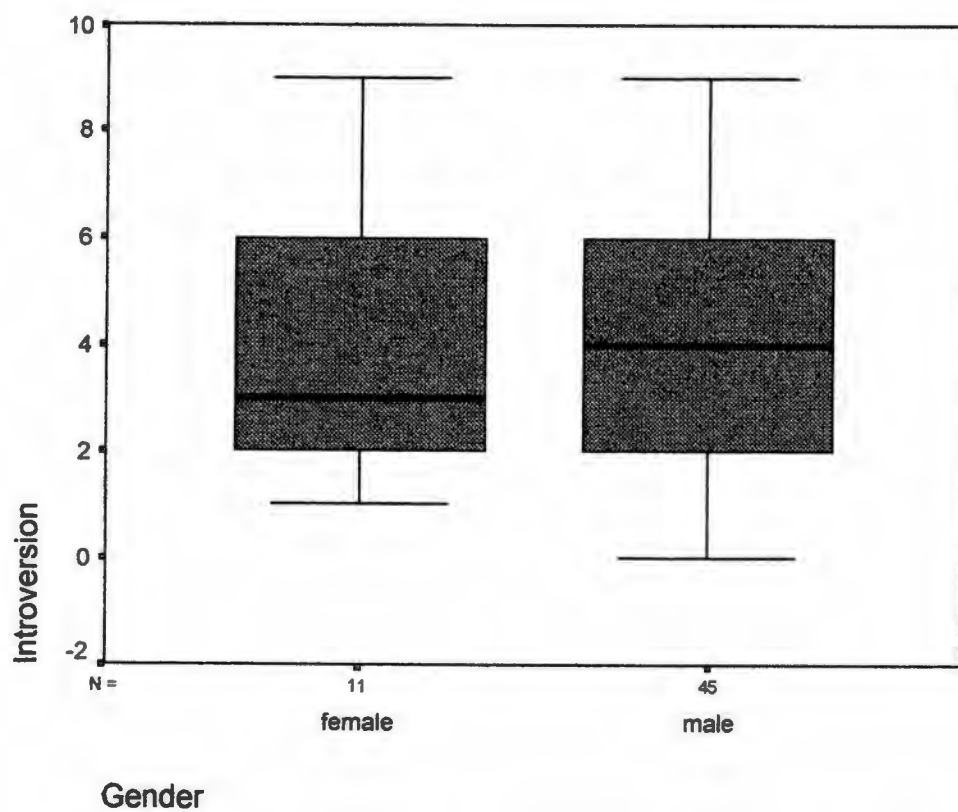


Figure 26: Comparison of percentile range of Introversion preference scores based on gender.

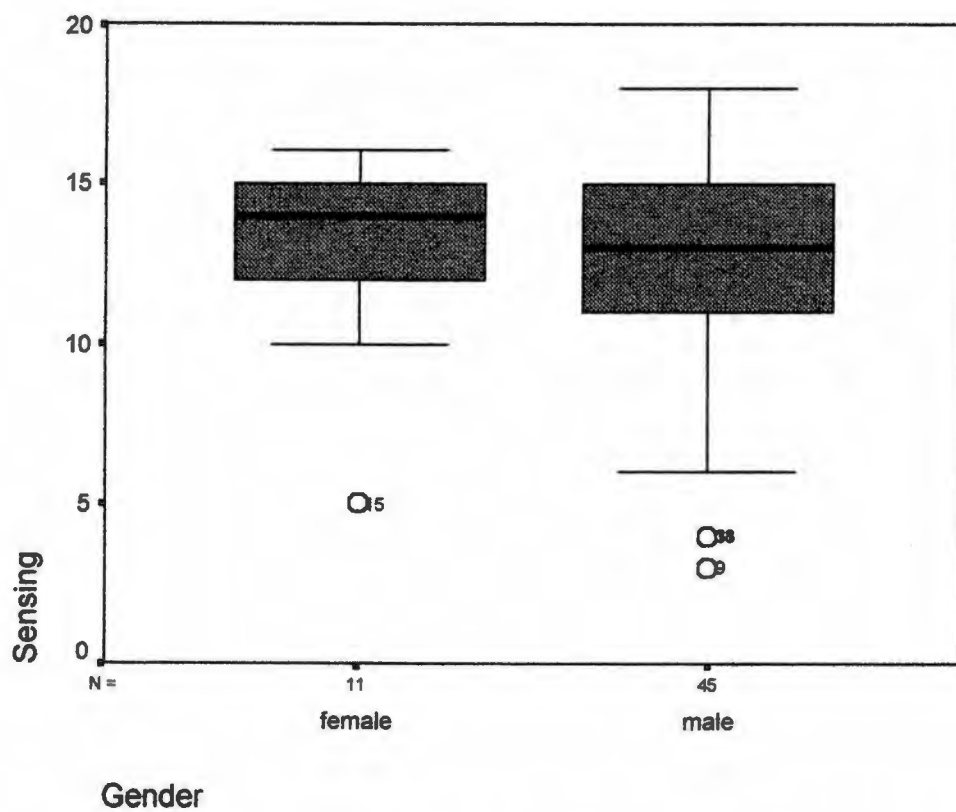


Figure 27: Comparison of percentile range of Sensing preference scores based on gender.

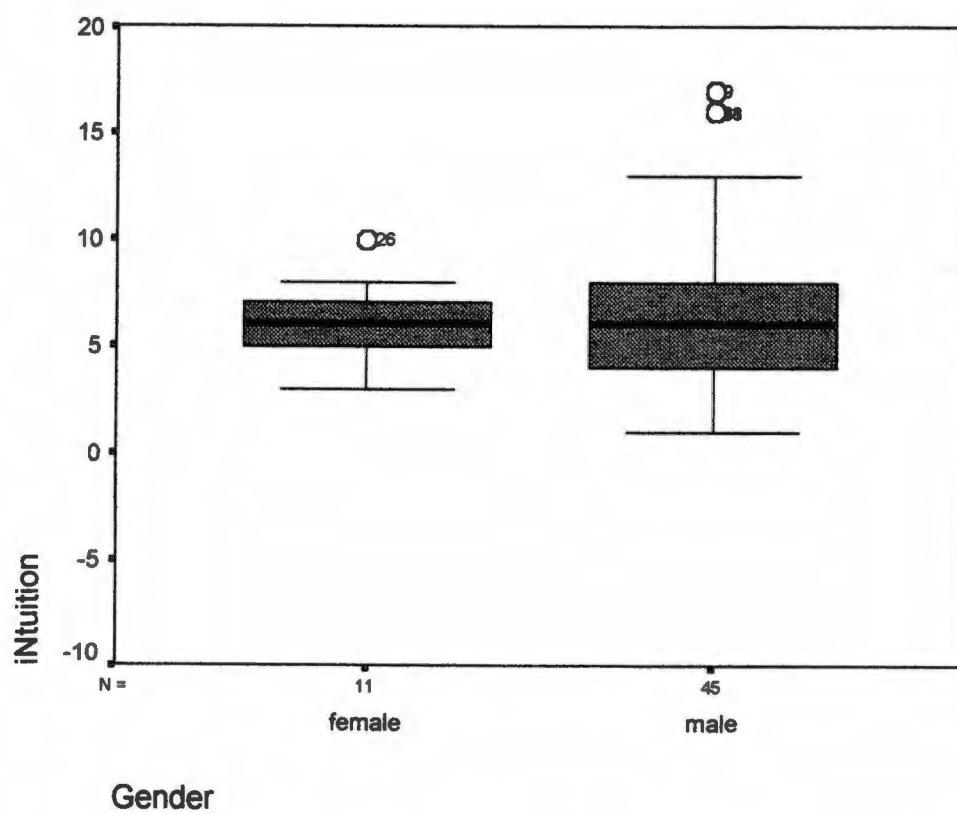


Figure 28: Comparison of percentile range of iNtuition preference scores based on gender.

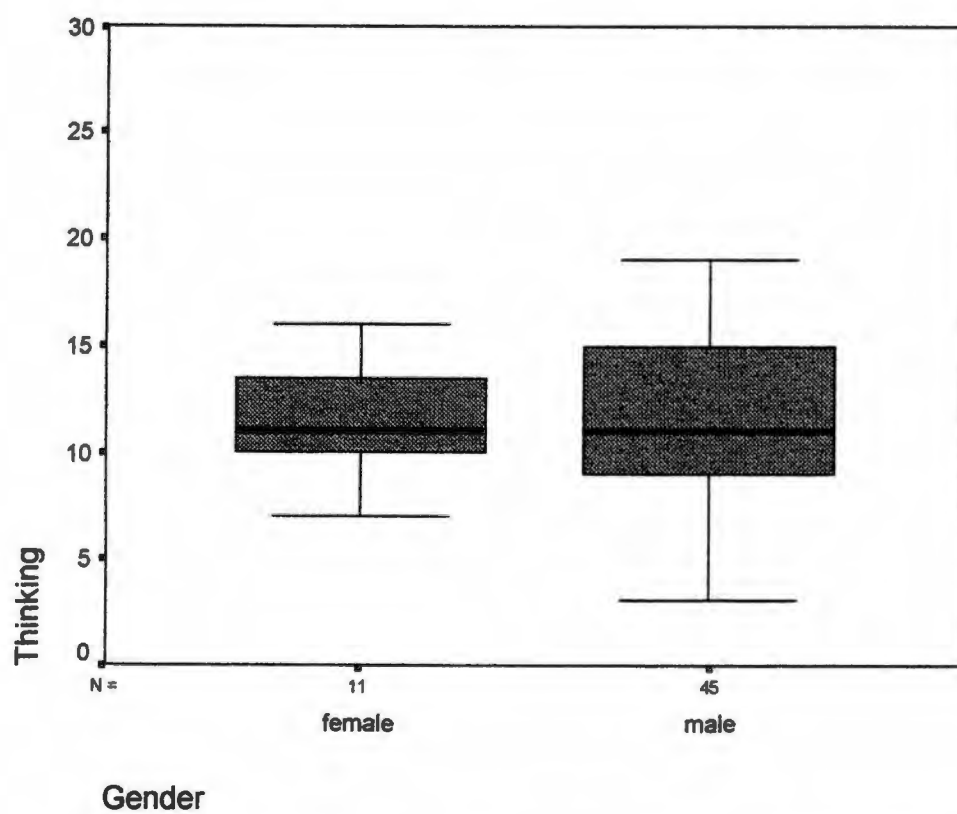


Figure 29: Comparison of percentile range of Thinking preference scores based on gender.

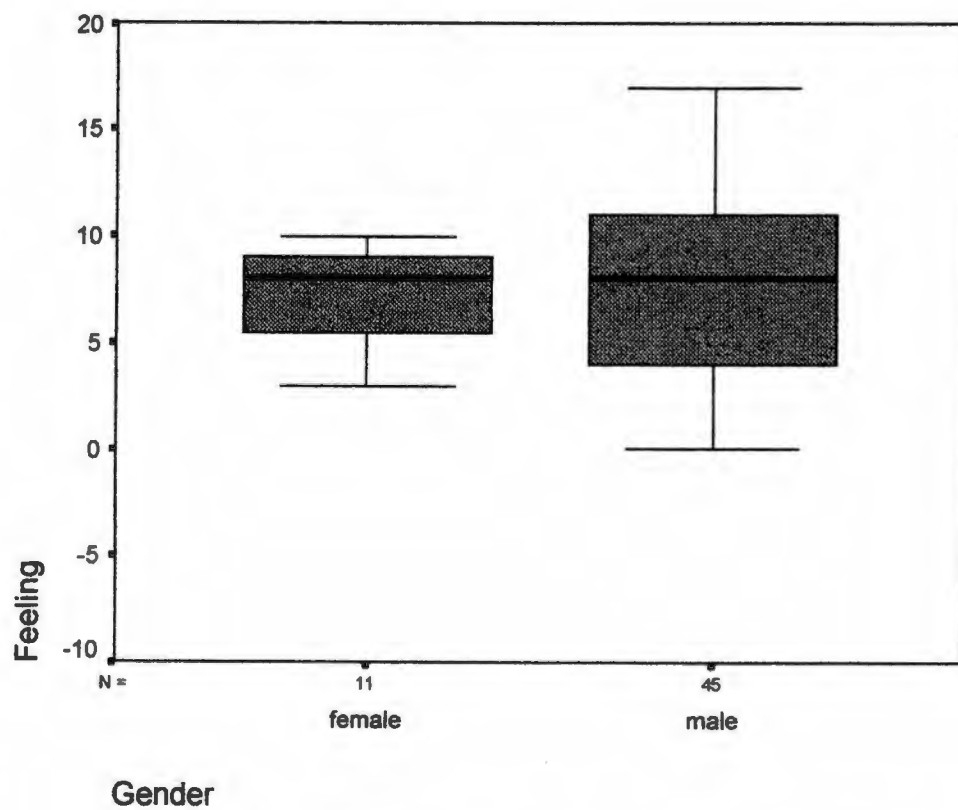


Figure 30: Comparison of percentile range of Feeling preference scores based on gender.

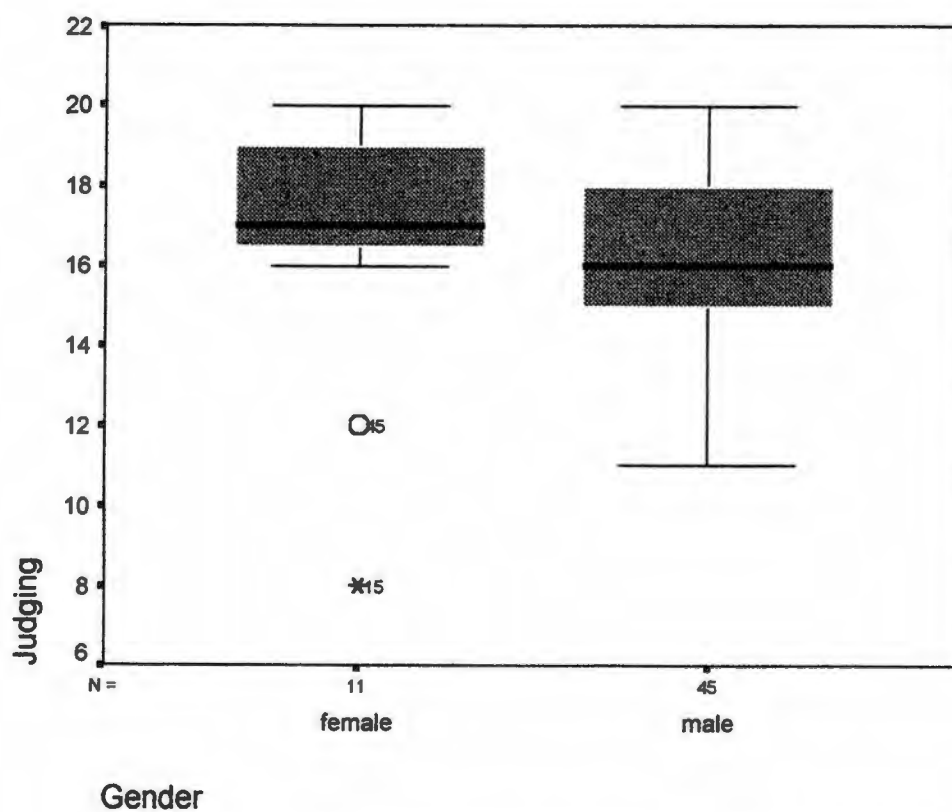


Figure 31: Comparison of percentile range of Judging preference scores based on gender.

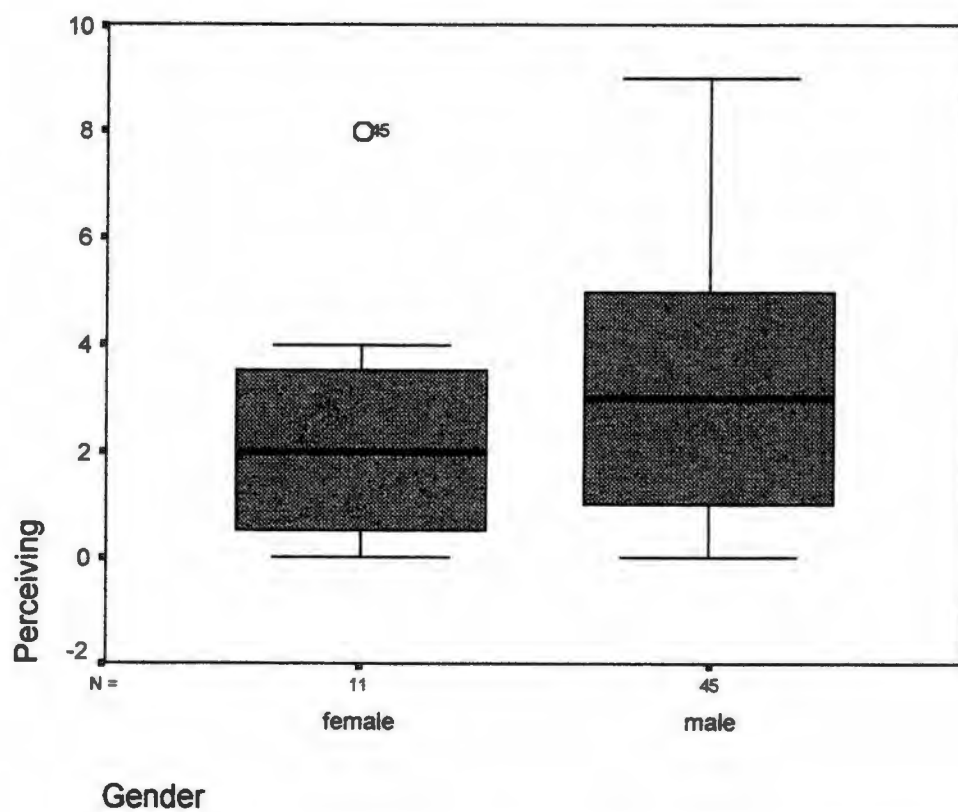


Figure 32: Comparison of percentile range of Perceiving preference scores based on gender.

differences were discovered when type and temperament analyses were conducted both by division of athletics and by gender. The same three personality types, ESTJ, ISTJ, and ESFJ, were the most prominent types for ADs in all divisions and both genders. This discovery agreed with prior studies on the personality types of managers (Holmes, 1993; Reyneirse & Harker, 1995; and Swanger, 1998). The most unusual result of this study was the number of "X" types included. Two typologies that included an undetermined preference included more than one subject. Swanger (1998) arrived at a similar result, as subjects typed as XSFJ accounted for the fifth highest percentage of any one type. Johnson (1989) was unable to analyze 10% of subjects because of undetermined types. The results obtained in this study might have been influenced by the small sample size used. The results might also have resulted from the researcher's selection of the Keirsey Temperament Sorter as the instrument of measure, because the KTS contains only a few questions directed at resolve for preference in each scale. A more lengthy and detailed inventory could have eliminated many of the undetermined preference results.

The results of this study also produced an overwhelming percentage of SJ temperaments. Management studies have found this result in many different career occupations (Johnson, 1989; Holmes, 1993; Gryskiewicz & Tullar, 1995; and Swanger, 1998). In fact, both Kroeger and Thuesen, (1992) and Keirsey (1998) stated that SJ

temperaments are the most populous temperament styles in management occupations, at all levels. Swanger (1998) was the only study that included as high a percentage (nearly 85%) as this study, where 87% were SJ. Once again, the small sample may have influenced this outcome. Yet, Keirsey (1998) stated that management personnel are more predisposed to operate with Judging characteristics to enhance their rate of success. Furthermore, by definition, a Judging personality or temperament person would be more inclined to complete, and return, a survey such as the one used in this study. Therefore, the unreturned responses might have balanced the results more toward the Perceiving preference.

The fact that no Perceiving preferences existed in this study was somewhat surprising. Johnson (1989) contained no SP temperament styles, but no mention was made as to whether any of the NFs or NTs preferred Perceiving to Judging. This result could tie into the relatively young ages of the subjects. Since such high percentages of subjects possessed some form of a post-graduate degree, most often either a Master's or a doctorate, it is possible that the nature of post-graduate education emphasizes Judging behavior over Perceiving behavior. Thus, the ADs sampled may have developed their Judging skills throughout their education and work experiences and then applied those Judging skills toward their work even if they happen to prefer Perceiving in other aspects of their life.

Based on division of athletics, all ADs were again quite homogeneous. The Introversion preference resulted in the only significant difference between the divisions. While NCAA D-II ADs were the most Extroverted, NAIA ADs were the most Introverted. This result both supported and contradicted the findings of Holmes (1993), who stated that ISTJs were most populous in NCAA D-II males and NAIA females. A different result might have occurred if the sample had been larger or had been extended to other regions of the United States. All four divisions resulted in ESTJs and ISTJs as the majority of types. However, NCAA D-II contained the highest number of ESFJs. The same possibilities of sampling error or regional exclusion exist as explanations of this outcome. The analyses of typologies across both genders yielded one unusual result. Men ADs more often preferred Feeling to Thinking, while women ADs were more often typed as Thinking instead of Feeling. Prior research on personality types state that the T-F dimension is the lone dimension that is statistically different according to gender (Keirsey & Bates, 1984 and Kroeger & Thuesen, 1992), as 60% of women are Feeling types, and 60% of men are Thinking types. The results on T-F preferences in men and women obtained in this study reveal that men and women employed in intercollegiate athletics each have gravitated more toward the midpoint of the T-F scale. As men and women learn from each other, this may be a trend in society, or it may be associated with the notion that similar occupations or job characteristics attract similar people (Pittenger, 1993), as was discovered by this research.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

This information contained in this chapter is divided into three separate headings each collectively pertaining to the final outcomes of the study. The first section will summarize the study as a whole, including methods and results. Next, the overall conclusions derived from the results of the study will be discussed. Finally, implications for further study on this general topic are provided.

Summary

The purpose of this study was to ascertain whether athletics directors at NAIA and NCAA Divisions I, II, and III institutions possessed similar temperament. Two patterns of data collection and analyses enabled the purpose to be analyzed. First, demographics relationships of both men and women athletics directors at four separate competitive divisions of intercollegiate athletics were analyzed. Next, the personality type and temperament styles of the directors were compared based on the same two factors.

The instrument used to determine types and temperaments was the Keirsey Temperament Sorter (Keirsey & Bates, 1984). Subjects were 100 randomly sampled athletics directors currently employed in accredited four-year colleges and universities located within the southeastern region of the United States. The four divisions of athletics that were studied, NCAA Division I, NCAA Division II, NCAA Division III, and the NAIA, were each represented

by 25% of the total sample (n=25/group). During May 1998, the 100 sample ADs were each mailed a packet containing all of the materials needed to participate in the study. Consent on the part of a subject was granted through her/his thorough completion and return of the demographics questionnaire and the Keirsey Temperament Sorter.

The study contained seven research questions. Demographics data and analyses answered the first two research questions, which pertained to AD demographics profiles based on division of athletics and also based on gender. Three research questions were used to determine if ADs at different collegiate affiliation institutions possessed similar personality types and temperament styles. The remaining two research questions posed the same dilemma of personality and temperament based on gender.

Athletics directors who participated in this study shared likenesses unto each other both across athletics divisions and across gender lines. The results indicated that the differences in boundaries set by governing bylaws between divisions of athletics are not carried to the athletics directors who oversee programs in those divisions. In other words, ADs are much more alike than are the programs that they manage.

Nearly all of the subjects were similar in age and had attained a high degree of education. Women were slightly younger, but the sample as a whole also was relatively young. Only a handful of subjects had earned less than some post-graduate education, and the most often mentioned degree programs were in specialized areas of education administration and sport

management. The subjects had also spent equivalent numbers of years both as an AD and at their current institutions. While women typically had less overall experience, the difference was minimal.

Temperament results revealed that three types accounted for the majority of subjects. Those types were ESTJ, ISTJ, and ESFJ. The grand majority of subjects were typed as STJs. It was apparent that these preferences and the qualities associated with them were more important than athletics directors' inner- or outer-world orientation preferences.

Subsequently, once temperaments were derived, SJs outnumbered the other temperament styles. Very few subjects were typed as the other three temperament styles. In fact, there were no SP temperaments in the whole sample.

These temperament results were true for total group data, for divisional data, and for gender data. Therefore, this study determined that there were no differences in personality type or temperament style for intercollegiate athletics directors. In general, athletics directors are a homogeneous group of people.

Conclusions

The following conclusions were derived from this study:

1. Demographics on athletics directors are similar across division of athletics and gender with regards to age, total number of years as an AD, and education level attained.

2. The personality type or temperament style an AD possesses is not as pertinent as are the management, leadership, interpersonal, and organizational skills she/he brings to the workplace.
 3. Intercollegiate athletics directors are a homogeneous group when compared by personality type preferences and temperament styles.
 4. Intercollegiate athletics directors of different competitive divisions exhibit similar preferences of personality type and temperament.
 5. Both men and women intercollegiate athletics directors are similar in their preferences of personality type and temperament style.
 6. The occupation of intercollegiate athletics director requires structure.
- Thus, an overall preference for Judging, or the ability to employ and follow Judging procedures in the workplace, will create a better functioning athletics department.

Implications

The results of this study were intended to provide a glimpse into the personality and temperament preferences of intercollegiate athletics directors at NCAA Divisions I, II, and III, and NAIA institutions. While it is believed that the sample used in this study is representative of athletics directors in general, some procedures for future research on similar topics are suggested.

The original sample of ADs selected for inclusion in this study was 100 men and women, twenty-five from each collegiate athletics division. Slightly over half of the original sample participated. Furthermore, the sample was limited to the southeastern United States. For future research a larger sample

size should be used, with each of the collegiate divisions representing a larger number of subjects. It is further implicated that research on ADs throughout the United States, not just one region, might have generate different results.

While the demographic makeup of intercollegiate athletics directors appears to be similar, there may be some aspects that significantly differ between divisions or across gender lines. Future studies of this nature should include a much more in-depth demographics questionnaire. More information regarding the educational backgrounds of subjects would be beneficial. A focus on the career pattern the subject followed to the AD position may show interesting differences, as well. The numbers and types of varsity athletics programs that the AD oversees also may have some bearing on research related to this topic.

Athletics directors are not the only persons who manage the athletics department. There are associate ADs, coaches, and other directors that manage individual departments. It is important for the AD to understand their own preferences and those of their subordinates, but the primary need for this type of research is to enhance the workplace. That includes everyone. To fully realize the benefits associated with personality and temperament testing, the whole athletics department should participate. Research on the perceived personalities and temperaments of ADs as seen by their staffs would be of interest. Further, associates, coaches, and administrative staff personnel should also take these inventories. Once everyone has participated, then an

AD and her/his staff can maximize the results that such knowledge about others can produce.

One of the problems with this study resulted from the high percentage of undetermined preferences. Difficulty was manifested in the data scoring and analyses phases. It is possible that another type of personality profile inventory, one that is much more detailed and lengthy, would alleviate this problem. Another option would be to conduct the study on a test-retest format to determine if any changes were made. This might allow some of those undetermined tie scores to be broken in favor of one preference or another, thus producing a clearer picture of the athletics director personality and temperament profile.

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APPENDICES

APPENDIX A
COVER LETTER TO ALL SUBJECTS

Athletic Director
College/University Name
Address
City, State Zip Code

Date

Dear Athletic Director,

As a graduate student with a concentration in Sport Administration at The University of Tennessee, Knoxville, I am conducting a research study for my masters thesis entitled Temperaments of NCAA Divisions I, II, and III, and NAIA Athletics Directors.

The purpose of this study is twofold. The initial purpose is to determine whether there are similarities in the temperaments of the persons who occupy these positions. The second purpose is to determine if any relationship exists between the temperaments of the directors and the different affiliated levels of intercollegiate athletics. The instrument being utilized to determine this information is a 70-item, self-report Keirsey Temperament Sorter. There is no more risk involved in responding to this questionnaire than in taking any other personality or temperament test. However, if you have any concerns or questions, please feel free to contact us by phone or in writing.

As an intercollegiate athletics director, you must interact with many others and also must make vital decisions each day. By participating in this study, you will know and understand your personality type and temperament and methods of decision making. If this knowledge could be passed on to each employee in your office, then you would be able to curtail your management and leadership styles to suit the comforts of each individual subordinate. Ultimately, this could lead to a more enjoyable and productive workplace for all.

It is my hope that you will take 15-20 minutes to complete the enclosed survey and demographic questionnaire. Your consent to participate will be served by simply completing both the Keirsey Temperament Sorter and the demographic questionnaire and returning them to me in the self-addressed stamped return envelope I have provided before June 22, 1998.

Your participation in this study is strictly voluntary, and you may withdraw or discontinue participation at any time without penalty or loss of benefits. The duration of your participation in this study will be only the time required to complete the enclosed questionnaires and return them to the address at the bottom of this letter. Should you choose to take part in this study, I will be pleased to send you a copy of the results of the study.

All of your responses to this survey will be held in the utmost confidentiality. No individual names or names of institutions will ever be identified or attached to the data, and only group information will be reported. The only individuals who shall have access to the data are my advisor and I. I trust you will respond as accurately as possible to all questions.

Thank you in advance for your attention, assistance, and cooperation.

Sincerely,

Michael Robert Morris
M. S. Candidate

Pat Beitel, Ed.D.
Professor and Advisor

Pat Beitel and/or Robert Morris
The University of Tennessee, Knoxville
Sport and Physical Activity Unit
1914 Andy Holt Avenue, Room 322
Knoxville, Tennessee 37996
(423) 974-5111

APPENDIX B
DEMOGRAPHICS QUESTIONNAIRE

DEMOGRAPHICS QUESTIONNAIRE

All reported data will be held confidential and only group analysis will be used.

1. Sex: 1. Female _____ 2. Male _____
2. Age: 1. Under 30___ 2. 30-39___ 3. 40-49___ 4. 50-59___ 5. 60+___
3. Total numbers of years as an Athletics Director:
 1. _____ Less than 5 years.
 2. _____ 5-9 years.
 3. _____ 10-14 years.
 4. _____ 15-24 years.
 5. _____ 25 + years.
4. Total number of years as an Athletics Director at current institution:
 1. _____ Less than 5 years.
 2. _____ 5-9 years.
 3. _____ 10-14 years.
 4. _____ 15-24 years.
 5. _____ 25 + years.
5. At what 4-year collegiate institution level was your first AD position?
 1. _____ NAIA Division I or II.
 2. _____ NCAA Division III.
 3. _____ NCAA Division II.
 4. _____ NCAA Division I
 5. _____ Other (please specify)_____
6. Please indicate the highest level of your education:

1. _____ High School	5. _____ Masters Degree
2. _____ Two-year College	6. _____ Specialist Degree
3. _____ Baccalaureate	7. _____ Doctoral Degree
4. _____ Post-baccalaureate	
7. Area of emphasis of highest degree: _____

Thank you in advance for your assistance and cooperation. Please include this questionnaire with the 70-item Keirsey Temperament Sorter survey in the pre-addressed stamped return envelope by June 22, 1998.

APPENDIX C
KEIRSEY TEMPERAMENT SORTER

KEIRSEY TEMPERAMENT SORTER

There are no "right" or "wrong" answers to the questions on this survey. Your answers will help show how you like to look at things and how you like to go about deciding things. Knowing your own preferences and learning about other people's can help you understand where your special strengths are, what kinds of work you might enjoy and be successful doing, and how people with different preferences can relate to each other and be valuable to society.

Read each question carefully, and indicate your answer by circling A or B. Do not think too long on any question, skip it, and go on to the next item. The value of any item skipped will not be used in determining your type.

1. At a party, do you:
 - A. Interact with many, including strangers?
 - B. Interact with a few, known to you?
2. Are you more:
 - A. Realistic than speculative?
 - B. Speculative than realistic?
3. Is it worse to:
 - A. Have your "head in the clouds"?
 - B. Be "in a rut"?
4. Are you more impressed by:
 - A. Principles?
 - B. Emotions?
5. Are you more drawn toward the:
 - A. Convincing?
 - B. Touching?
6. Do you prefer to work:
 - A. To deadlines?
 - B. Just "whenever"?
7. Do you tend to choose:
 - A. Rather carefully?
 - B. Somewhat impulsively?
8. At parties, do you:
 - A. Stay late, with increasing energy?
 - B. Leave early, with decreased energy?

9. Are you more attracted to:
 - A. Sensible people?
 - B. Imaginative people?
10. Are you more interested in:
 - A. What is actual?
 - B. What is possible?
11. In judging others, are you more swayed by:
 - A. Laws than circumstances?
 - B. Circumstances than laws?
12. In approaching others, is it your inclination to be somewhat:
 - A. Objectively?
 - B. Personal?
13. Are you more:
 - A. Punctual?
 - B. Leisurely?
14. Does it bother you more having things:
 - A. Incomplete?
 - B. Completed?
15. In your social groups, do you:
 - A. Keep abreast of others' happenings?
 - B. Get behind in the news?
16. In doing ordinary things, are you more likely to:
 - A. Do it the usual way?
 - B. Do it your own way?
17. Writers should:
 - A. "Say what they mean, and mean what they say"?
 - B. Express things more by use of analogy?
18. Which appeals to you more:
 - A. Consistency of thought?
 - B. Harmonious human relationships?
19. Are you more comfortable in making:
 - A. Logical judgments?
 - B. Value judgments?

20. Do you want things:
A. Settled and decided?
B. Unsettled and undecided?
21. Would you say you are more:
A. Serious and determined?
B. Easy-going?
22. In phoning, do you:
A. Rarely question that it will all be said?
B. Rehearse what you will say?
23. Facts:
A. "Speak for themselves"?
B. Illustrate principles?
24. Are visionaries:
A. Somewhat annoying?
B. Rather fascinating?
25. Are you more often:
A. A cool-headed person?
B. A warm-hearted person?
26. Is it worse to be:
A. Unjust?
B. Merciless?
27. Should one usually let events occur:
A. By careful selection and choice?
B. Randomly and by chance?
28. Do you feel better about:
A. Having purchased?
B. Having the option to buy?
29. In company, do you:
A. Initiate conversation?
B. Wait to be approached?
30. Common sense is:
A. Rarely questionable?
B. Frequently questionable?

31. Children often do not:
- A. Make themselves useful enough?
 - B. Exercise their fantasy enough?
32. In making decisions, do you feel more comfortable with:
- A. Standards?
 - B. Feelings?
33. Are you more:
- A. Firm than gentle?
 - B. Gentle than firm?
34. Which is more admirable:
- A. The ability to organize and be methodical?
 - B. The ability to adapt and make do?
35. Do you put more value on the:
- A. Definite?
 - B. Open-ended?
36. Does new and non-routine interaction with others:
- A. Stimulate and energize you?
 - B. Tax your reserves?
37. Are you more frequently:
- A. A practical sort of person?
 - B. A fanciful sort of person?
38. Are you more likely to:
- A. See how others are useful?
 - B. See how others see?
39. Which is more satisfying:
- A. To discuss an issue thoroughly?
 - B. To arrive at agreement on an issue?
40. Which rules you more:
- A. Your head?
 - B. Your heart?
41. Are you more comfortable with work that is:
- A. Contracted?
 - B. Done on a casual basis?

42. Do you tend to look for:
A. The orderly?
B. Whatever turns up?
43. Do you prefer:
A. Many friends with brief contact?
B. A few friends with more lengthy contact?
44. Do you go more by:
A. Facts?
B. Principles?
45. Are you more interested in:
A. Production and distribution?
B. Design and research?
46. Which is more of a compliment:
A. "There is a very logical person"?
B. "There is a very sentimental person"?
47. Do you value in yourself more that you are:
A. Unwavering?
B. Devoted?
48. Do you more often prefer the:
A. Final and unalterable statement?
B. Tentative and preliminary statement?
49. Are you more comfortable:
A. After a decision?
B. Before a decision?
50. Do you:
A. Speak easily and at length with strangers?
B. Find little to say to strangers?
51. Are you more likely to trust your:
A. Experience?
B. Hunch?
52. Do you feel:
A. More practical than ingenious?
B. More ingenious than practical?

53. Which person is to be complimented: one of
A. Clear reason?
B. Strong feeling?
54. Are you inclined more to be:
A. Fair-minded?
B. Sympathetic?
55. Is it preferably mostly to:
A. Make sure things are arranged?
B. Just let things happen?
56. In relationships, should most things be:
A. Renegotiable?
B. Random and circumstantial?
57. When the phone rings, do you:
A. Hasten to answer it first?
B. Hope someone else will answer?
58. Do you prize more in yourself:
A. A strong sense of reality?
B. A vivid imagination?
59. Are you drawn more to:
A. Fundamentals?
B. Overtones?
60. Which seems the greater error:
A. To be too passionate?
B. To be too objective?
61. Do you see yourself as basically:
A. Hard-headed?
B. Soft-hearted?
62. Which situation appeals to you more:
A. The structured and scheduled?
B. The unstructured and unscheduled?
63. Are you a person that is more:
A. Routinized than whimsical?
B. Whimsical than routinized?

64. Are you more inclined to be:
A. Easy to approach?
B. Somewhat reserved?
65. In writings, do you prefer:
A. The more literal?
B. The more figurative?
66. Is it harder for you to:
A. Identify with others?
B. Utilize others?
67. Which do you wish more for yourself:
A. Clarity of reason?
B. Strength of compassion?
68. Which is the greater fault:
A. Being indiscriminate?
B. Being critical?
69. Do you prefer the:
A. Planned event?
B. Unplanned event?
70. Do you tend to be more:
A. Deliberate than spontaneous?
B. Spontaneous than deliberate?

VITA

Michael Robert Morris was born May 13, 1968 in Topeka, Kansas. Rob participated in scholastic, intramural, and recreational athletics through graduation from Shawnee Heights High School in 1986.

Rob attended Washburn University in Topeka and majored in Physical Education with concentration in Exercise Physiology. During his years at Washburn, Rob worked part-time in the Sports Information Office of the Athletics Department and spent three years associated with the Washburn baseball program. Rob served as the Student Assistant Sports Information Director for the 1992-93 academic year. He graduated from Washburn with a Bachelor of Arts degree in December 1993. Following graduation, Rob worked in retail management at a sports apparel franchise and continued part-time employment in the Sports Information Office.

In April 1996, Rob relocated to Knoxville, Tennessee. He served as a concessions manager for the Knoxville Smokies Baseball Club that season. In the fall of 1996, Rob commenced graduate study in Sport Administration at The University of Tennessee, Knoxville. Rob served as a Graduate Teaching Associate in Sport and Physical Activity for the 1996-97 academic year, and has since served in part-time positions with the Men's Athletics Department in the Office of Student Life and as a student assistant at the Student Counseling Services Center.

Rob received his Master of Science degree in Human Performance and Sport Studies in December 1999. He began a Doctor of Philosophy degree

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