

COACHING LEADERSHIP BEHAVIORS IN SUCCESSFUL WOMEN'S
COLLEGIATE ROWING PROGRAMS

A Dissertation
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DOCTOR OF PHILOSOPHY

by
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ABSTRACT

Coaching Leadership Behaviors in Successful Women's
Collegiate Rowing Programs

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The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

Participants consisted of 168 female collegiate rowers and coxswains and 22 coaches from NCAA Division I institutions. In addition to demographic questions, each coach was asked to complete the Leadership Scale for Sport (LSS) - Coaches' Version and each athlete was asked to complete both the LSS - Preference version and actual

Behavior version. In addition to the questionnaire, five coaches were interviewed to supplement the data gathered.

Athletes provided information via the surveys to assess their respective coach's leadership behaviors, while also providing information about their own preferred coaching leadership behaviors. Coaches provided a self-assessment of their own coaching leadership behaviors via the survey or via the survey and substantiated through the interview (if they participated in the interview process).

The quantitative data were analyzed using a variety of descriptive and bivariate statistics. Demographically, the participants were quite similar, with little variation in age or race and no variation in gender (athletes).

After analyzing the data, statistical significance was found using ANOVA for athletes' assessment of their respective coach's behavior based on their team position. Athletes in the 1st eights ranked the coaches higher in social supportive behaviors than did athletes in other boats.

The qualitative data were analyzed using guidelines for phenomenological research. Four themes resulted from this data analysis - coaching knowledge, athlete management, shared values, and team engagement. Each of

these themes is considered critical to leading successful women's collegiate rowing teams.

Further research would prove helpful using a greater number of athletes and a stronger focus on qualitative methods to garner additional data.

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It is also important for me to acknowledge and thank the women and their coaches who agreed to participate in this study. I am now aware they had been asked to participate in a number of studies simultaneously, so for those who chose to complete these despite the huge demands on their schedule, I am thankful for their time and energy. Their insights were greatly appreciated. Special thanks go out to the coaches who spent time with me on the phone completing follow-up interviews.

I would like to thank my parents and brothers for having to hear about this dissertation and its timelines for quite some time now. Thank you for believing in me and motivating me to finish.

Finally, I would like to thank my husband, Paul Coomes, for his endless support. As the unofficial leader of my support team, he has listened to countless hours of banter on the topic of this dissertation, been solicited for his opinion at the most inopportune times, and asked to review countless charts and data sets. I know there were many times he wished I would simply finish this so we could be "normal." I doubt we will ever be "normal," Paul, but I know you are happy it is complete. Thank you.

DEDICATION

To my grandparents, Orville and Norma Turner, who generated in me a desire to learn something new every day. I am so sorry you both missed seeing this, I am sure you would have been so proud of this accomplishment. I hope and pray you know you each had a hand in this.

Additionally, I dedicate the completion of this degree to my children, Turner and Noah. There were many times I wanted to be with you rather than research or write, and I felt "mother's guilt" leaving you, but I always held onto the belief that it was most important for you to know your mother could accomplish this. I did it, so now we can play!

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CHAPTER 1

INTRODUCTION

Leadership is one of the more ambiguous topics among researchers in a number of disciplines - most notably in the areas of business, the military, sociology, psychology, and in more recent history - sport. Whether in sport or business environments, leaders are meant to encourage and inspire groups, in essence to achieve more than they would have without the leaders. The ambiguity associated with leadership research is best explained as a lack of a prescriptive solution for those wishing to excel in leadership or those interested in recruiting people with "confirmed" leadership qualities that will positively impact a group.

Research in the past few decades has shown leadership traits and behaviors vary widely and can change to adapt to situations and people. Additionally, it has been asserted that different situations and groups of followers may require different types of leadership at different points in the life of the group. Since leadership behavior has this unique ability to adapt to situations and people, it

is an area of great interest to researchers and practitioners in both sport and business.

Of particular interest is the more recent leadership theory of transformational leadership. Supporters of transformational leadership place a high degree of importance on this ability to change leadership strategies and styles to meet the needs of the situation and followers. In the landmark book, *Transformational Leadership*, Tichy and Devanna (1990) argue that "it is up to the transformational leader to understand social networks, then to do a diagnosis of the current and desired state, and finally to call on the multiple set of tools needed to execute the difficult trapeze act of letting go and reaching the new beginning by breaking old ties and constructively building new ones" (p. 213). This statement, while intended to describe the current leadership needs in the corporate business world, is an excellent summary of the leadership challenges faced by coaches in sport today. The team concept in sport lends itself to frequent commonalities and often parallels the business world in terms of leadership needs and the characteristics of effective leaders.

Furthermore, it has been asserted by many that effective leadership may lead to more positive outcomes in a sport context. For instance, when given two teams of equal skill sets and experience, the team with a strong, effective leader may perform at a higher level than the team with an ineffective leader. This implies that leadership may be a strong force in terms of coaching.

Players, coaches, and administrators are typically interested in ways to improve the win-loss record of their teams. In doing so, research suggests that leadership variables may play a key role in this. Throughout history many different leadership styles and characteristics have been observed on successful teams. This information leads to the conclusion that there are other key variables associated with successful leadership – a concise, easy to follow leadership “formula” does not exist.

Therefore, an important component of this concept includes the leader’s understanding of both the situation and the followers. If coaches can adapt to the desired leadership of their respective teams they may be more successful than if they do not adapt and simply use their own preferred leadership style.

Need for the Study

There currently exists a large gap in the literature concerning preferences of female intercollegiate athletes in terms of coaches' leadership behaviors and the resulting competitiveness of these teams as it relates to their coach's leadership behaviors. Most gender related studies concerning leadership variables and the impact on a team's successful performance examine the coach's gender as it relates to their leadership style. Minimal attention has been given to the unique leader behavior preferences of elite female athletes.

With the large influx of female athletes, this is a necessary area to examine. Of those research studies that do address the unique desires of female athletes, little attention is paid to the impact of congruency between their preferences and the coach's leader behaviors and how this congruency or lack thereof impacts the overall success of the team.

An additional limitation of these previously published studies is the sports used to conduct the research. There are a variety of "coaching prescriptives" in the popular literature, but sources cited for these suggested coaching

guidelines are not specific to the sport of rowing but, rather, are gathered from guidelines used for coaches of other sports.

This is of critical concern because the sport of rowing typically attracts a specific type of athlete and these athletes may have different or varying leadership needs than basketball, soccer, or volleyball players in order to be successful. The sport of rowing attracts a mix of women who may or may not have previously participated in a competitive sport environment. Due to the nature and numbers of people able to participate in the sport, previous competitive sport participation is not a requirement for rowing at the collegiate level. Athletes joining their collegiate rowing team generally have one of three backgrounds - (a) those with previous experience in rowing, (b) those with competitive sport experience in a sport other than rowing, and (c) those with no competitive sport experience.

University athletic departments nationwide have been attempting to increase participation rates among women in collegiate sports. It has been noted in the literature that athletes tend to commit to and stay involved in

programs that do well and are successful. However, while there have been considerable attempts at understanding the variables impacting successful men's teams, there is a void of research and subsequent literature concerning the unique and specific elements of a successful women's team. These variables, from the perspective of coaching leadership, will be examined in this study. Hopefully this effort will begin a line of research to encourage others in gender related research to look into additional known factors impacting success such as team climate, group cohesion, motivation, etc., that may be unique to high performing women's athletic teams.

Purpose of the Study

The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches

believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

Research Questions

In an effort to understand the leader behaviors of successful NCAA Division I women's rowing coaches, the following research questions were proposed.

1. What leadership behaviors do successful and other coaches exhibit from their perspectives?
2. From the perspective of the athletes of successful or other coaches, what type of leader behaviors do their coaches exhibit?
3. What type of leader behaviors do athletes on successful or other women's rowing teams prefer?
4. Does an athlete's team position, specifically her boat placement (1st boat, 2nd boat, 3rd boat, etc.), affect her assessment of the leader behaviors of their head coach?

Limitations

The following limitations were present in this study:

1. The honesty of the responses of each participant could not be measured. Additionally, some participants may not have filled out both questionnaires because they appear to be similar.

2. There was no face-to-face interaction prior to administering the Leadership Scale for Sports (LSS) survey instrument. Therefore, there was no opportunity for participants to ask questions or to provide clarification while completing the questionnaire.

3. The athletes were asked to respond to the LSS in reference to their Head Coach, but these responses may have been influenced by assistant coach behaviors as well.

Delimitations

The following delimitations were present in this study:

1. The number of teams participating did not include the entire population of 86 NCAA Division I women's rowing programs.

2. Participants were college females ranging between 18-25 years of age and their respective head coaches.

3. The athletes participating either were currently coached by the head coach or have been in the past. This did not include first-year rowers on the team as they did not have sufficient contact with the team and coach at the time of survey completion.

4. Leadership behaviors were measured by the Leadership Scale for Sports and may not be 100% accurate in defining the leadership style of the coach. The planned follow-up interviews with coaches attempted to address this concern.

Definition of Terms

Actual Leader Behavior: Leader behavior exhibited by the coach.

Autocratic Behavior: Coaching behavior that involves independence in decision-making and stresses personal authority (Reimer & Chelladurai, 1995).

Democratic Behavior: Coaching behavior that allows greater athlete participation in decisions pertaining to group goals, practice methods, and game tactics and strategies (Reimer & Chelladurai, 1995).

Head Coach: The current coach for the women's rowing team in the highest coaching position on the team. The head coach must have been in this position for a minimum of

three years with a hire date of September 2004 or prior to be considered for this study. This requirement ensures the data were representative of only those coaches who had sufficient time to impact the team's ability to receive an NCAA national championship bid.

Leader Behavior: Leader behavior has been defined by the Multidimensional Model of Leadership (Chelladurai, 1978, 1984; Chelladurai & Carron, 1978; Zhang, Jensen, & Mann, 1997). The MML provides an association between three different types of leader behavior including required behavior, preferred leader behavior, and actual leader behavior. The model assesses the leader, the group members, and the situation as they relate to one another within the sport context (Sherman, Fuller, & Speed, 2000).

NCAA Championship Invitation: An annual selection bid to the NCAA Women's Rowing Championship through the published evaluation criteria of the NCAA Women's Rowing Subcommittee. The 2007 selection procedure, similar to previous years, describes the criteria as eligibility and availability of student-athletes, end of season championship results, regional ranking, late season performance, head-to-head results, results versus a team

already selected, results versus common opponents, and results versus a regionally ranked team (NCAA, 2006).

NCAA Division I Women's Rowing Team: The NCAA Division I currently includes 86 teams from five regions in women's rowing – Central (16 teams), Mid-Atlantic (28 teams), New England (14 teams), South (13 teams), and West (15 teams).

Positive Feedback: Coaching behavior that reinforces an athlete by recognizing and rewarding good performance (Reimer & Chelladurai, 1995).

Preferred Leader Behavior: Coaching behavior preferred by the athletes on a team (Reimer & Chelladurai, 1995).

Required Leader Behavior: Coaching behavior best fitting the team and its current situation (Reimer & Chelladurai, 1995).

Social Support: Coaching behavior characterized by a concern for the welfare of individual athletes, positive group atmosphere, and warm interpersonal relations with members (Reimer & Chelladurai, 1995).

Success: For the purposes of this study, success was defined in terms of invitations received to participate in the NCAA Women's Rowing Championship, as a team or with an at-large boat, in the past 6 years. After analysis of the

teams participating, 5 of the 12 participating teams were deemed successful.

Team Position: A rower's position on the team of either 1st 8+, 2nd 8+, 3rd 8+, 1st 4+, 2nd 4+, coxswain, injured, or manager. Athletes self-reported their expected position on the team during the upcoming spring racing season at the time they completed the survey.

Training and Instruction: Coaching behavior aimed at improving the athletes' performance by emphasizing and facilitating hard and strenuous training; instructing them in skills, techniques and tactics of the sport; clarifying the relationship among the members; and structuring and coordinating the members' activities (Reimer & Chelladurai, 1995).

CHAPTER 2

REVIEW OF LITERATURE

The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

The review of literature in relationship to this research purpose is divided into the following sections: (1) coaching in the sport of rowing, (2) collegiate women's rowing, (3) gender differences in preferences for coaching leadership behaviors, (4) coaching behaviors in association with successful women's collegiate athletics, (5) contemporary theories of leadership, and (6) the

Multidimensional Model of Leadership and the Leadership Scale for Sports. The review provides a framework for understanding relevant research and its relationship to the purpose of this study. In addition, gaps in the literature will demonstrate the need for this study. While there is a surplus of research on leadership, there is very little sport-specific or gender-specific leadership research available to academicians and practitioners. To this end, the leadership literature does not lend itself well to providing specific, tangible concepts for coaches to implement or learn from.

Coaching in the Sport of Rowing

Published articles or research in the area of coaching the sport of rowing are virtually non-existent. Most rowing manuals or articles attempting to discuss the process of effective coaching do so by using literature from other sports' publications, rather than rely on credible sport-specific research. While this is an unfortunate situation for those coaching one of the fastest growing sports in the United States, it does provide additional support concerning the need for this study.

Previous to the past decade, rowing was considered to be an elite sport, largely comprised of Anglo-Saxon men from wealthy families. This is no longer the case. While it is slow to appeal to ethnic and racial minorities, the gender gap has narrowed significantly. The advent of the sport of rowing's acceptance into the NCAA as a women's sport has prompted exponential growth and a need for sport- and gender-specific coaching literature. According to the NCAA records, there are currently 86 Division I, 15 Division II, and 43 Division III schools with women's rowing programs for a total of 144 collegiate programs in the United States (<http://www.ncaa.org/wps/ncaa?ContentID=81>, retrieved August 18, 2008).

Programs recognized by the NCAA are allowed to have up to 20 scholarships, many more than most women's sports, further demonstrating its growth and large numbers. In contrast, there are far fewer men's collegiate programs and the sport is not recognized by the NCAA.

One author, John McArthur (1997), published a book, *High Performance Rowing*, and included a chapter on effective coaching. The chapter includes suggestions for

coaches such as athlete involvement, allocating responsibility, involving the coxswain, coaching on the ergometer, recognizing strengths and weaknesses, planning and preparation, and being organized. These types of strategies are indeed effective for a coach who is just beginning to learn how to coach a rowing team, but they do not assist those looking to achieve a higher degree of success. To provide opportunities for athletes to become successful in elite rowing, one must use additional coaching tools and have access to a greater depth of resources.

While these topics presented by McArthur address basic coaching concepts, they are not intended to assist elite level coaches. Most coaches come to the sport of rowing through a rowing background with little to no coaching education. Only recently has the sport's national governing body, USRowing, created coaching clinics and certifications. Coaching clinics began in 1999. The certifications include four quadrants of focus- safety, learning, teaching, and speed. Each of these areas was then developed into specific knowledge areas. Safety topics include risk management and injury prevention,

management, and care. The learning component covers athlete growth, development, and learning and the social/psychological aspects of coaching. The third quadrant of teaching includes teaching and administration and professional development of the coach.

Utilizing these quadrants, there are three levels of certification. Each of these levels is defined as follows:

Level I: Initiation Level (debuted 12/99)

This level is designed for someone who is seriously considering coaching the sport of rowing, has been coaching for less than one year, and who has not previously been USRowing Coaching Education Program certified.

Level II: Foundation Level (debuted 12/99)

This level is designed for a beginning coach who has held a USRowing Coaching Education Program Level I certificate for at least six months. The coaching education manager can grandfather coaches into this program if the candidate has been coaching for at least one year.

Level III: Intermediate Level (debuted 12/00)

This level is designed for an intermediate coach, who has been USRowing Level II certified for at least one year and may hold a position such as a first-time high school, club, or collegiate head coach or may be an experienced assistant coach. The coaching education manager can grandfather coaches into this program if they have 5 years of coaching experience. (USRowing Association, 2005, para. 9)

In reviewing these coaching certification levels, it appears the gap begins after high school coaching or assistant coaching positions. USRowing, the governing body

of the sport, is the only organization offering sport specific coaching education for coaches of rowing. Therefore, those wishing to coach at a higher and more competitive level do not have a body of knowledge to refer to within their sport. Their options may include non-sport-specific sources, the internet, insight from fellow coaches, and self-education through trial and error. This further demonstrates the need for information on how coaches achieve success at higher levels.

Collegiate Women's Rowing

The lack of research in this area is, again, a major reason for this study. While women's rowing is one of the fastest growing sports in the NCAA, there is little research in the area of leadership and leader behaviors most commonly exhibited among successful women's rowing teams for coaches and administrators.

Rowing is perhaps one of the first documented sports in history that women competed in both nationally and internationally. While women were not allowed to participate in Olympic level rowing until the 1976 Montreal Olympics, there are quite a few documented events much earlier to that. For example, the 1870 cover of Harper's

Weekly featured a photo of a women's doubles race. The famed race between the men of Oxford University and Cambridge University permitted women's events beginning in 1927

(http://en.wikipedia.org/wiki/Sport_rowing#Women.27s_rowing).

Women's rowing became an NCAA emerging sport for women in 1996. The NCAA defines an emerging sport as a sport recognized by the NCAA that is intended to provide additional athletics opportunities to female student-athletes

(http://ww1.ncaa.org/membership/membership_svcs/emerging_sports/home.html). When member institutions of the NCAA wish to create a new emerging sport they must file a proposal to do so. The NCAA process states "if an activity meets the definition of a sport, then a proposal and 10 supporting letters are submitted to the Committee on Women's Athletics (CWA). The proposal has to include documentation and supporting information that demonstrates that the sport meets the criteria received by the CWA when assessing the viability of the sport."

(http://ww1.ncaa.org/membership/membership_svcs/emerging_s

[ports/criteria](#), para. 1) At the time women's rowing became an emerging sport, there were already numerous rowing programs in the United States for women at the university level; however, it did not receive the attention it currently enjoys now until becoming an officially recognized sport of the NCAA. Currently there are numerous Division I, Division II, and Division III schools with women's rowing programs recognized by the NCAA. These include 86 Division I programs, 15 Division II programs, and 42 Division III programs. Numerous other schools also provide the opportunity for women to row at the club level. The numbers of women on each team varies greatly, with teams ranging anywhere from 12 to 75 members. Based on these figures, it is clear this is a large population of collegiate student athletes and the current literature reviewing the leadership of successful women's rowing teams is nonexistent. In the popular coaching text for rowing, *High Performance Rowing* by John McArthur (1997), no mention is made concerning special considerations when coaching female athletes. This is common in the sport of rowing due to the lack of historic participation at a competitive level and a general lack of understanding of the unique

desires of female athletes when it comes to coaching leadership. While rowing is not a revenue generating sport, athletic administrators are increasingly concerned with the performance of their teams. This concern and desire to create nationally recognized, top-level athletic programs is the basis for this research.

The NCAA Championship Regatta

The NCAA Championship Regatta has been held annually since 1998. The summary for bid selection to this regatta is determined as follows:

The NCAA Division I Women's Rowing Championships are comprised of 312 total competitors (344 including spares) and provides for three events (I Eights, II Eights and Fours), each covering a 2,000-meter course. Twelve teams will be selected and each team is required to field two boats of eight rowers each and one boat of four rowers. In addition, four eight-women boats from institutions not represented in the team competition will be selected. There will be no fours selected on an "at-large" basis. Individual rowers are not permitted to double at championships (NCAA Division I Championship Handbook, p. 6).

The selection procedures are outlined as follows:

Participants in the 2007 championships will be selected by the NCAA Division I Women's Rowing Committee. One team from each region will be selected. Race results against boats using male coxswains will not count toward rankings or selections. Participation by male coxswains is not permitted. In accordance with

Bylaw 31.3, the following criteria will be used in selecting teams and individual boats:

- Eligibility and availability of student-athletes.
- End of Season championship results.
- Regional ranking.
- Late-season performance.
- Head-to-head results.
- Results versus team already selected.
- Results versus common opponents.
- Results versus regionally ranked team.

The committee would like to strongly encourage teams to travel out of their regions for competition against ranked teams.

Note: In order to be selected for the championship, in the varsity eight and second varsity eight boats, 50 percent of the declared lineup, excluding coxswains, must race together in that event at least once during the regular season. There is open substitutions for the Four Boat. For ranking and selection purposes, every race result counts regardless of lineup. The committee reserves the right to consider all results from spring competition, including those raced on courses that deviate from the recommended 2,000-meter distance. [However, due to uncontrollable circumstances that would not allow for a 2,000-meter race, more consideration will be given to races closest to that distance.] (NCAA Division I Championship Handbook, p. 6)

This championship regatta provides a platform to study the most successful teams in collegiate women's rowing. It can be asserted that coaches and their teams repeatedly receiving invitations to participate in this elite regatta are successful. In comparison to their peers, they have repeatedly and consistently performed at a higher level in competition.

Gender Differences in Preferences for Coaching
Leadership Behaviors

Additionally useful to the purpose of this research is an understanding of and a review of research in the area of leadership preferences based on the gender of the follower. Both academic and popular literature indicates significant differences along gender lines for coaching preferences among athletes. It is clear men and women have varying preferences for coaching leadership, yet suggestions for effective coaching do not reflect this knowledge.

Consensus among studies (Chelladurai & Saleh, 1978; Sherman, Fuller, & Speed, 2000; Terry, 1984; Terry & Howe, 1984) indicates male athletes demonstrate a greater preference for autocratic and social supportive coaching leadership behaviors than do female athletes, while female athletes demonstrate a greater preference for democratic coaching leadership behavior as compared to their male counterparts.

This is unique because popular literature suggests women require more social supportive constructs to be successful. It would be useful to further support or provide alternative data to this previous research. It is

not clear, due to a lack of sufficient data, whether or not women require or prefer social supportive behavior on the part of their coach or if it is democratic behavior they prefer – a chance to be a part of the decision making process. Due to the large number of women on a rowing team, the sample used in this study will be helpful in clarifying these previous studies.

Further studies have been designed to look at leadership preferences of collegiate athletes and the differences that may exist between male and female athletes in terms of their coaching leadership behavior preferences. One such study (Beam, Serwatka, & Wilson, 2004) examined the preferred leadership behaviors of NCAA Division I and NCAA Division II student-athletes. The study included 509 student-athletes from four NCAA Division I schools and six NCAA Division II schools. The purpose of this study was to examine the differences in behavior preferences using the conceptual framework of the multidimensional model of leadership to confirm and extend previous investigations, but specifically to investigate differences among student-athletes' preferred leadership behavior for their coaches based on gender of the student-athletes, and the

competition levels, task dependence, and task variability of the sports in which they participate (Beam et al., 2004). The researchers used the Revised Leadership Scale for Sport (RLSS) to gather data from their participants. The RLSS is a revision of the LSS which includes an additional sixth variable for assessment—situational consideration. The results from this research indicate a difference among genders for preferred leadership. Statistically significant differences were found among gender, task dependence, and task variability, but no difference was found for competitive level of the athletes (differentiated by attendance at either an NCAA Division I or NCAA Division II school) (Beam et al., 2004).

“To assess task variability, athletes were divided into categories by sport— closed or open. Those considered as open sports included sports when athletes use an object of some sort that they must follow to participate in the sport, such as basketball, baseball, or tennis. Closed sports, inversely, demand the athlete participate in an environment that remains relatively unchanging in terms of external stimuli, such as golf or cross country” (Beam et al., p. 5).

To assess task dependence, the researchers looked at athletes in terms of the degree to which the student-athlete must interact with others to complete their sport-related tasks. Therefore, independent sports would include golf, tennis, and cross country, whereas an interdependent sport would include sports such as baseball, basketball, and volleyball (Beam et al., 2004).

The data demonstrated male athletes have a statistically significant tendency towards autocratic and social support behaviors in coaching, whereas female athletes preferred training and instructional behaviors (Beam et al., 2004).

While this is a discovery of note, it does not address the success factor of these females' athletic teams, but simply addresses the preferences of these athletes. It is critical to understand the leadership preferences of successful and elite athletes and the corresponding actual behaviors of their coaches to identify common behaviors of successful coaches.

In a similar study researchers used the LSS to look at gender-based preferred coaching behaviors in Australian sports (Sherman et al., 2000). Data from this study

contradict the previously referenced study. In this research study, statistical significance was not found among gender for varied preferences. Both male athletes and female athletes showed preferences toward positive feedback, training and instruction, and democratic behaviors as assigned by the LSS. Social support and autocratic behaviors were therefore not preferred by either group (Sherman et al., 2000). While this study only included Australian sport participants and may not include uniquely American cultural issues regarding gender, the authors assert that perhaps the Multidimensional Model of Leadership should not be focused as heavily on the members' characteristics. While there is societal pressure to look for differences among males and females in gender-based preferences, these may not be as rampant as originally thought. Again, this research was conducted in Australia, using only three sports, and may not be applicable in the international sport context. Cultural norms and/ or differences may impact the results found in this research. It does pose the issue of conflicting data within this topic of research. Additionally, the results from this

research may not be applicable to the uniqueness of women's rowing and its culture.

Additionally, most scholars will still agree there are very real gender differences and neglecting this knowledge may be detrimental to those in leadership positions. While the following discussion is not exhaustive of each of the areas in which men and women are different, it reviews the differences of particular interest to the process of coaching. Among these critical areas are the importance of understanding differences exist, approaches to competitive play, and methods of learning.

In *Gender and Competition: How Men and Women Approach Work and Play*, author Kathleen J. DeBoer (2004) argues that we have now moved from this idea of political correct behavior of eliminating differences and embracing similarities at the expense of female athletes to an embracing of differences along the gender line. Many coaches incorrectly view female athletes as less competitive than male athletes, but often this conception occurs as a result of a lack of information concerning gender processes.

Nancy Chodorow (1978) indicated in her research "nearly universal differences that characterize masculine and feminine personality and roles." She found these differences to reside in the inherent masculine and female identities. Men see themselves as separate beings in the world and seek to differentiate themselves from others. Women, on the other hand, attempt to make connections with others as a way in which to identify themselves and to create community. Based on this concept, DeBoer (2004) writes,

Each gender approaches competitive situations from vastly different contexts. Girls come to the gym seeking to bond as a means to success; boys battle to achieve the same thing. Women enter a workplace predisposed to connect to achieve goals; men compete to achieve goals. Both want to win and both want results, but they hold markedly different ideas on how to access their aspirations (p. 17).

Additionally, men attempt to create a social order in a hierarchy to understand their world and their role in it, while women attempt to create relationships to understand their role in a particular group or society."

In a similar vein, Pat Heim (1992) writes about gender differences and their response to authority in her book, *Hardball for Women: Winning at the Game of Business*. She writes,

Men and women have learned different guidelines about authority. From childhood on, most men become accustomed to living their lives in hierarchical organizations... The leader expects that when he gives an order, it will be followed. Without this chain of command he believes all will be chaos... Women perceive organizations as a flat playing field where everyone is equal, and when it comes to solving problems and mapping out the next play, flatness implies fairness and equality (Heim, p. 85).

In terms of learning styles, one way to view how people learn is to understand how each gender becomes confident in a concept. In *Women's Ways of Knowing*, the authors theorize there are two separate ways in which people believe something to be true – separate knowing and connected knowing (Belenky, Clinchy, Goldberger, & Tarule 1997). Separate learning is what occurs in the traditional classroom style setting. It follows the pattern of information dissemination and retention. Learners have the ability to test their knowledge against other information and to verify the "truth" of this knowledge. Connected knowing, on the other hand, refers to learning based on experience. If the learners, in this case, athletes, have experienced something, they see it as true because they have experienced it to be so or know someone who may have experienced it. While men and women can learn via both methods of "knowing," men are more apt to prefer separate

knowing, whereas women are more likely to prefer connected knowing. This information alone can greatly impact the success or failure of a coach. If coaches are aware of the learning preferences of their athletes, they are better prepared to be successful. Similar to the Multidimensional Model of Sport, this theory supports the concept that leaders who adapt to specific member characteristics will perform better.

Another important concept deals with women's preference to conform (DeBoer, 2004). Women tend to be driven to conform and to feel accepted. Often coaches view women as uncompetitive, but what is likely the case is they do not yet feel compelled to "struggle" to succeed. Men feel this sense to enter into a struggle to succeed, whereas women need a reason to enter the struggle because their worldview of interrelatedness with others does not advocate struggle for position. Women usually prefer to be competitive within a group, not against the group. When women feel most competitive is typically when they feel their efforts or struggle will better the group. This may provide evidence into which coaching leadership behaviors are preferable to women in collegiate rowing.

These differences, while not absolute, do demonstrate a need for a different approach when coaching each gender. Literature summarizing coaching behaviors related to successful women's collegiate teams in sports other than rowing may also prove valuable to this discussion.

Coaching Behaviors in Association With Successful Women's Collegiate Athletics

While there is a lack of rowing-specific literature in leadership research, there is a small body of research among leadership traits of successful intercollegiate coaches of other women's sports. Evaluating female gymnasts between the ages of 14 and 17 years, it was determined that while leadership style may influence team climate and achievement motivation, leadership style did not influence performance between groups of varied preferred leadership behaviors (Rosenberg, 1987). This study used the Team Climate Questionnaire, the Berlin Sport Motivation Q Sort, and the Coaching Leadership Assessment Scale to arrive at these conclusions. It is necessary to further review successful women's assessments of their coach's behavior using a different instrument to support or negate these findings. The instruments used did not

sufficiently measure the leadership behaviors of these coaches.

One of the most decorated coaches in women's intercollegiate athletics is arguably Pat Summitt of the University of Tennessee's Lady Volunteers basketball program. She has been at the University of Tennessee's program for 34 years and has a winning percentage of over 80%. She is the winningest coach in basketball history with well over 900 wins. The team has earned eight national titles under her leadership. She was inducted into the Basketball Hall of Fame in 2000. More importantly, perhaps, is the fact that every woman who has completed her eligibility at the University of Tennessee under Pat Summitt has received her degree.

Interestingly, Pat Summitt is known to be a "tough" coach who is not easy on her players (Zauderer, 2004). This is in contrast to previously discussed theories about leadership preferences of female athletes. Of course, there has not been an academically designed case study of Pat Summitt's coaching leadership behaviors, but upon observation she does tend to be more authoritative and less

democratically inclined in her coaching style. Zauderer (2004) writes,

Coach Summitt is a George Patton "in your face" type of leader. She is a tough disciplinarian and players are challenged to endure her demanding training protocol. However, her players also understand at a deep level that she is devoted to helping them mature as individuals and as a team (p. 21).

Her outward actions may not be completely indicative, though, of her leadership behaviors as a package. For example, Zauderer (2004) also reports:

Pat Summitt makes a personal connection with players, but also ensures that players understand each other. She and her team members share scrapbooks of their lives prior to entering college. In addition, she has the players fill out a personality profile instrument and share the results in a group meeting. In these conversations, team members discuss their strengths and vulnerabilities and how best to communicate with each other. Coach Summitt also meets with players one-on-one. In her words, "I meet four times a year with each player on our team, individually. We look eyeball to eyeball and talk about everything from her fears to her ambitions. I spell out what her role is and what's expected of her, but more important, I ask what she wants. After those talks, I feel more in tune with her. I know what she needs to help her performance. And I have heard her." (p. 24)

This testimony offers greater insight into her ability to lead women to athletic success. She has concrete examples of she connects with her female athletes. These examples demonstrate her knowledge of the team members'

needs. Upon meeting these needs, the athletes are better prepared to be successful.

An additional way in which Pat Summitt feels she excels in the leadership of her team is through positive feedback. She pays special attention to how players react to her criticism. If she is especially rough or overly critical of a player during practice or a game, she will write a quick handwritten note to that player pushing them to keep going and not let the criticism affect them personally or affect their level of play. In this way she affirms her belief in them and re-emphasizes their role on the team. This type of leader behavior reflects the previously discussed theory of women's preference towards connected knowing. In this way, each of the women on the team learns that their coach in fact does care about them as individuals, which is immensely important to the female athlete.

Contemporary Theories of Leadership

The leader's role in the ultimate success of a group has been discussed frequently throughout history, especially in the context of sport. There are a number of important theories of leadership that lend valuable

information to the study of sport leadership. Among these theories are the widely referenced contemporary theories of leadership including the leader-member exchange theory, transactional leadership, transformational leadership, and charismatic leadership. These contemporary theories are different from the more traditional leadership theories because they take into account the interaction between the leader and the followers. Previously studied approaches such as the trait approach, the style approach, and the situational approach do not consider the importance of this interaction between the leader and the followers, which is key to this study. A review of these four common theories of leadership- leader-member exchange theory, transactional leadership, transformational leadership, and charismatic leadership, and the relevant research will provide a framework for analyzing the common behaviors among the coaches in this study.

Leader-Member Exchange Theory

The Leader-Member Exchange Theory demonstrates how leaders of groups facilitate their working relationships through the concept of "in-groups" and "out-groups." Followers fall into the leader's in-group circle or outside

of this circle. The theory suggests followers have a period of time in the beginning of their relationship with the leader in which they become acquainted with the leader and the leader is able to informally take an inventory of the followers' skills, education, experience, abilities, talents, and their potential value to the leader and the organization or group's objectives. Northouse (2007) describes the process of this theory in three stages: (1) the stranger phase, (2) the acquaintance phase, and (3) the mature partnership phase. The stranger phase is a process of transactional exchanges where the followers and leader work within an accepted group of rules determined by the organization or group's design. These exchanges and interactions are of a low quality and are not particularly helpful to the organizational goals or the mission of the group. They simply help to initiate the leadership process. Once this stage is established, the acquaintance phase can begin. In this phase, also often referred to as role-making, there are a series of informal, give and take negotiations whereby the group member and the leader come to an unspoken agreement as to what their role will be and what they will receive in terms of power, position, or

influence in return for their efforts toward organizational goals. In the final stage, a mature partnership can be created between the follower(s) and the leader. In this stage, followers are aware of their importance or proximity to the leader in terms of value and expectations. The leader and the group member/follower become fully familiar with each other and their roles through high quality interactions with one another and other group members.

The Leader-Member Exchange Theory has been criticized because it runs counterintuitive to commonly accepted beliefs that people should be treated fairly and equally (Northouse, 2007). However, one could look at this theory and see that there is usefulness in having an out-group of followers. Not all people want extra closeness to a leader and the additional responsibilities and trust associated with being in the in-group.

On an athletic team, as in business, some members appreciate closeness to the leader and want to excel and have increased responsibilities whereas others want to simply complete the requirements of their position without any added pressure or additional requirements. The out-group, in the case of an athletic team, simply wants to

participate. They may also want to do well competitively, but they do not want additional responsibilities to go above and beyond those deemed acceptable. Coaches who realize this and understand the concepts of the Leader-Member Exchange Theory can use this to their advantage. Athletes can be treated fairly in this model as long as the boundaries for entry into the in-group are kept open to everyone on the team. A coach who allows athletes to move between the in-group and out-group as deemed necessary by the athletes' desires, current life stage, personal characteristics and abilities, etc., may increase the team's effectiveness.

In addition, the leader-member exchange theory provides a framework for understanding how different athletes on the same team may view their coach or leader in a contrasting way. Case (1998) found in a study of 178 female basketball players at an instructional summer camp that athletes considered to be "starters" were more likely than those considered to be "non-starters" to score their coach higher on the Leader-Member Exchange Scale. A higher score gathered from this instrument indicates the follower, or player in this instance, feels their coach

provides adequate information about their role on the team, provides ways for improvement and development as an athlete, and generally goes beyond what would be considered normal for a coach to provide an athlete in terms of guidance and instruction (Graen & Cashman, 1975; Linden & Graen, 1980).

In contrast, the "non-starters" scored their coach lower on this scale. This would indicate the coach may not have been as supportive of their development as he or she was in regards to the "starters." Therefore, it can be concluded the athletes all viewed their coaches differently based on their team position. Athletes who feel their coach cares about their development would be more inclined to commit to the team and participate more fully. This is of particular interest to the purpose of this study. In particular the first stated purpose - to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, and the final stated purpose - to determine if there is a general consensus among the athletes concerning their coach's leader behaviors,

regardless of position on the team. It is necessary to see where, if at all, this line of differentiation exists in athlete reported measures of their coach's leadership behaviors. In the previously mentioned research (Case, 1998) using leader-member exchange theory, the data demonstrated significant differences among starters and non-starters. In this situation, starters include only five girls per team. No research has been done to see if this theory is applicable when the in-group needs to be much larger.

In women's rowing, the teams garnering NCAA Championship Regatta team bids must have qualified with at least 23 women - 9 women in the 1st eight, 9 women in the 2nd eight each comprised of 8 rowers and a coxswain, and 5 women in the 1st four comprised of 4 rowers and a coxswain. In this scenario, those 23 women would all be considered part of the in-group. It can be hypothesized that the leadership behaviors of a coach requiring 23 starters may vary greatly from one requiring only 5 starters.

It is necessary to look at additional leadership theories and research to support this statement and the additional purposes of this study.

Transactional Leadership

Transactional leadership is a style of leadership whereby the leader is very clear with the followers concerning his or her expectations of them. A clear structure is created for the followers where they are aware of these expectations and the resulting outcomes of their actions and behaviors. However, the leader does not take situational or member characteristics into consideration. This process of leadership is rarely dynamic and is a "one size fits all" prescription for leading a group.

Burns (1978) defines leadership by categorizing leader behaviors into transactional or transformational. In transactional leadership, a leader and a follower simply engage in an exchange of services and/or goods. For example, a rowing coach might motivate his or her athletes to be faster on a 3 mile run test by offering a reward of value, such as attendance at the San Diego Crew Classic, a popular early season regatta, but typically cost prohibitive for many teams to attend. In doing so, the coach has offered a reward for a specific result the athletes can achieve. Upon achievement, they will realize the benefits of the reward.

Northouse (2007) further describes transactional leadership as comprised of three areas of behavior. He refers to these areas as (a) passive management by exception, (b) active management by exception, and (c) contingent reward. In passive and active management by exception, leaders watch their followers to verify they are following protocol and performing at an acceptable standard. Active management by exception implies the leader frequently corrects and informs the followers of their mistakes or ways in which they can improve. In this way, the followers receive active feedback about their performance prior to a formal review. In passive management by exception, followers receive very little feedback while they are engaged in activity or work for the organization, but receive this corrective feedback at a fixed point, such as an end of the year review. In both instances of management by exception, followers receive negative feedback more frequently than positive feedback.

Contingent reward is the third factor in transactional leadership. This commonly used management practice is an understanding between the leader and the follower that a reward will be given in exchange for work. For example, if

an athlete is willing to do two extra weightlifting sessions during the week, they can be rewarded by having Saturday morning off.

Rowold (2006) further investigated the impact of transactional and transformational leadership using martial arts coaches. The author concluded transactional leadership was effective in a recreational sport model, but transformational leadership lends itself to more effective coaching.

While this study's results are promising, it was limited to a recreational sport unlike rowing. In martial arts, athletes are able to progress without their teammates and do not need to rely on one another for success. If an athlete practicing martial arts applies herself to the sport and practices diligently with a high degree of competency and instruction, they can succeed regardless of how others in the setting are doing. In contrast, rowers on a collegiate team may not be successful given the same circumstances. For example, a rower achieving the fastest times on an ergometer (indoor rowing machine widely used by all teams to simulate rowing on the water) in the country may never be invited to the NCAA championships. A single

person or even a handful of people may not be successful without a solid group of women on their team.

Transactional leadership can be effective in a number of athletic situations, but leadership research has shown (Bycio, Hackett, & Allen, 1995; Hater & Bass, 1988; Rowold, 2006; Waldman, Bass, & Yammarino, 1990) by elevating one's leadership skills and practices to transformational leadership, groups can achieve more and become more successful.

Transformational Leadership

While transactional leaders can be perfectly capable, transformational leaders take their abilities to another level and have a visionary style of leading. Northouse (2007) writes the following with regard to transformational leadership:

In contrast to transactional leadership, transformational leadership is the process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower. This type of leader is attentive to the needs and motives of followers and tries to help followers reach their fullest potential (p. 176).

A transformational leader works within their established vision for the group. Once this vision has been established, this type of leader will work to

demonstrate the value of the vision and find ways for the group to achieve the vision. Bass (1985) argues that transformational leadership motivates followers to do more than is expected of them in three unique ways. First, transformational leaders raise followers' levels of consciousness about the importance and value of specialized and idealized goals. Additionally, these leaders are able to convince followers to transcend their own self-interest for the sake of the team. Finally, transformational leaders are able to move their followers to address higher level needs of the team.

Leaders with transformational qualities tend to have similar characterizations. The research (Bycio, Hackett, & Allen, 1995; Hater & Bass, 1988; Waldman, Bass, & Yammarino, 1990) collectively defines these in terms of four factors: (a) charisma or idealized influence, (b) inspiration or inspirational motivation, (c) intellectual stimulation, and (d) individualized consideration. With idealized influence, leaders are viewed as role models whom followers strive to emulate. The leader's behaviors and values are so strong and their importance to their followers are so deeply rooted that the followers are

encouraged to commit to their vision. An example of a leader with idealized influence is Kevin Saurer, head women's rowing coach at the University of Virginia. As a coach, Kevin has the ability to capitalize on his deeply rooted values toward hard work and success to garner commitment from his players to go beyond normally accepted standards for participation in college rowing.

A transformational leader utilizing the factor of inspirational motivation motivates team members through emotional appeals and convinces them to achieve beyond their preconceived ideas of what they will do. In this manner, the leader appeals to the team member's desire to help the group as opposed to simply fulfilling their own self-interests.

The third factor in transformational leadership is intellectual stimulation. Leaders encourage team members or followers to question current methods and seek new ways of performing their tasks. Followers are encouraged to be problem-solvers to assist the organization in reaching its goals.

The final factor is individualized consideration. In this way, the transformational leader treats followers with

special consideration for their personal needs. The leader takes these needs into account and carefully assists members to achieve their tasks.

Many studies have been done to analyze the difference between transactional and transformational leadership and to understand if transformational leadership is more effective than a transactional style. Lowe, Kroeck, and Sivasubramaniam (1996), in a meta-analysis of 39 studies looking at transformational leadership in literature, found that leaders in both private and public settings and in higher and lower level positions were considered to be more effective and had better work production/outcomes when exhibiting transformational leadership styles. More specifically, both organizational performance and satisfaction of organizational members/followers has been higher in sport management (Davis, 2002; Ristow, Amos, & Staude, 1999), profit - and nonprofit organizations (Fuller, Patterson, Hester, & Stringer, 1996; Lowe et al., 1996), educational contexts (Harvey, Royal, & Stout, 2003), religious organizations (Druskat, 1994), and the military (Bass, 1998).

This suggests transformational leadership styles may be of value to women's rowing coaches. In an effort to develop a strong group of collegiate rowers, coaches may use transformational behaviors or styles of leading to keep the group functioning smoothly. High performing teams and rowers with higher degrees of satisfaction may be due in part to transformative leadership styles. Rowold (2006) also suggests further research should be directed towards assessing coaching behaviors and their impact on success or performance measures. While athletes may report preferring transformational behaviors, these behaviors or styles may not be directly linked to increased performance or increased success in competition. Therefore, this confirms the purpose of this study as a necessary step in sport leadership research.

Charismatic Leadership

The final key area of contemporary leadership theory is charismatic leadership. Charismatic leadership is often considered to be a type of transformational leadership or considered to be a style within transformational leadership. What characterizes the difference between the charismatic leader and the transformational leader is the

transformational leader specifically has a vision or goal in mind to achieve whereas the charismatic leader does not necessarily desire to reach a goal. While the charismatic leader may indeed wish for the followers to reach a goal, it is not integral to their leadership success.

Charismatic leaders are strong role models, show high degrees of competency, articulate their own goals, communicate high expectations, express confidence in others, and arouse motives (Northouse, 2007).

Barbuto (2006) argues a very clear distinction, often undefined, between transformational and charismatic leadership. His argument clarifies the differences between these two styles of leadership. In essence, followers of charismatic leaders are not given skills to achieve a set of goals. Followers of charismatic leaders are instead motivated by the leader and willing to do what it takes to accomplish the leader's vision. They may or may not be given the tools or resources to do so. In transformational leadership, followers are given these tools to achieve goals. Charismatic leadership is more dependent on the leader, a trait the leader possesses, while

transformational leadership is more dependent on the follower.

His argument, therefore, is of interest when analyzing coaching behaviors. Many would believe charisma is necessary to coaching a highly competitive sport team. While charisma may be beneficial to a coach, it may not suggest a relationship between this trait or style and increased performance or success. A qualitative inquiry into coaches' self-assessments of their leadership behaviors would be a valid indicator of their value placed on charisma as a component within their own leadership behaviors.

These contemporary models of leadership build a basis for the research in sport leadership behavior. They provide a historical rendering of leadership research and the development of lines of research within leadership. While each impacts this study's purposes-- 1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their

actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team, they are not sufficient to look at exclusively. It is the intent of the researcher to assess a collection of behaviors or similar practices in leadership to provide a framework for understanding successful teams. None of the aforementioned theories can be exclusively related to success. They are not meant to sufficiently describe coaching behaviors. They are, however, important and critical to understanding the development of both the Multidimensional Model of Leadership and the Leadership for Sport Scale used in this study. Each of these theories can be seen within the Multidimensional Model of Leadership.

Multidimensional Model of Leadership

The Multidimensional Model of Leadership (MML), developed by Packianathan Chelladurai (Chelladurai, 1978, 1990, 1993a; Chelladurai & Carron, 1978), was designed to be used specifically in sport situations. This was the first such model to assist those involved in sport in their assessment of leader behaviors within the context of both the environment within which the leader is working and the

members of the group with whom the leader is working. A number of existing leadership models (Evan & House, 1971; Fiedler, 1967; Osborne & Hunt, 1975; Yukl, 1971) such as the contingency model of leadership, the path-goal theory of leadership, the adaptive-reactive theory of leadership, and the discrepancy model of leadership focused on a specific area or aspect of leadership (Chelladurai & Reimer, 1998), but do not express leadership as a relationship among a number of contributing variables. The MML provides an association among three different types of leader behavior including required behavior, preferred leader behavior, and actual leader behavior. The uniqueness of this model is its ability to assess the leader, the group members, and the situation as they relate to one another within the sport context (Sherman et al., 2000).

This particular view of leadership as an interactional process between the coach and the athlete(s) is the first model created specific to research in sport leadership. This study attempts to understand the relationships between the leaders' behaviors or actions and the ultimate success of the team. The uniqueness of this model's integration of

these two variables is key and makes it most applicable to our understanding of this phenomenon—success in coaching women's collegiate rowing.

When looking at the three antecedents in the Multidimensional Model of Leadership including situational characteristics, leader characteristics, and member characteristics, it is critical to then see how these relate to the required, actual, and preferred behaviors, and how those relationships will affect performance and satisfaction—this is the essence of the model (Chelladurai & Saleh, 1980). For example, if the leader's characteristics and actual behavior match with those of the situation and the characteristics of the member and, additionally, these characteristics are in congruence with the required and preferred behaviors of the situation and members of the group/team, then there will likely be a high level of performance and satisfaction. There is also a feedback component to this model, which creates a loop whereby the performance and/or satisfaction relates back to the actual behavior of the coach. The model thus demonstrates that a team and its coach are organic in nature, rather than static and unchanging, and are

constantly evolving. A coach's actual leadership behavior may change based on team satisfaction or performance.

This model most closely relates to the purpose of this research and will therefore serve as a guide to understanding the behaviors of the coaches in this study. Chelladurai & Saleh (1980) developed a survey instrument to quantify the components of the MML. This survey is the Leadership Scale for Sport.

Leadership Scale for Sport

The Leadership Scale for Sport (LSS), developed by Packianathan Chelladurai (Chelladurai & Saleh, 1980) was created with the Multidimensional Model of Leadership both for informative purposes and also to test this model of leadership. While many leadership assessments have been previously created to assess leader behaviors, this scale was created to be used specifically in the sport context. Previous scales were created based on business and military models. While these models may be appropriate in those contexts, they may not get at the essence and uniqueness of sport situations. For example, in sport, athletes spend a great deal of time and energy in practice for a relatively short competition. In business, on the other hand,

associates spend a much shorter period of time training and do not typically have a "competition" period (Chelladurai & Saleh, 1980). The second characteristic unique to sport is the idea of being rewarded for performance in the sense that competition allows for a "winner" and a "loser" in most sport contexts, which is again very different than most business situations. Athletes know they may not succeed for a number of reasons but continue to practice and compete (Chelladurai & Saleh, 1980).

Finally, a third differentiating characteristic is the length of time an athlete participates on a team. In most sport situations, athletes participate for a relatively short time frame and move on to another sport or team, typically 3 to 6 months in a school or club sport season (Chelladurai & Saleh, 1980).

The first developmental stage of this scale by Chelladurai and Saleh (1978) had 99 items drawn and were modified from existing scales. These items were analytically reduced through the responses of physical education students to 50 items (Salminen & Liukkonen, 1994).

The following five dimensions of coach leader behavior were measured by the Leadership Scale for Sports: training and instruction, democratic behavior, autocratic behavior, social support, and positive feedback. Complete definitions of these five dimensions (Reimer & Chelladurai, 1995) measured by the LSS are as follows:

- 1) Training and Instruction: Coaching behavior aimed at improving the athletes' performance by emphasizing and facilitating hard and strenuous training; instructing them in skills, techniques and tactics of the sport; clarifying the relationship among the members; and structuring and coordinating the members' activities.
- 2) Democratic Behavior: Coaching behavior that allows greater athlete participation in decisions pertaining to group goals, practice methods, and game tactics and strategies.
- 3) Autocratic Behavior: Coaching behavior that involves independence in decision-making and stresses personal authority.
- 4) Social Support: Coaching behavior characterized by a concern for the welfare of individual athletes, positive group atmosphere, and warm interpersonal relations with members.
- 5) Positive Feedback: Coaching behavior that reinforces an athlete by recognizing and rewarding good performance (p. 279).

These five dimensions were supported in subsequent stages of test development. The 50-item questionnaire was administered to both physical education students and athletes in various sports at the intercollegiate level and

the results of this supported the LSS's five dimensions (Salminen & Liukkonen, 1994).

The final version of the LSS was created in 1990 and consists of three versions with 40 items in each version (Chelladurai, 1990). The three versions of the LSS include the preference version, the coach's perception of own behavior, and the athlete's perception of coach's behavior (Chelladurai, 1990). Each of these versions measures leader behavior based on the five dimensions. The preference version measures the type of leader behavior the athlete prefers, the coach's perception of own behavior measures how the coach perceives his/her current leader behavior, and the athlete's perception of coach's behavior measures the athlete's perception of his/her current coach's leader behaviors.

Each of these versions uses a five point Likert scale. The five points are as follows: always, often (about 75% of the time), occasionally (50% of the time), seldom (about 25% of the time), and never. Athletes and coaches are requested to respond to each of the 40 items using these options.

The LSS has been deemed reliable based on a study using responses from 53 physical education students. The students were given the survey and then given the survey again after a period of four weeks. The reliability scores for each variable in the survey are as follows: .72 for Training and Instruction, .82 for Democratic Behavior, .76 for Autocratic Behavior, .71 for Social Support, and .79 for Positive Feedback (Chelladurai, 1993a).

In terms of validity, the LSS has also demonstrated content validity, criterion-related validity, and construct validity. In *Advances in Sport and Exercise Psychology Measurement*, Chelladurai and Reimer state the following in terms of the content validity of the Leadership Scale for Sports:

Chelladurai (1981) explained that the LSS dimensions of training and instruction, positive feedback, and social support could be placed in juxtaposition with Porter and Lawler's (1968) model of individual motivation. This model of motivation envisages that an individual's expenditure of effort in an activity results in a certain level of performance. This level of performance in turn leads to certain rewards with which the individual would be differentially satisfied. According to Chelladurai (1981), training and instruction contributes to enhancement of ability and clearer role perceptions, which are instrumental to improved performance. Positive feedback ensures the equitable distribution of rewards based on performance, which is fundamental to feelings of equity and satisfaction. Social support becomes

critical to the effort phase, which is much more prolonged and agonistic in athletics than in other spheres (Chelladurai & Reimer, 1998, p. 248).

Criterion-related validity, substantiated through the relationships of the scales' variables has been demonstrated in previously published research. The observed outcomes and data from these studies support the theoretical relationships between both the selected criterion variables and the dimensions of leader behavior (Chelladurai, 1993a). The specific criterion variables include (a) athletes' satisfaction, (b) the performance level of athletes, (c) performance, (d) turnover in athletics, and (5) coach-athlete compatibility (Chelladurai & Reimer, 1998).

Factorial validity can also be claimed because "(a) a similar five-factor principal component solution was extracted in three different samples and was similar to those extracted in a previous study and (b) the scree plots were essentially the same for each of the three solutions." (Chelladurai & Reimer, 1998, p. 250)

Summary

In summary, this review of relevant literature included an in-depth review of the critical areas impacting this study. Included was a review of (1) coaching in the sport of rowing, (2) collegiate women's rowing, (3) gender differences in preferences for coaching leadership

behaviors, (4) coaching behaviors in association with successful women's collegiate athletics, (5) contemporary theories of leadership, and (6) the Multidimensional Model of Leadership and the Leadership Scale for Sports.

It is evident from this review that there is a large gap in the research concerning the sport of rowing and research relevant to coaching rowers, specifically female rowers. It is also clearly presented there are a number of ways in which women prefer to be coached and it is theorized women may perform better athletically when their coaches are aware of these preferred leadership behaviors. A review of the contemporary leadership theories provides a framework for the development of both the Multidimensional Model of Leadership and the resulting Leadership Scale for Sport. The research demonstrates a need for this study's purpose through the lack of relevant research in these areas.

CHAPTER 3

METHODOLOGY

The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

The research methodology presented in this chapter includes the research design, pilot study, the participants involved in the study, the questionnaires and interview procedures used, and the data analyses following the compilation of both the quantitative and the qualitative data.

Research Design

The research design for this study was a mixed method design including both survey research and phenomenological qualitative inquiry to compile data from athletes and their respective head coaches. The information necessary for this study was best gathered through this type of research design. For the survey portion of the data collection, an online survey was determined most appropriate for this population. For the qualitative inquiry portion of the data collection, telephone interviews were deemed best. The other options considered were in-person interviews, which were not plausible considering the locations of each school, or through email, which was seen as impersonal and would not have allowed the researcher to prompt development of responses from the coaches.

Pilot Study

A pilot study was conducted with NCAA Division III women's rowing programs fitting similar criteria to those established for this study. Each of the teams had received multiple NCAA Championship invitations since the inception of the regatta. Of the seven teams invited to participate, four of those teams elected to participate. A total of 50

athlete surveys were received with 41 determined to be usable.

The pilot study demonstrated rowers on successful Division III women's teams have a preference for training/instruction leader behaviors with the behavior of positive feedback as an additional behavior seen as highly desirable among the athletes. The least preferable behavior as indicated on the LSS preference version was autocratic behavior. In all cases, these coaches' behaviors were closely matched with their athletes' preferences, indicating a relationship between the success of a team and prescribed and preferred behaviors aligning with their coach's actual behaviors.

This study demonstrated the need for further research using a larger sample. The pilot study data were presented at the USRowing Annual Conference. In attendance were many of the coaches within the population. It was determined through discussion with these coaches that an interview component would be of particular interest as there may be other behaviors or common themes associated with successful women's rowing coaches that would not be evident or would be difficult to analyze using a survey research design.

Current Research

Coaches' emails were found through their respective schools' websites. Coaches from all NCAA Division I women's rowing programs were notified of the research study via a letter sent in an email. They were then asked to forward a second email containing survey instructions for their athletes if they wished to participate in the study. Athletes and coaches choosing to participate did so by following an email link. In this manner, coaches and athletes could easily access the survey and complete it at a time convenient for them. This convenience was thought to increase the participation rate.

Research on surveys conducted online show they are less expensive to administer, are easier to edit and make visually appealing to participants, and also allow for a faster turnaround time for the researcher to access the data. Convenience is another issue with online or website survey design. As long as participants have access to the necessary technology, they are able to complete the survey in a location of their choice, which may be more comfortable to them, and at a time most convenient in their schedules. While these findings are positive, it is not

yet clear the effect surveying online has on overall response rates. Research is inconclusive on this subject, as some research points to higher rates of return, others show lower rates of return, and some show the same participation rates whether given online or in person (Daley, McDermott, McCormack Brown, & Kittleson, 2003; Haag Granello & Wheaton, 2004; Sax, Gilmartin, & Bryant, 2003). The varying rate of returns for studies utilizing online surveys was largely attributed to the type of participants, their ability to access the technology, their comfort levels with the technology, and their familiarity with computers.

Researchers have stressed that future research using the internet for survey collection should verify their target audience has access to the proper technology needed to complete the survey (Daley et al., 2003; Haag Granello et al., 2004; Sax et al., 2003). For the purposes of this study, the participants are college students and their coaches, each group having full access to the technology needed to complete the survey. Additionally, they are of a generation very comfortable with technology and expect technology to be used in their daily lives. Their coaches

regularly email them, they have team websites via their universities, many have their own websites, and are regularly expected to use the internet and computers in their college or university courses.

In this study, the researcher elected to use pre-developed survey software called Survey Monkey. Survey Monkey allows researchers to pay a fee to create surveys and to collect and organize the resulting data. In this way, the surveys can be created to accommodate any study and can include only the elements the researcher deems necessary. Survey Monkey was selected based on recommendations of other researchers and ease of use. Additionally, Survey Monkey was used in the pilot study and proved very effective.

Athletes were asked to complete two versions of the Leadership Scale for Sport (LSS). In the first version, referred to as the preference version, athletes responded to questions based on their preferences for leadership behaviors of their current coach. The second version, referred to as the actual version, assessed how athletes see their current coach's leadership behaviors. Coaches responded to their own version, referred to as the coach's

version, where coaches reported their perception of their own leadership behaviors.

Subsequent interviews with the coaches were conducted after each of the coaches completed the coach's version of the LSS to garner supplemental qualitative data with respect to coaching leadership behaviors. The interviews provided a more personal, in-depth analysis of the leadership behaviors that play a role in the success of these coaches' teams.

Participants

The participants for this study included head coaches, rowers, and coxswains currently on NCAA Division I women's rowing teams. Assistant coaches were excluded from this study as the primary purpose was to review the leader behaviors of the head coaches.

If a school had received an invitation to participate in the NCAA championship for women's rowing held annually (since the inception of the event in 1996), they were considered to be a successful program for the purposes of classification. See Table 3.1 for detailed information regarding which schools have received bids to the NCAA Championships since its inception in 1996.

The researcher contacted the individual head coaches of every NCAA Division I school with a women's rowing program through an initial introductory email (Appendix A).

Table 3.1 NCAA Championship Regatta Division I Invitational Team and At-Large Bids

Region	University / School Receiving Bids	# of Bids
Central Region	University of Iowa	2
	University of Michigan	8
	Michigan State University	7
	University of Minnesota, Twin Cities	1
	University of Notre Dame	3
	The Ohio State University	7
	University of Wisconsin	4
Mid-Atlantic Region	Cornell University	1
	George Washington University	1
	Georgetown University	1
	University of Massachusetts, Amherst	2
	University of Pennsylvania	1
	Princeton University	9
	Rutgers, State University of New Jersey	2
Syracuse University	4	
New England Region	Boston University	6
	Brown University	8
	Dartmouth College	2
	Harvard University	9
	Northeastern University	3
Yale University	7	
South Region	University of North Carolina, Chapel Hill	1
	University of Tennessee, Knoxville	4
	University of Texas, Austin	2
	University of Virginia	8
West Region	University of California, Berkeley	9
	University of California, Los Angeles	2
	Oregon State University	2
	University of Southern California	9
	Stanford University	4
	University of Washington	9
	Washington State University	4

Coaches not responding to the initial email were sent a subsequent follow-up email as a reminder of the research (Appendix B). A list of each NCAA Division I women's rowing program is included in Appendix C. While selecting schools with a certain number of bids was originally thought to be more appropriate, for the purpose of this study, it was critical to state a clear division from the more successful programs in order to accurately compare and contrast them to other programs. Therefore, it was concluded that all schools receiving bids to the NCAA Women's Rowing Championship would be classified as successful.

Questionnaires

The Leadership Scale for Sport (LSS) was utilized to measure coaching leadership behaviors. The scale includes a 40-item questionnaire for coaches reporting their own leadership behavioral traits, and (2) 40-item questionnaires for athletes, of which one questionnaire addresses the athlete's perception of their coach's leadership behavioral traits, and the other measures the athlete's preferred leadership behavioral traits. Each of these surveys utilizes a Likert scale for measurement. In

this case, the Likert scale was as follows: (1) Always, (2) Often (about 75% of the time), (3) Occasionally (50% of the time), (4) Seldom (about 25% of the time), and (5) Never.

Additionally, each athlete and coach completed a short demographic survey (Appendix F) just before completing the LSS. This demographic survey provided the researcher with key information relating to athlete position on the team and coaching variables such as years in coaching and years as the Head Coach at the current school.

The LSS has been deemed reliable based on a study using responses from 53 physical education students. The students were given the survey and then given the survey again after a period of four weeks. The reliability scores for each variable in the survey are as follows: .72 for Training and Instruction, .82 for Democratic Behavior, .76 for Autocratic Behavior, .71 for Social Support, and .79 for Positive Feedback (Chelladurai, 1993a).

In terms of validity, the LSS has also demonstrated content validity, criterion-related validity, and construct validity. In *Advances in Sport and Exercise Psychology Measurement*, Chelladurai and Reimer state the following in

terms of the content validity of the Leadership Scale for Sports:

Chelladurai (1981) explained that the LSS dimensions of training and instruction, positive feedback, and social support could be placed in juxtaposition with Porter and Lawler's (1968) model of individual motivation. This model of motivation envisages that an individual's expenditure of effort in an activity results in a certain level of performance. This level of performance in turn leads to certain rewards with which the individual would be differentially satisfied. According to Chelladurai (1981), training and instruction contributes to enhancement of ability and clearer role perceptions, which are instrumental to improved performance. Positive feedback ensures the equitable distribution of rewards based on performance, which is fundamental to feelings of equity and satisfaction. Social support becomes critical to the effort phase, which is much more prolonged and agonistic in athletics than in other spheres (Chelladurai & Reimer, 1998, p. 239).

Criterion-related validity, substantiated through the relationships of the scales' variables, has been demonstrated in previously published research. The observed outcomes and data from these studies support the theoretical relationships between both the selected criterion variables and the dimensions of leader behavior (Chelladurai, 1993a). The specific criterion variables are (1) athletes' satisfaction, (2) the performance level of athletes, (3) team performance, (4) turnover in athletics,

and (5) coach-athlete compatibility (Chelladurai & Reimer, 1998).

Factorial validity can also be claimed because "(a) a similar five-factor principal component solution was extracted in three different samples and was similar to those extracted in a previous study and (b) the scree plots were essentially the same for each of the three solutions" (Chelladurai & Reimer, 1998, p. 240).

Procedures

Coaches from all NCAA Division I rowing programs were notified of the research study via a letter (Appendix A) sent in an email. They were then asked to forward a subsequent email to their athletes if they wished to participate in the study. Athletes and coaches choosing to participate did so by following the email link guiding them to the survey located at www.surveymonkey.com. Coaches were linked to the LSS coaches' version and athletes were linked to the LSS preferred behavior and actual behavior version.

When a participant linked to the survey, he or she was immediately taken to the following welcome message: "Thank you for your interest in my research involving collegiate

women's rowing teams. I hope that you will take the time to agree to participate and to fully answer all the survey questions. You can be assured that your responses will be kept confidential. Your participation should take approximately 20 minutes maximum. It is my hope to get as many rowers and coaches from the selected schools to participate. Thank you for your assistance. It is greatly appreciated." Upon clicking the button to continue, the participants were taken to the consent form. Upon completion of the consent form by marking the "yes" box, the participants were taken to the survey. If participants clicked on the "no" box, they were directed towards a thank you page and removed from the survey.

To begin, each athlete and coach completed a short demographic survey (Appendix F) just before completing the LSS. This demographic survey provided the researcher with key information relating to school affiliation, athlete position on the team, number of years rowing, previous sports played, etc., and coaching variables such as school affiliation, years in coaching, and years as the Head Coach at the current school. Each of these questions directly related to the research questions.

Each athlete completed two instruments, the LSS Preferred Behavior version (Appendix H) measuring the athlete's perception of their coach's leadership behavioral traits and the LSS actual behavior version, measuring the athlete's assessment of their coach's actual leadership behavioral traits. Each version is a 40-item questionnaire. The coaches were directed to the LSS coach's version, which includes a 40-item questionnaire for coaches reporting their own leadership behavioral traits. Each of these surveys utilized the Likert scale for measurement. In this case, the Likert scale was as follows: (1) Always, (2) Often (about 75% of the time), (3) Occasionally (50% of the time), (4) Seldom (about 25% of the time), and (5) Never.

In addition to these quantitative data, it became apparent through the pilot study that a qualitative component was warranted as well. After review of the various approaches to qualitative inquiry and study design, the phenomenological approach to inquiry was deemed most appropriate for this research. The phenomenological research approach lends itself to the discovery of how the coaches view their own success and allows them to elaborate

on what they feel they do to create the successful environment within which their athletes thrive. Coaches from five of the participating teams were subsequently interviewed following their completion of the LSS. Coaches were asked if they would be willing to participate in a short phone interview to further discuss the topics of this research.

These questions were developed using the recommended guidelines for question development in phenomenological qualitative research by Moustakas (1994). Phenomenological research centers around two broad questions - "What have you experienced in terms of the phenomenon?" and "What contexts or situations have typically influenced or affected your experiences of the phenomenon?" (Moustakas, 1994). Both of these questions lend themselves to further understanding information related to the research questions of this study. However, to allow for greater specificity and relationship to this study's research questions, the following questions were developed using these two phenomenological questions as a guide for designing the interview.

Each coach who agreed to participate was asked the following guiding questions:

NARRATIVE Thank you for agreeing to do this! I am completing this interview as a part of my dissertation research. Before we begin, do I have your permission to record our conversation?

"I am going to read through a script of information so please let me know at any time if you need me to go back and repeat something, slow down, or clarify anything. This research is attempting to define common leader behaviors or styles among successful women's rowing coaches at the Division I level. In addition to the questionnaire you have completed or will soon complete, I have a few questions to ask you which may help to clarify your leadership style and behaviors."

1. If you had to name the most important leadership characteristics of a successful coach, what would these be? Why? (Ask for clarification as necessary.)
2. What type of leadership style or behaviors do you predominantly demonstrate in your role as a coach?
3. Which of these behaviors do you think are most related to the success of your team?

NARRATIVE "Here is a grouping of five commonly cited leader behaviors in sport research. (Hand them a prepared handout or read to them if interviewed over the phone.) As you (or "I" if on the phone) read through them you may see yourself exhibiting all of these behaviors to some extent, which is normal. However, most coaches tend to gravitate more towards one or two of these behaviors.

4. Of these behaviors, which do you feel you most often exhibit or tends to be a guiding leader behavior in your coaching role?

5. Which of these five behaviors do you see as paramount to coaching a successful women's collegiate rowing team? Any others not listed?

6. Do you see any of these leadership behaviors as limiting the competitive potential of women's collegiate rowing teams?

7. One of the reasons I initiated this research was my interest in how rowing coaches were able to keep substantial numbers of women on the team despite them being in perhaps the 3rd or 4th boat. How do you feel you are able to successfully do this?

Of the 86 teams in the population, 22 coaches agreed to participate by completing the surveys and five of those coaches also agreed to participate in the follow-up interviews. Phone interviews were conducted with each of these five coaches.

A team's data were included if at least two athletes and one coach from the respective team completed the survey. Participants were included if they voluntarily completed the study and were a part of the junior varsity or varsity rowing team at the selected schools. Completed surveys were excluded from data analysis if they were incomplete or if they did not meet any of the listed requirements.

Quantitative Data Analysis

Statistical significance was sought using the gathered data for each of the five leader behaviors provided by the Leadership Scale for Sport related to this study's research questions.

The following data were generated to aid in the demonstration of statistical significance or lack of statistical significance:

1. Means for the coaching preferences of athletes in each of the five leader behaviors.
2. Means for the coaching preferences of athletes sorted by team in each of the five leader behaviors.
3. Means for coaching preferences sorted by team position in each of the five leader behaviors.
4. Means for actual behavior as perceived by the athletes sorted by team in each of the five leader behaviors.
5. Side by side comparisons of all three scales arranged using the five leader behaviors (overall).
6. Side by side comparisons of all three scales arranged using the five leader behaviors (by team).

7. Descriptive statistics for the coaches' self-reported leadership behaviors (overall) in each of the five leader behaviors.

8. Descriptive statistics for the coaches' self-reported leadership behaviors (by team) in each of the five leader behaviors.

Qualitative Data Analysis

Each of the interviews lasted between 20 and 40 minutes in length. The same researcher conducted all interviews. The previously discussed questions were used in a guiding format and coaches were allowed to expand and discuss additional relevant topics as well. The researcher attempted to create an environment of openness to allow the coaches to develop their responses and to discuss certain topics more fully as a result of their specific interests. Qualitative data gathered from the interviews were first fully transcribed and then reviewed by the researcher.

Phenomenological data analysis includes horizontalization, developing clusters of meaning, writing a textual description, writing an imaginative variation or structural description, possibly writing about the researcher's own experiences of the context and situations

that have been of influence and, finally, composing a description that demonstrates the essence of the phenomenon – the essential, invariant structure (Creswell, 2007). In the first step, horizontalization, the researcher went through the interview transcripts and highlighted significant statements and quotes that provided an understanding of how the coaches experienced their leadership behaviors and the success of their teams. Then, clusters of meaning were organized from these statements into a group of themes. These themes were then used to create the textural description, which detailed what the participants experienced. In addition, these themes were used to write the imaginative variation or structural description. This allows the researcher to describe how the participants experienced the phenomenon within the context or setting of their team (Creswell, 2007).

The next step was not crucial to this type of research, but due to the researcher's background in the sport of rowing, it was completed. This step (Moustakas, 1994) included a written description of the researcher's own experience and the context and situations that have influenced one's experiences.

In conclusion of this process, the researcher wrote a final description presenting the essential, invariant structure of the phenomenon. This is also referred to as the "essence" (Creswell, 2007).

Of some concern was interviewer bias in the qualitative component of this data collection. The interviewer may have brought bias to the interviews due to personal involvement in the sport of rowing and past experiences with a number of these selected coaches. However, as previously described, in phenomenological research the interviewer is expected to bring personal experiences into the data analyses. Additionally, the researcher took these biases into consideration and after outside, expert review of the interview tapes and resulting data, it was determined that bias was very limited and the researcher's experience was of value in guiding the coaches through the interview. Coaches were allowed to impact the direction of the interview and the interviewer followed a loose guide of pre-determined questions. As recommended in phenomenological research, a formal description of the researcher's experience in the sport of rowing is included as a reference.

The researcher has extensive experience in the sport of rowing as an athlete, a coach, and an administrator. The researcher has rowed for 15 years, including 7 years as a collegiate athlete - 4 years as an undergraduate student on a club team and 3 years as a graduate student on a varsity team, capitalizing on the NCAA emerging sport rule. Post-graduate experience includes 5+ years as an elite athlete competing both locally, nationally, and internationally. In addition to the number of losses the researcher has experienced, are a number of national championships and a first place international finish.

Coaching experience includes 8 years of instructional coaching for those interested in rowing for recreational purposes and competitive scholastic rowers at the novice level. The researcher also founded and continues to operate a non-profit organization dedicated to promoting the sport of rowing at the community level and to increase minority participation in competitive rowing.

Summary

The data analysis of both the surveys and the interviews gave the researcher the necessary information to fulfill the purpose of this study: (1) to determine if any

relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

CHAPTER 4

RESULTS AND DISCUSSION

The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

Research Questions

The research questions for this study were the following:

1. What leadership behaviors do successful and other coaches exhibit from their perspectives?

2. From the perspective of the athletes of a successful and other coach, what type of leader behaviors do their coaches exhibit?

3. What type of leader behaviors do athletes on successful and other women's rowing teams prefer?

4. Does an athlete's team position, specifically her boat placement (1st boat, 2nd boat, 3rd boat, etc.), affect her assessment of the leader behaviors of her head coach?

Demographics

Of the 86 Division I teams eligible for participation, 22 coaches responded to the email requesting their participation. Of those coaches agreeing to participate, 20 coaches - 18 male and 2 female, completed the survey in its entirety and their corresponding data were deemed usable. Of the 20 coaches, 12 had athletes complete the LSS and 5 participated in the interview. See Table 4.1 for a summary of coach participation.

The coaches were responsible for sending an email to their athletes inviting them to participate. These email invitations from their coaches resulted in 168 athletes, all female, from 12 teams agreeing to participate. Of these participating athletes, 150 completed the surveys in

Table 4.1 Summary of Coach Participation

COACH	Agreed to Participate	Fully Completed LSS	Had Athletes Complete LSS	Participated in Interview
Coach #1	✘	✘	✘	✘
Coach #2	✘	✘	✘	✘
Coach #3	✘	✘	✘	✘
Coach #4	✘	✘	✘	✘
Coach #5	✘	✘	✘	
Coach #6	✘	✘	✘	
Coach #7	✘	✘	✘	
Coach #8	✘	✘	✘	
Coach #9	✘	✘	✘	
Coach #10	✘	✘	✘	
Coach #11	✘	✘	✘	
Coach #12	✘	✘	✘	
Coach #13	✘	✘		
Coach #14	✘	✘		
Coach #15	✘	✘		
Coach #16	✘	✘		

Table 4.1 (Continued)

COACH	Agreed to Participate	Fully Completed LSS	Had Athletes Complete LSS	Participated in Interview
Coach #17	✘	✘		
Coach #18	✘	✘		✘
Coach #19	✘	✘		
Coach #20	✘	✘		
Coach #21	✘			
Coach #22	✘			

their entirety and their data were deemed usable for the purposes of this research. The additional 18 respondents' data were used in the fourth research question only. In this question, the data represented athletes' assessments of their coaches' actual behaviors and these athletes did complete this section of the LSS. They did not complete the LSS - Preferred Version and, therefore, were not included in questions two and three because these data were used in comparisons among scales.

Athletes not completing both scales were ineligible to be used in these research questions due to the inconsistencies that may have arisen. See Table 4.2 for a summary of athlete participation.

Table 4.2 Summary of Athlete Participants

Team	Frequency	Percent
Team 5 (Successful)	8	5.3
Team 6 (Successful)	11	7.3
Team 7 (Successful)	7	4.7
Team 11 (Successful)	26	17.3
Team 12 (Successful)	25	16.7
Successful Subtotal	77	51.3
Team 1 (Other)	19	12.7
Team 2 (Other)	15	10.0
Team 3 (Other)	9	6.0
Team 4 (Other)	3	2.0
Team 8 (Other)	4	2.7
Team 9 (Other)	9	6.0
Team 10 (Other)	14	9.3
Other Subtotal	73	48.7
Total	150	100.0

*Successful Teams n = 5, Other Teams n = 7

Additional demographic data gathered from the research participants were compiled and are represented in Tables 4.3 through 4.6. These tables include information regarding the race demographics of the athletes and coaches, the athletes' current position on the team, and the athletes' years of rowing experience.

Table 4.3 Race Demographics of the Athletes

Athlete's Race	Frequency	Percent
Caucasian	136	90.7
African-American	3	2.0
Asian-American	3	2.0
Hispanic	3	2.0
Other	5	3.3
Total	150	100.0

Table 4.4 Race Demographics of the Coaches

Coach's Race	Frequency	Percent
Caucasian	20	100
African-American	0	0
Asian-American	0	0
Hispanic	0	0
Total	20	100.0

Table 4.5 Frequencies of Team Position

Position	Frequency	Percent
1 st Eight	11	7.3
2 nd Eight	47	31.3
3 rd Eight	51	34.0
Fours	18	12.0
Manager/Injured	7	4.7
Coxswain	16	10.7
Total	150	100.0

Table 4.6 Number of Years' Rowing Experience Athletes Possess

Years of Experience	Frequency	Percent
One	11	7.3
Two	24	16.0
Three	25	16.7
Four	31	20.7
Five	22	14.7
Six	15	10.0
Seven	10	6.7
Eight or more	12	8.0
Total	150	100.0

The first research question was what leadership behaviors do successful and other coaches exhibit from their perspectives? In order to answer this question, each coach completed the LSS - coaches' version. In this scale, coaches reported their own leadership behaviors. These self-reported measures were then compiled using the LSS scoring guide (Appendix K). Coaches' data were separated into two categories of "successful" and "other" using the following criteria. Any coach of a team with a team invitation or individual at-large boat invitation to the

NCAA Women's Rowing Championship in the time period reviewed (1996-2006) was categorized as "successful."

Twenty coaches completed the LSS. Of these 20 coaches, 12 had rowers complete the LSS scales. Therefore, all 20 of the coaches' data were used in the first research question, as it was not necessary to have corresponding athlete data for this question. For the remaining research questions, only the 12 coaches' data with athletes also completing the scales were used.

The mean of each coach's score in the five leadership behaviors in the successful category was generated and, secondly, the mean of each coach's score in the five leadership behaviors in the other category was generated. The resulting data are represented in Table 4.7.

Table 4.7 LSS-Coaches' Version Means by Success Level

Coach	Training & Instruction	Democratic	Autocratic	Social Support	Positive Feedback
Successful	3.96	2.96	3.00	2.70	3.68
Other	3.75	2.98	2.52	2.80	3.40

*Successful Coaches n = 13, Other Coaches n = 7

These data demonstrate a focus on training and instruction and positive feedback behaviors among

successful coaches. Additionally, coaches of other teams also demonstrated a tendency towards these two types of leader behaviors with the highest score (behavior most often exhibited) in training and instruction and the second highest score in positive feedback. However, the successful coaches do have higher scores than other coaches in each of these areas, although the results were not significantly different. Successful coaches averaged 3.96 in training and instruction as compared to 3.75 for other coaches. Successful coaches averaged 3.68 for positive feedback behaviors as compared to 3.40 for other coaches.

In a Spearman rank order correlation, a positive correlation was determined with a correlation of .700 and a significance of .188. While the successful coaches have higher scores, the scores are not significantly different.

The second research question was from the perspective of the athletes of successful and other coaches, what type of leader behaviors do the coaches exhibit? In order to answer this question, data from those athletes on the teams identified as successful and the data from those athletes on the other teams were included as separate components. Each athlete completed the LSS - actual version. In this

scale, athletes reported their perceptions of their respective coach's leadership behaviors. These athlete-reported measures were then compiled collectively using the LSS scoring guide (Appendix K). The resulting data from athletes on both successful and other teams are presented in Table 4.8.

These data demonstrate athletes evaluate their coaches' behaviors similarly to the self-reported measures

Table 4.8 LSS-Actual Version Means by Success Level

Coach	Training & Instruction	Democratic	Autocratic	Social Support	Positive Feedback
Successful	3.90	2.71	3.10	2.73	3.47
Other	3.56	2.67	2.87	2.61	3.23

*Successful Athletes n = 77, Other Athletes n = 73

of the coaches. Athletes on both the successful and the other teams report their coaches exhibit the leader behavior of training and instruction most frequently and positive feedback as the next most exhibited behavior.

In a Spearman rank order correlation, a positive correlation was determined with a correlation of .900 and a significance of .037. Therefore, this is statistically

significant. This demonstrates similarities among the coaches regardless of success level.

The third research question was what type of leader behaviors do athletes on successful and other women's rowing teams prefer? In order to answer this question, data from athletes on both successful and other teams were examined. Each athlete completed the LSS - preference version. In this scale, athletes reported their preferred leadership behaviors. These athlete-reported measures were then compiled collectively using the LSS scoring guide (Appendix K). The resulting data are represented in Table 4.9.

Table 4.9 LSS-Preference Version Means by Success Level

Coach	Training & Instruction	Democratic	Autocratic	Social Support	Positive Feedback
Successful	3.98	3.25	2.36	2.85	4.00
Other	4.13	3.17	2.40	2.70	3.84

*Successful Athletes n = 77, Other Athletes n = 73

These data demonstrate athletes of successful teams prefer positive feedback behaviors from their coaches, closely followed by training and instruction behaviors.

Athletes of other teams prefer training and instruction behaviors followed by positive feedback behaviors.

In a Spearman rank order correlation, a positive correlation was again determined with a correlation of .900 and a significance of .037. Therefore, this is also statistically significant. The difference here, as opposed to the previous research question, exists within the preferences of the athletes as opposed to their evaluation of the coach's actual behaviors.

To further develop this difference in preferences and actual behavior, the data from the LSS-Preference Version and the LSS-Actual Version were compared. The data are presented first in a group of successful teams and the other teams and then presented graphically by individual team for descriptive purposes. The resulting data are represented in Table 4.10 and Figures 4.1 through 4.10.

Table 4.10 demonstrates an overall picture of the data relevant to this research question, whereas the figures break down each leadership behavior by individual teams. The figures are presented as a collection of participating teams based on success level - in this case successful or other. These data in the figures most accurately depict

the congruency between each team's preferences for leadership and their coach's actual leadership behaviors.

Statistical significance cannot be determined for these data due to the nature of the data sets. There are two separate data sets for coaches and rowers making significance difficult to determine. However, congruency levels can be determined using a visual depiction as evidenced in Figures 4.1 through 4.10.

Table 4.10 LSS-Actual Version and LSS-Preference Version Comparisons

	Successful		Other	
	Athletes' Preference (LSS-Preference)	Coach's Behavior (LSS - Actual)	Athletes' Preference (LSS-Preference)	Coach's Behavior (LSS-Actual)
Training & Instruction	3.77	3.26	3.87	3.31
Democratic	3.17	2.47	3.19	2.83
Autocratic	2.40	3.00	2.44	2.73
Social Support	2.73	2.41	2.71	2.47
Positive Feedback	3.98	3.15	3.80	3.23

*Successful Athletes n = 77, Other Athletes n = 73

Figure 4.1 Successful Teams - LSS Results for Training and Instruction Behaviors

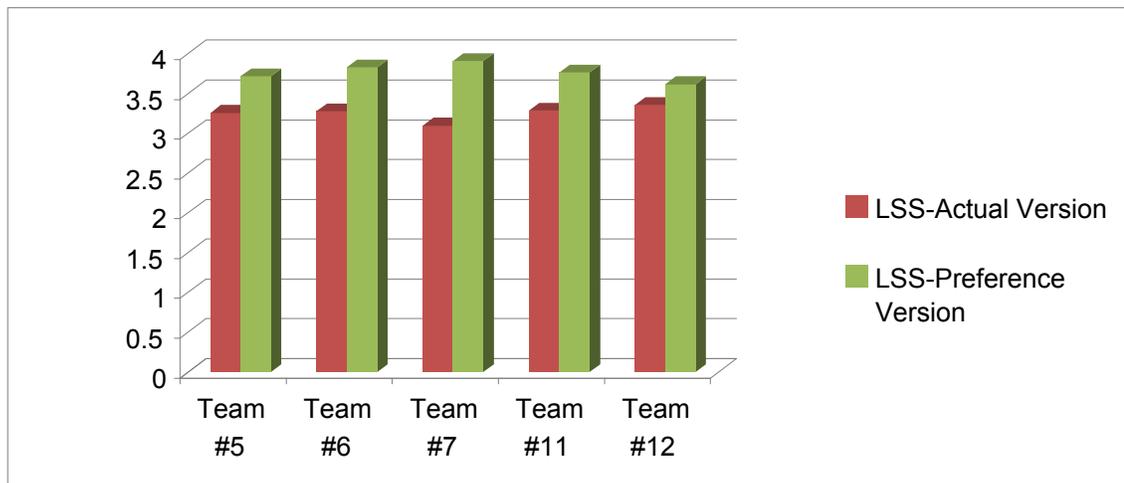


Figure 4.2 Other Teams - LSS Results for Training and Instruction Behaviors

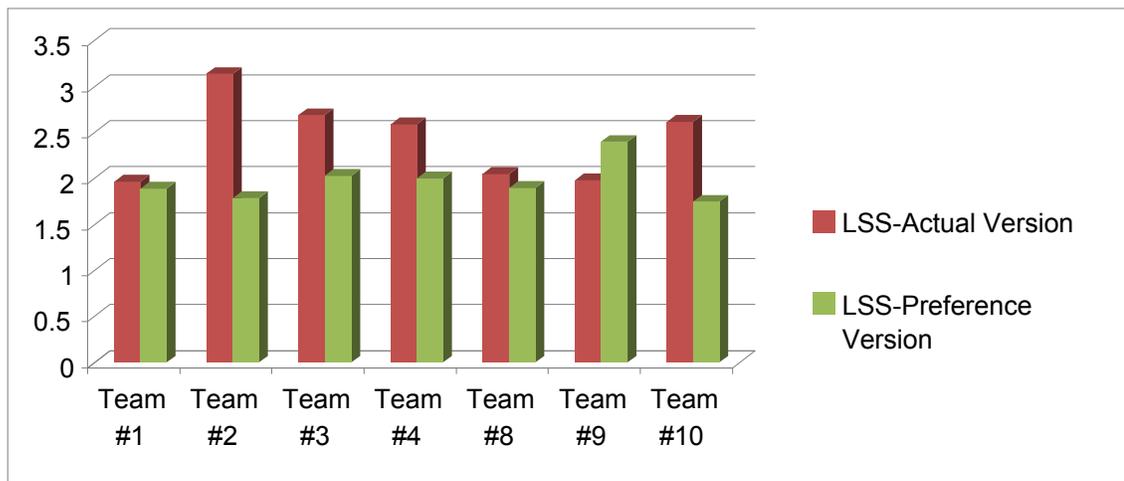


Figure 4.3 Successful Teams - LSS Results for Democratic Behaviors

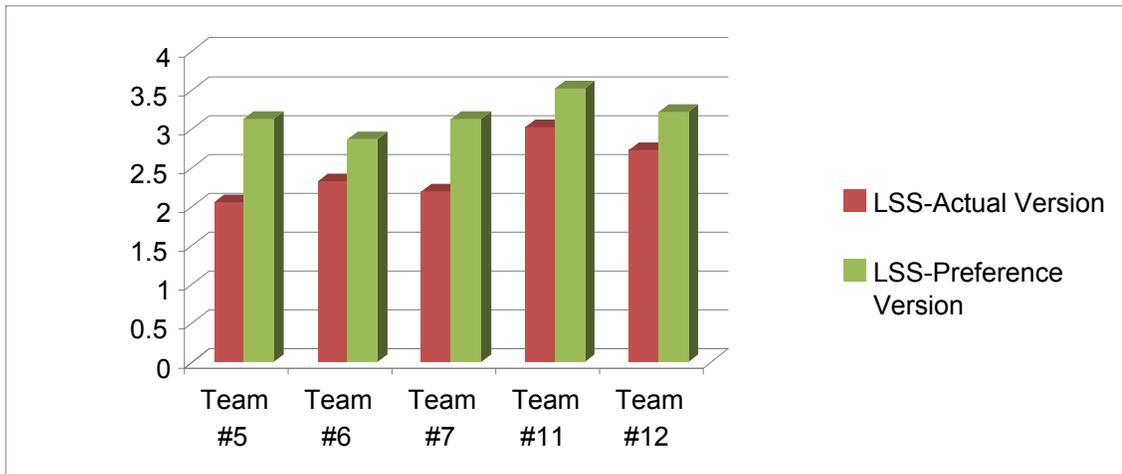


Figure 4.4 Other Teams - LSS Results for Democratic Behaviors

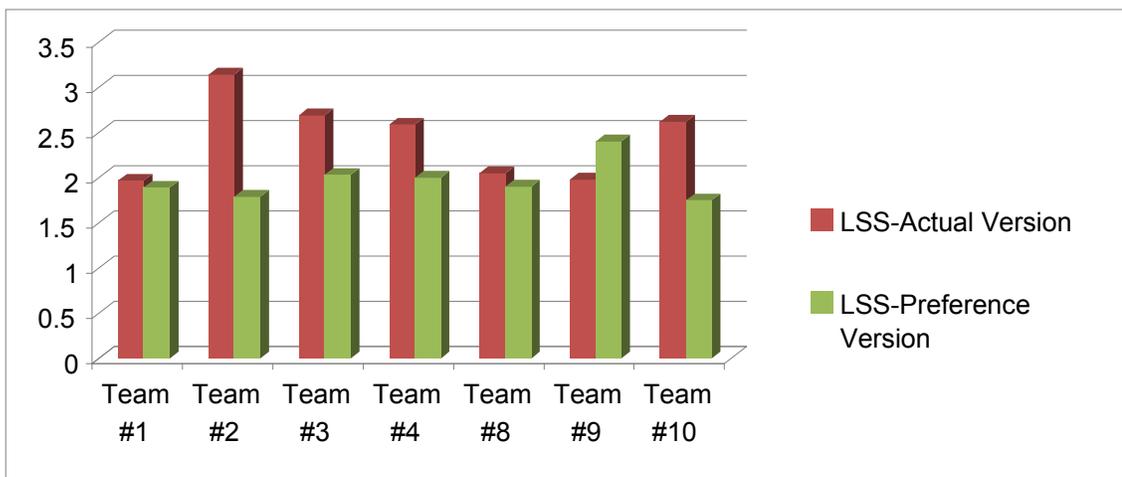


Figure 4.5 Successful Teams - LSS Results for Autocratic Behaviors

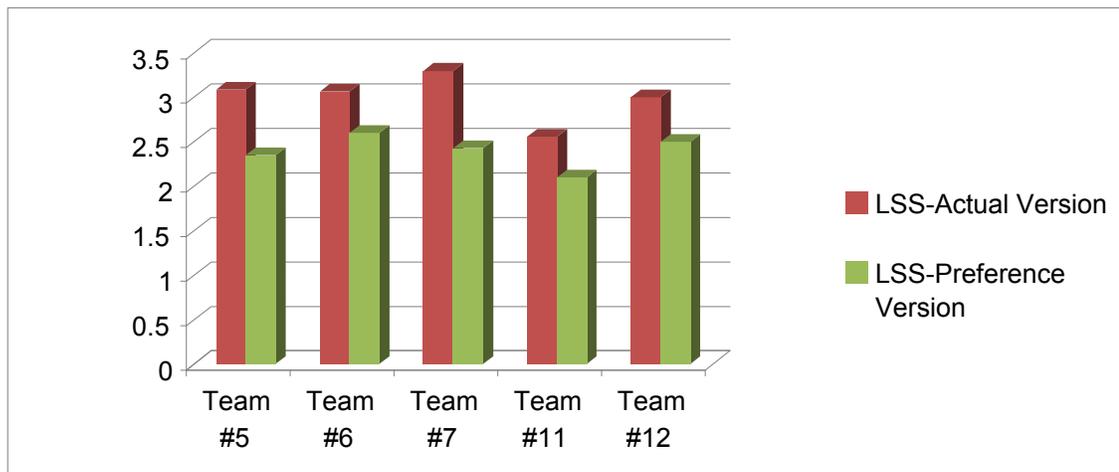


Figure 4.6 Other Teams - LSS Results for Autocratic Behaviors

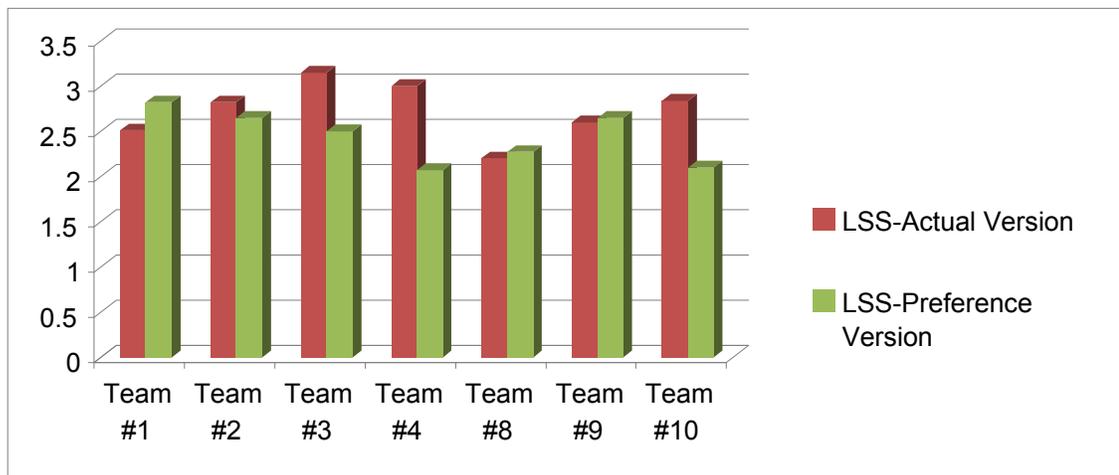


Figure 4.7 Successful Teams - LSS Results for Social Support Behaviors

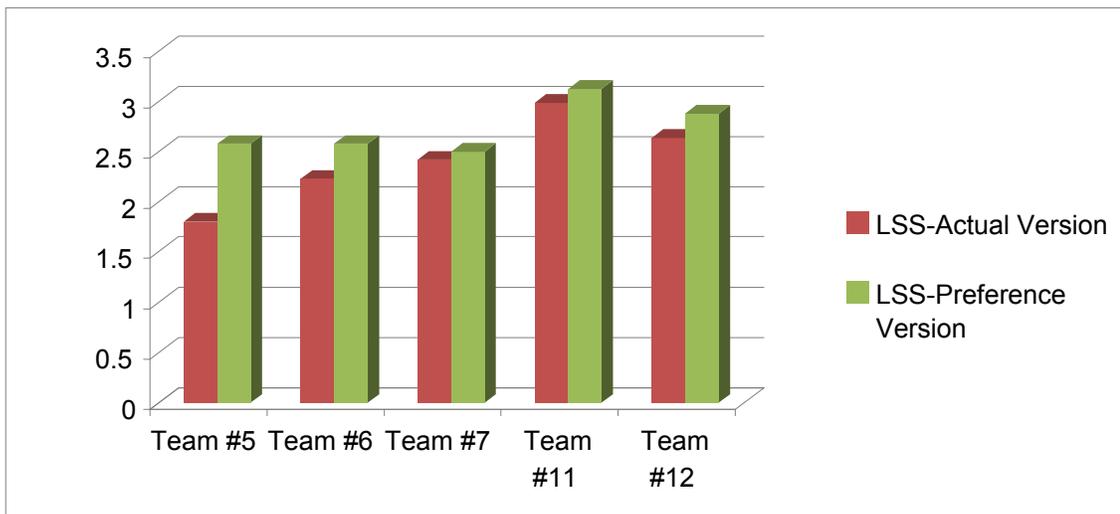


Figure 4.8 Other Teams - LSS Results for Social Support Behaviors

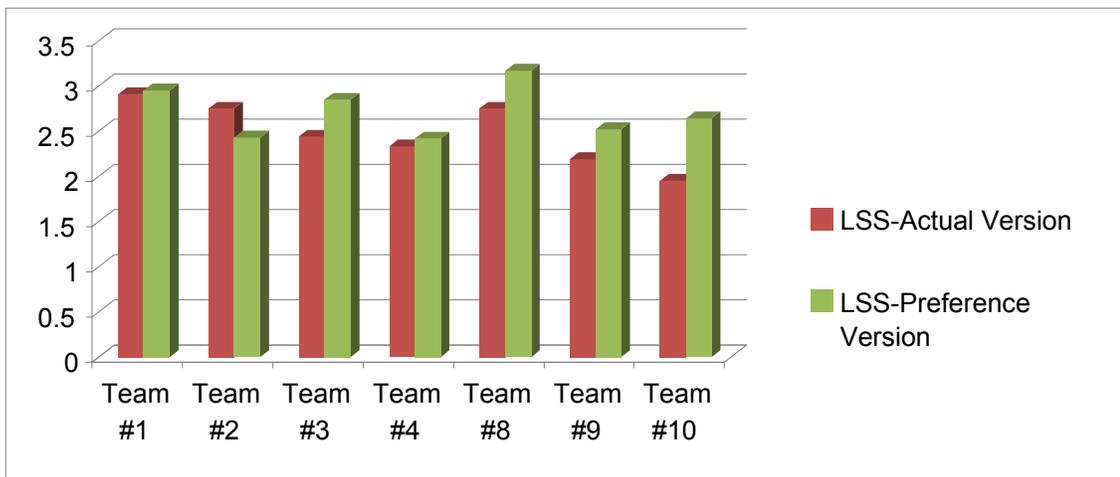


Figure 4.9 Successful Teams - LSS Results for Positive Feedback Behaviors

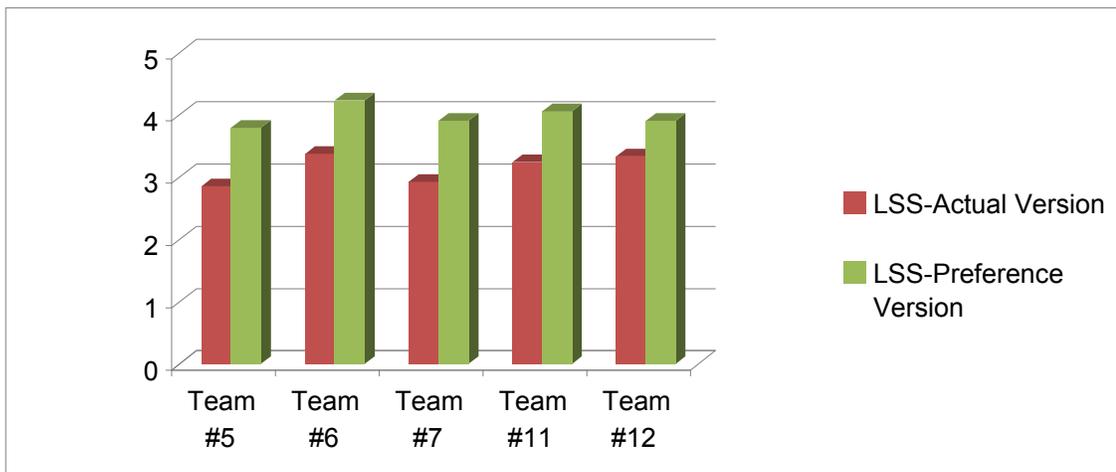
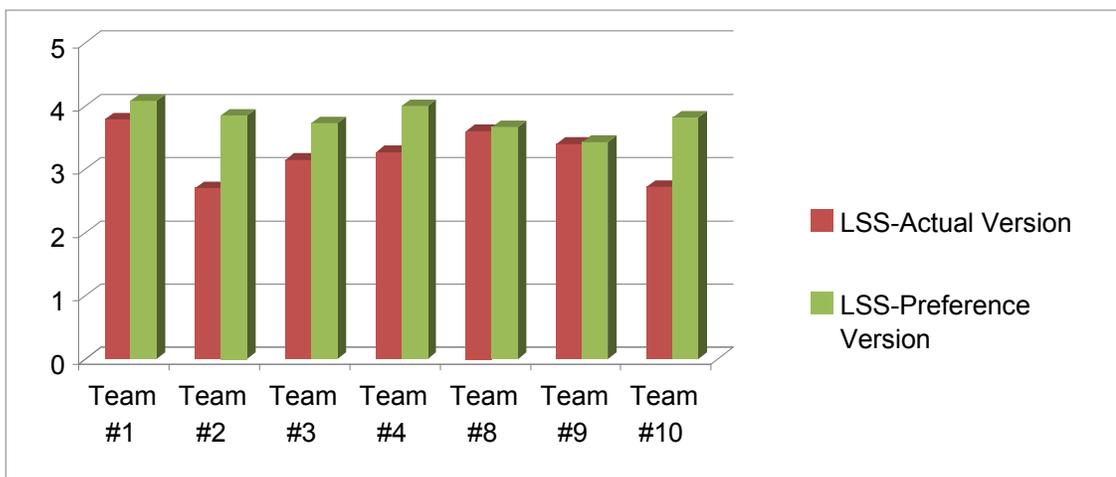


Figure 4.10 Other Teams - LSS Results for Positive Feedback Behaviors



Figures 4.1 and 4.2 depict successful athletes as preferring more training and instruction behaviors than they report experiencing with their coaches, while other teams do not have a consensus, but generally are opposite of the successful teams. These athletes report a high level of training and instruction behaviors are demonstrated by their coaches, while they would prefer less.

Figures 4.3 and 4.4 are similar in nature to Figures 4.1 and 4.2. Athletes on successful teams collectively report a preference for more democratic behaviors than they currently experience with their head coaches. In Figure 4.4, athletes on other teams generally report more democratic behaviors from their head coaches than they would prefer.

Figures 4.5 and 4.6 are not divided as evenly among the teams. While athletes on successful teams agree their head coaches utilize more autocratic behaviors than they would prefer, athletes on the other teams do not report collective agreement. Four of the teams have similar data in comparison to the successful programs and the remaining

three teams report less autocratic behaviors from their coaches than they would prefer.

Figures 4.7 and 4.8 show, with the exception of one team, all athletes reported a higher preference for social support behaviors than they were experiencing. One of the other teams reported experiencing more social supportive behaviors than they prefer.

Figures 4.9 and 4.10 provide the only unified response. All 12 participating teams reported experiencing less positive feedback than they would prefer.

The fourth and final research question asked whether athlete team position, specifically their boat placement (1st boat, 2nd boat, 3rd boat, etc.), affects their assessment of the leader behaviors of the head coach? In order to answer this question, means were generated for each of the five leader behaviors using the LSS - actual version. See Table 4.11.

Table 4.11 LSS-Actual Version Means by Team Position

Leader Behavior	Team/Boat Position	N	Mean	Std. Dev.
Training & Instruction	1 st Eight	8	3.7788	1.05427
	2 nd Eight	35	3.7077	.68366
	3 rd Eight/ 1 st Four	39	3.6864	.55789
	4 th or 5 th Boat	17	3.8914	.69287
	Injured/Manager/Other	12	3.9038	.75876
	TOTAL	111	3.7547	.67663
Democratic	1 st Eight	8	2.6944	.81812
	2 nd Eight	35	2.5746	.66420
	3 rd Eight/ 1 st Four	39	2.7521	.60454
	4 th or 5 th Boat	17	2.8627	.74797
	Injured/Manager/Other	12	2.7778	.78138
	TOTAL	111	2.7117	.67692
Autocratic	1 st Eight	8	2.8250	.77414
	2 nd Eight	35	3.0343	.68167
	3 rd Eight/ 1 st Four	39	3.0256	.64593
	4 th or 5 th Boat	17	2.6824	.68942
	Injured/Manager/Other	12	3.0833	.59365
	TOTAL	111	2.9676	.66962

Table 4.11 (Continued)

Leader Behavior	Team/Boat Position	N	Mean	Std. Dev.
Social Support	1 st Eight	8	3.1094	.51077
	2 nd Eight	35	2.4357	.63908
	3 rd Eight/ 1 st Four	39	2.7179	.66622
	4 th or 5 th Boat	17	2.7647	.68306
	Injured/Manager/Other	12	2.8646	.59462
	TOTAL	111	2.6802	.66116
Positive Feedback	1 st Eight	8	3.5500	.91183
	2 nd Eight	35	3.3657	.70375
	3 rd Eight/ 1 st Four	39	3.2359	.77578
	4 th or 5 th Boat	17	3.6706	.78721
	Injured/Manager/Other	12	3.3167	.73588
	TOTAL	111	3.3748	.76235

Subsequent ANOVAs using these means were then generated. See Table 4.12.

Table 4.12 ANOVAs for Athletes' Assessment of Their Coach's Leader Behavior by Team Position

		Sum of Squares	df	Mean Square	F	Sig.
Training & Instruction	Between Groups	.849	4	.212	.454	.759
	Within Groups	49.512	106	.467		
	Total	50.361	110			
Democratic	Between Groups	1.164	4	.291	.627	.645
	Within Groups	49.240	106	.465		
	Total	50.404	110			
Autocratic	Between Groups	1.994	4	.498	1.116	.353
	Within Groups	47.330	106	.447		
	Total	49.323	110			
Social Support	Between Groups	4.151	4	1.038	2.504	.047
	Within Groups					

Table 4.12 (Continued)

	Within Groups		106	.414		
	Total		110			
Positive Feedback	Between Groups		4	.632	1.091	.365
	Within Groups		106	.579		
	Total		110			

Based on the resulting ANOVAs, statistical significance was not found for the variables of training and instruction, democratic, autocratic, or positive feedback. Statistical significance was found for the social supportive leader behavior. Athletes in the 1st eight ranked their coach higher in this leader behavior than did athletes in other boats. Those rowers in the first eight reported a level of 3.1094 for social support behaviors, while athletes in the second eight reported a level of only 2.4357, athletes in the third eight or first four reported a level of 2.7179 for these same behaviors. Those in the fourth or fifth boats reported a level of 2.7647 for social support behaviors compared to a reported

level of 2.8646 from those listing themselves as a manager, injured athlete, or other position.

Qualitative Data

Of the 20 coaches participating in this study, 5 of the coaches identified as successful in comparison to their peers agreed to participate in a follow-up interview upon completion of the LSS - Coaches' Version. These were the first five coaches that responded to the initial email about the research. Four of the five coaches had athletes participate in this study and one coach did not have athletes participate. Saturation of data was seen after the fourth interview. The fifth interview immediately followed the fourth interview (same day) and it was deemed appropriate to conclude the interviews after this fifth interview. Each of these five interviews was conducted by the primary researcher over the telephone and subsequently transcribed for data analysis.

In this research, a phenomenological approach was taken centering around two broad questions - "What have you experienced in terms of the phenomenon?" and "What contexts or situations have typically influenced or affected your experiences of the phenomenon?" (Moustakas, 1994) Both of

these questions lend themselves to further understanding information related to the research questions of this study. These questions are therefore more meaningfully translated as "What have you, as a successful coach, experienced in terms of your team's success and what has been your impact on that success?"

In an effort to support this question and the previously developed research questions and resulting quantitative data, coaches were asked the following questions after having completed the LSS - Coaches' Version.

1. If you had to name the most important leadership characteristics of a successful coach, what would these be? Why?
2. What type of leadership style or behaviors do you predominantly demonstrate in your role as a coach?
3. Which of these behaviors do you think are most related to the success of your team?

NARRATIVE "Here is a grouping of five commonly cited leader behaviors in sport research. As I read through them you may see yourself exhibiting all of these behaviors to some extent, which is normal. However, most coaches tend to gravitate more towards one or two of these behaviors.

4. Of these behaviors, which do you feel you most often exhibit or tends to be a guiding leader behavior in your coaching role?

5. Which of these five behaviors do you see as paramount to coaching a successful women's collegiate rowing team? Any others not listed?

6. Do you see any of these leadership behaviors as limiting the competitive potential of women's collegiate rowing teams?

7. One of the reasons I initiated this research was my interest in how rowing coaches were able to keep substantial numbers of women on the team despite them being in perhaps the 3rd or 4th boat. How do you feel you are able to successfully do this?

Themes

Each of the five coaches completed the interview. Interviews lasted between 25 and 56 minutes depending on the depth of information and insight coaches were able to provide. Based on the experience of these successful coaches, a framework can be constructed to understand the core competencies necessary to developing a successful collegiate women's rowing team. Please see Figure 4.11.

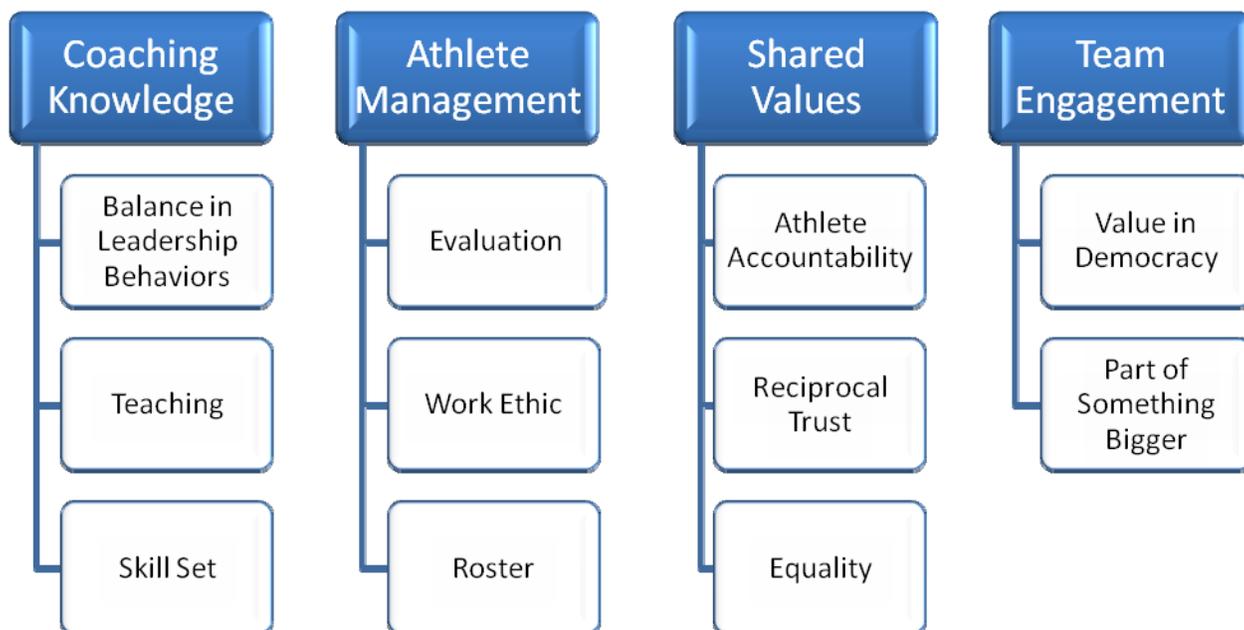
Figure 4.11 depicts the relationship of four critical areas developed from the interview data. Each of these areas - coaching knowledge, athlete management, shared values, and team engagement is a component to leading a successful collegiate women's rowing team. This research has not concluded a hierarchy or level of importance among the four components, but the qualitative data gathered

support the fact that each of these is critical and exists in each of the most successful Division I women's rowing programs. Each of these four components is further developed in Figure 4.12.

Figure 4.11 Components to Leading Successful Collegiate Women's Rowing Teams



Figure 4.12 Critical Areas to Successful Division I Women's Rowing Teams



Out of respect for each coach's anonymity, coaches will be referred to as Coach A, Coach B, Coach C, Coach D, and Coach E throughout the following description of findings.

Coaching Knowledge

Interview data demonstrated paramount to everything else is a coach's knowledge, including the ability to balance leadership behaviors, consistently look for new and innovative ways to teach, and possession of a common skill

set. Each of the interviewed coaches emphasized this as a core competency.

Coaches use a variety of leadership behaviors to achieve their desired goals. Using the five leadership behaviors in this research, (e.g., training and instruction, autocratic, democratic, social support, and positive feedback) coaches described using each of these leadership behaviors with their teams.

Coach A shared the following with respect to this concept:

I think most of it is trying to decide when to use those (leadership behaviors). I think that's what a lot of it is. Knowing and figuring out when. . .you can't be an autocrat all of the time. Otherwise you've got a revolt on your hands. You got nobody that's going to be motivated. You can't be so technical that you're not motivating them to pull hard. I think most of it is not so much one or the other; it's a matter of choosing the right one. I think all of them (leadership behaviors) are necessary, it's just a matter of timing.

Coach B concurs in his analysis of the leadership behaviors he exhibits. When asked which of the five leadership behaviors are paramount to a successful team, he says:

I would say the positive feedback and also the social support because I think to be successful at the collegiate level you have to build a strong team. There's plenty of teams out there that get better

recruits than ours. . . but we've had some very successful teams and you've got to build a strong environment. I think in building those teams all five of those behaviors are really important to building the team.

A third coach, Coach C, provides a detailed example illustrating the importance of varying one's leadership behaviors.

I don't think there is any one thing. Like I said before, I think there are fractions of each one that are important. You need to be autocratic sometimes. I think that sometimes if you are too democratic then you get lost in the shuffle. It is like rowing by committee. Nothing gets done. I made a mistake like, I'll say something like, "OK, guys, I am gonna leave it up to you whether you practice again today" at a regatta. You know, you get there a day early and you practice once and it's a pretty good practice or something and I will leave it up to you whether you practice again. And then it's like half the boat wants to practice again and half doesn't and it's like anarchy. Now I just say, "we're not practicing this afternoon" or "yeah, we are." And they are like, "yeah, OK." You need to exhibit leadership...and I think positive feedback is really important as well, but sometimes too much of that is not good...it is just a balance of all that stuff. I think the art of coaching is being able to balance those things into a formula that kicks them in the butt sometimes and strokes them sometimes. So I think it is a blend.

In addition to this concept of a coach utilizing a host of leadership behaviors, coaches also commented on the detrimental nature of utilizing any one of those behaviors too frequently.

Coach B continued his assessment of the importance in using a variety of leadership behaviors with this statement:

I think when it becomes too much of any behavior, especially social support or positive feedback, then you lose sight of what it is. You are here to compete. That's where you need the autocratic behavior.

Similarly, Coach D concurs with this concept as well. She agrees that focusing on only one type of leadership behavior would not be productive:

If I were to use just any one of those behaviors, that would be detrimental. That would not be taking my athletes into account. Everyone needs different things, you know?

Coach A also agrees with this and argues that the ability to use other leadership behaviors, not only the leadership behavior you are most comfortable with, is essential for leadership:

If you use too much of any of those, you're in trouble. Because it ends up either you give the athletes too much power or not enough. . . like I said my strength might be in the first one, but you've got to go to all of them otherwise you're not a leader. . . or you're probably not a very good one.

These insights support the ideas in Chelladurai's Multidimensional Model of Leadership, measured through the Leadership Scale for Sport, that coaches must take into

account their athletes and their team's unique situation in order to effectively utilize each of the five leadership behaviors addressed in the LSS.

A second theme arising under this key area is the concept of consistently looking for new and innovative ways to teach. Different athletes have unique ways in which they learn. It would not be effective to use one pedagogical style with an entire team all the time.

This is demonstrated in Coach C's comments on the topic. He comments on how he dialogues with athletes:

Is that clear for you? Does that make sense?...how can I say it better or is there another way that I could tell you?

He also mentions incorporating the use of analogies to clarify for athletes:

I try different analogies or whatever, you know? Like "have you ever water skied? Yeah well, hang on the oar like when you are water skiing."

Coach E mentions a preference to convey things in alternate formats:

Sometimes I try to show them what I want them to get and I may then follow that up with something else like a discussion about it. So now I've showed you and I've told you. Are either of those helpful? I try to find new ways to get this stuff across to the girls. Things are never the same one year to the next. One group might be quicker at picking things up with

verbal instruction while another year they may need me to show them stuff.

The final theme in this area is the possession of a common skill set. Collectively, the coaches agreed successful coaches need to have certain skills or be able to acquire those skills to be effective as leaders.

Common skills mentioned by all five coaches include demonstration of leadership, ability to develop a vision, know what the end product should be, be a good listener and problem solver, and possess the ability to know your audience.

Athlete Management

One of the skills key to developing athletes is the ability to provide them with frequent evaluation and feedback of specified performance indicators, instilling a common work ethic in each athlete, and developing a roster of stability, rather than a roster composed of a small percentage of "superstars."

Common among each of the five coaches was the theme of frequent feedback, not to be confused with positive feedback. It isn't that athletes are not receptive to positive feedback, but that athletes desire *frequent* feedback in an effort to understand their progress or lack

of progress. They also use the feedback to assess their placement in a specific boat and to set future goals.

Coach A verbalized this theme to the greatest extent and his comments were supported by similar comments among the other coaches. He says:

We do a lot here, a lot of I guess you can call them games, but they're just areas with certain standards that need to be met and we help them learn those standards and also try to help them figure out how to meet those standards. . . Standards, like we have four areas. . . one that's a precision standard, so a technical standard when you are rowing. We do some things where we actually grade them. We'll grade their catch; we'll grade not just what their catch is but what surrounds the catch. That might be their weakness. So they each get a grade like they would in a class. It's just a way to engage them a little bit more. . . once you have the division established, then it's a matter of what's the most important thing here, how do we measure them? How do the athletes know that they're doing it right, doing it wrong. . . what are those things?

He goes on to discuss that goals need to be based on the standards you set and athletes need to have a way of knowing how they can get better.

Coach C provides another insight into the area of feedback in describing his effort to spread praise around for different reasons:

Especially during winter training, when everybody's training together and it's all a big group and they're not separated into boats and all that stuff, I look for opportunities to mention in front of the whole

group that Jane, and it's usually someone in like the 3rd 4+, . . . I'll say "Jane really impressed me today. She worked so hard. And she just pushed herself harder than anybody out here today." Sometimes I praise a top kid, but they're getting praised from being at the top of the class and being the fastest runner and everybody notices it. I'll say something to that kid like, "Good stride so and so, or whatever." I'll say "wow" to someone that's right in the middle of the pack on most runs that is going faster, I'll say, "Man, you're turning into a runner! Look at you!" That kind of stuff. . . I look for ways to praise the lower rung kids so they feel more a part of it without it going overboard and it becomes like obvious that's what I am doing. I look for opportunities to do that and I think that means a lot to those kids. And it also helps the other kids recognize they're contributing-that those lower kids are contributing as well.

A final component, and reiterated by Coach B, Coach D, and Coach E, is the concept of progression. Athletes need feedback on how they are progressing against the standards and goals. They need feedback about their status on the team. This would seem to be very specific to rowing due to the nature of the sport and the ability to measure a wide variety of components for each athlete. Whereas on a softball team, a second baseman can not necessarily determine if she is doing better than the third baseman, in rowing, each athlete is able to possess enough knowledge using set standards to determine her placement amongst each of her teammates. Therefore, this feedback process allows

coaches to keep athletes continuously motivated even if they are in 50th place on the team. This athlete can feel a sense of accomplishment in her ability to move up 8 places, possibly affording her an opportunity to be in a more competitive boat.

A second theme drawn from the interviews was the concept of instilling a common work ethic in each athlete.

Coach B discusses his perspective on this:

Everyone's effort is valued. The two biggest things on our team are attitude and effort. If someone doesn't give a good effort or has a bad attitude there really is no place for them.

Coach E concurred with this as well, stating he expects that all athletes give 100% effort in practice and races and they approach things with a positive attitude. Taking another approach to the concept of work ethic, Coach D discusses her desire to see passion in her athletes:

As a coach, I have to bring passion or, I guess, be passionate about our team and our goals. I expect that of the team as well. They need to be passionate about what we are doing.

The final theme in this section is the development of a roster consisting of a large number of above average and stable athletes as opposed to a roster composed of a large number of athletes with a small percentage of "superstars."

A number of the coaches placed an emphasis on the importance of "who" was on the team. Coach B was most emphatic about this area in comparison to other coaches interviewed:

I would say our team is most likely to change from a number of teams from one year to the next, like say in 2007 and 2008 the team that races us from one year to the next changes by about 50%. At least half the team that races at one year's NCAA is not going to race the next year. Now whether it's graduation or kids quit, you have to be honest. We took a big jump a few years ago when I stopped trying to do things for our kids. We were always worried about kids quitting like, "who's gonna quit?" I stopped worrying about that a few years ago. If they're only going to be on the team for a year, why not get the most out of them for this one year? Because the kids who are working for two years, well let's just work them really hard for these two years and let's go as fast as we can. We hadn't been consistently big before that. We took a big jump from being invited to the top three or winning NCAAs. So I think we just need to recruit a bunch of good kids. All you need is 20 rowers and I think we had 30 healthy rowers at the end of last season.

In summary, this coach stresses the importance of quality rowers willing to work hard over the importance of the top recruits coming to your program. A coach that can get the most out of the rowers available on the team will undoubtedly experience some degree of success. Unless a coach's numbers are too low to compete, falling numbers due

to injury or rowers quitting may not negatively impact success.

Shared Values

When developing a roster, it is also of critical importance to understand an athlete's ability or aptitude to adapt to the team's shared values. Common values noted were accountability of the athletes, reciprocal trust between the coaches and the athletes and amongst the athletes themselves, and equality.

Coaches A, B, C, and E all mention accountability of the athletes as key to their respective team's success.

Coach A explains:

I think the next component to all of this is once you get an idea of what the athletes are thinking and what you want, you then have to figure out a link to hold the athletes accountable to what you want. So they got to buy into your program and say, "OK, I understand his vision, now how do I get there? What steps do I need to take? And how can the coach help me with that?"

A second theme emerging from the data is the idea of trust. Successful coaches value trust and expect their athletes to embody this value as well. Trust needs to exist between the coach and the athletes and it also needs to exist amongst the athletes. Athletes want to know they can trust their coaches and their teammates to have their

best interest in mind and to also be simultaneously working towards the team's goals.

Coach B supports this notion of accountability and trust among his athletes:

Placing trust in them goes a long way. It's one of those powerful things I can say as a leader is, "I trust you." When I say, "I trust you" to them, I think that puts a lot of responsibility on their shoulders and they want to live up to that trust.

Coach D suggests that the most important leadership characteristics is honesty:

If I had to say what is the most important trait of a leader, I would say honesty – for the team too, I think. You have to be trusting of one another and forthright in everything you do.

Other coaches also suggest that being truthful and genuine with the athletes and never lying to them is critical. Athletes need to know their coach is not hiding information from them or giving them misinformation.

The final theme associated with shared values is the notion of equality. Coach C emphasizes that athletes need to be treated equally as people. His goal is to assist athletes in becoming happy, productive people despite their team position. Similarly, Coach E feels that a coach needs to incorporate people, to constantly engage athletes – all athletes, and to be upfront and treat everyone the same.

When prompted, coaches became very passionate about this issue of equality. They each felt strongly that athletes in a 3rd or 4th boat need to feel as if they are being treated the same as those in the 1st or 2nd boat. This did not necessarily encompass equal attention, but it did encompass equal opportunity and personal treatment.

Team Engagement

A final central theme in the interview data involves the civic engagement of the athletes. This theme should not be confused with engagement of the athletes with an outside community, but rather, team engagement defines the team as the community whereby athletes are engaged with their team. Highlighted themes in this area include a value in democracy and a feeling that one is a part of something bigger.

Athletes as a group, as verified in the aforementioned quantitative results using the LSS - Preferred Version, expect some level of democracy on their teams. Fortunately they do not expect this to be a dominant leader behavior, because the coaches interview data support the idea that they understand the importance and the value in democracy, but prefer to focus more on perceived democracy. Perceived

democracy describes a concept whereby athletes believe they have a strong impact on the decision making process, but in reality, the areas in which the coaches allow democratic input are not particularly significant or do not have a dramatic impact on the team. For example, Coach B states:

I do the democratic behavior thing here, but it's clearly not a democracy. I do stuff to get their feedback in terms of making decisions, but it's not like let's take a vote whether we should go and race at the Crew Classic this year. I'll just ask them their opinions on things and most of it is that they feel a sense of ownership, not because I really care what it is they are deciding. For example, we'll be doing ten minute pieces. I'll say, hey Mary, what are the stroke rates for this one? When Mary decides to do five minutes at a 22, 4 minutes at whatever, and one minute at whatever, she feels like she has ownership. I don't really care what the stroke rates are, but for them to feel like this is my piece; I'm the one who decided the stroke rate for this.

Finally, athletes want to feel like they are part of something bigger. All five coaches mentioned this in some way. The agreement on this topic was unanimous in that each coach expressed this as a key to understanding how to maintain numbers, which is critical for NCAA Championship selection as a team. Teams must have at least 20 rowers and 3 coxswains at a minimum to be successful, with most teams averaging much higher numbers than that. With only 20 rowers, a team has no room for flexibility in the event

of ineligibility or injuries - given that an NCAA team invitation requires a minimum of 20 rowers with a 1st eight, 2nd eight, and 1st four. Therefore it has become critical to maintain a solid group of athletes. Teams with a large number of athletes, often in excess of 40 rowers, are positioned well to adapt to these unavoidable situations.

Coach B places emphasis on the process with his team and not on the individuals to strive for this concept of being a part of something bigger:

We're not a touchy feely team and I think it's really important that we aren't. Practice needs to be a good environment, but a learning environment, not a social one. Where it's OK to mess up, we can make mistakes because we learn from mistakes, but it's not like this touchy feely, *kum ba yah* team. We make it clear there is a big difference between being a friend and being a teammate. A friend is someone you can go on their shoulder to cry on when you're having a bad day. As a teammate, it's gonna be like give me a kick in the head or kick in the butt and hey like you need to do better. You need to step up because we are in this together.

When asked what it was he did to maintain depth on his team, Coach C responded:

We talk about that a lot as a coaching staff. We just go, "why is so and so still rowing?" There must be something going on that's very attractive to keep her at it. . . maybe that she's involved in this and that she can call herself a rower. People say, "You're on the rowing team? You guys are really good aren't you?" She can say, "Yeah we are." It doesn't matter that she's in the fourth four or something. . . It's

also like I'll say, "Look, you know the varsity eight is the flagship, everybody knows that. Then the second varsity is a close second, then the varsity 4+ and the 2nd 4+, 3rd 4+, and 4th 4+. You know what, if we succeed, it's because the people that aren't in those top boats have been pushing the people that are. If the varsity eight wins then somebody in the 4th 4+ can take credit for that because they pushed the 3rd 4+ person that's pushing the 2nd 4+ person that pushed the 1st 4+, that pushed the 2V person that has pushed the varsity person. And so don't feel like you're not a part of something or that you're not important. Everybody on this team is important to the overall success of the team."

Discussion of the Research Questions

A discussion of each research question and the corresponding data follows.

1) What leadership behaviors do successful and other coaches exhibit from their perspectives? The data for this research question are most easily understood by looking at the rank order of each of the five leader behaviors in the LSS. Successful coaches exhibit each of the five leader behaviors but more often they see themselves as utilizing a training and instruction approach, followed closely by the behavior of positive feedback. Autocratic, democratic, and social support behaviors are the third through fifth respectively in terms of their self-reported tendencies towards these leader behaviors.

Both successful coaches and other coaches focus on training and instruction leadership behaviors and positive feedback leadership behaviors. This is a key finding in this research. The research design was created to differentiate leadership behaviors among successful and other coaches, but the findings demonstrate the differences are not significant when looking at the five leadership behaviors in the LSS. While the rank order of the final three behaviors does vary slightly between successful coaches and other coaches, significance was not found. Perhaps significance would be found if the population was greater - additional coaches participating in the survey might be helpful.

It is interesting, though, to look at the varying rank order of these behaviors between successful and other coaches from an applied perspective. Successful coaches see themselves as more autocratic to some extent than do other coaches based on these results. They rank this leader behavior as third out of five variables whereas the other coaches rank this behavior fifth out of the five variables. However, without statistical significance, this

cannot be construed as important. Further research on this topic is warranted.

Mainstream media inform coaches that women prefer to be part of a more democratic organization or team, but the data from this research may call this into question (Heim, 1992; Messner, 2002; Zauderer, 2006). While women may prefer to see democratic elements, they may be more successful in a less democratic environment. Of equal importance is the knowledge that autocratic behaviors are the least preferred behaviors of women in the majority of respondents in this research and therefore elements of democracy still need to be in place.

2) From the perspective of the athletes of successful and other coaches, what type of leader behaviors do their coaches exhibit? The data gathered to answer this research question were statistically significant, indicating a close relationship among both successful coaches and other coaches in terms of their leader behaviors. In keeping with the concept of rank-ordered leader behaviors, athletes on successful teams rank the order of their coaches' tendencies toward the five leader behaviors to be most inclined towards training and instruction, closely followed

by positive feedback. Autocratic, social support, and democratic behaviors are third through fifth respectively.

Athletes on other teams also rank the order of their coaches' tendencies toward the five leader behaviors to be most inclined towards training and instruction, again, closely followed by positive feedback.

Autocratic, democratic, and social support behaviors are third through fifth respectively. The difference herein lies in the fact that these athletes report experiencing more democratic behaviors versus social support behaviors than do athletes on successful teams. This demonstrates a difference between athletes on successful teams and those on other teams. Athletes on successful teams report experiencing democratic behaviors least often among the five leader behaviors. Additional research with a larger population would prove helpful to understand if there is statistical significance among these final three behaviors. Again, the data gathered for this question do not support the popular literature concerning women's sports (Heim, 1992; Messner, 2002; Zauderer, 2006). Popular literature suggests coaches of women's sports should place an emphasis on democratic behaviors, while the data from this research

support the idea that women prefer training and instruction leader behaviors and positive feedback leader behaviors.

3) What type of leader behaviors do athletes on successful and other women's rowing teams prefer? An understanding of this question again warrants the use of a rank order positioning of the leader behaviors. Athletes completed a separate scale measuring their preferred leader behaviors within the context of their current team. Those athletes on successful teams ranked their preferred leader behaviors in the following order - positive feedback, training and instruction, democratic, social support, and autocratic, respectively. Those on the other participating teams ranked their preferred leader behaviors in the following order - training and instruction, positive feedback, democratic, social support, and autocratic. However, the degree to which all of the women preferred both training and instruction behaviors and positive feedback was very close and is the most important piece of these data.

Therefore, the main point of interest to take from these data is the concept that these two behaviors are equally of interest to all female Division I rowers,

regardless of their team's success. Women are looking for coaches to instruct them on how to improve and to provide positive feedback regarding their progress. As a reference, it is important to understand the definition of these terms as defined by Reimer and Chelladurai. Training and instruction is defined as coaching behavior aimed at improving the athletes' performance by emphasizing and facilitating hard and strenuous training; instructing them in skills, techniques and tactics of the sport; clarifying the relationship among the members; and structuring and coordinating the members' activities (Reimer & Chelladurai, 1995). Positive feedback is defined as coaching behavior that reinforces an athlete by recognizing and rewarding good performance (Reimer & Chelladurai, 1995).

Additionally, analysis of each team and their coach was helpful to understanding this particular research question. The preferences of the athletes and the congruency with their coaches' actual behaviors were of interest. Obviously, it would be likely to have differences among congruency rates within each of the groups. However, the data demonstrate similar levels of congruency between the rowers and coaches on successful

teams and varying levels of congruency among the rowers and coaches on the other teams. Referring back to the sport leadership literature previously reviewed, this can be explained using the Multidimensional Model of Leadership. In this model, teams are more successful or experience more satisfaction with their participation when their coaches are aware of the unique interaction among leader characteristics, member characteristics, and situational characteristics. Each of these three elements impacts leader behavior (Chelladurai, 1978, 1990, 1993a; Chelladuari & Carron, 1978; Sherman et al., 2000).

A different but consistent variation in preferred and actual leader behaviors may demonstrate a unique ability possessed by successful coaches to understand and interpret their team's member characteristics in association with their situational characteristics. For example, a coach simply trying to meet the needs of the team members' leadership preferences would be in error without also assessing and understanding the unique contribution the situational characteristics have on the team's performance (Chelladurai, 1978, 1990, 1993a; Chelladuari & Carron, 1978; Sherman et al., 2000).

In this research, successful coaches, perhaps without fully conceptualizing their actions, provide their athletes with a variety of leadership behaviors, but in four of the five leader behaviors analyzed, they provide less than what their athletes desire. While this does not support previously conducted research (Anshel & Straub, 1991), the case can be made that this is an unusual but logical approach. If athletes have all their needs met in terms of leadership, there is little room for determination "to prove oneself" to the coach. Additionally, complete satisfaction with the coaching leadership behaviors may not encourage motivation to improve as individuals or as a team. It may also provide a heightened sense of security and complacency, neither of which contribute to success for teams.

4) Does an athlete's team position, specifically their boat placement (1st boat, 2nd boat, 3rd boat, etc.), affect their assessment of the leader behaviors of their head coach? This research question was added as a point of interest and a hypothesis on the part of the researcher. Interestingly enough, significance was found for the variable for social support and boat placement. Athletes

in the first eight ranked their coaches higher in terms of social supportive leader behaviors. In the sport of rowing, most varsity and junior varsity boats practice at the same time, but while the coaching staff may share coaching duties among the crews, the first eight is the premier boat, and is therefore typically given priority with the head coach. In this research, athletes were asked to respond to the survey considering the leader behaviors of the head coach. Because of the typical preference given to the first eight by the head coach, it is likely these women may have more contact with the head coach and may have a more familial relationship with their head coach. A more familial relationship may impact how these rowers evaluate their coach's level of social support behaviors.

General Discussion

In summary, the use of mixed methods in this research design enriched the overall process. While the quantitative data gathered from the Leadership Scale for Sport provided numerical evidence for differences in leadership behaviors among coaches, the qualitative data gathered in this research provided a rich look into the ideas, strategies, and guiding principles of successful

coaches. Each group of data supports the other consistently.

Of concern is the response rate of coaches and athletes. Upon further investigation, many coaches reported two reasons why the response rate may not have been as high as originally expected. First, many schools are concerned with their athletes being asked to participate in research and how often they are being asked to participate in these studies. Second, and along similar lines, is the fact that a number of coaches reported their athletes had already participated in similar studies this year and they did not want to burden them with additional requests to complete questionnaires.

However, the data gathered from the participating teams did prove useful. The quantitative data gathered from the Leadership Scale for Sport demonstrate a unified desire of athletes to have their coach focus on positive feedback and training and instruction rather than other leadership behaviors. It has been suggested in the popular literature that in order for women's coaches to be successful, they must focus on creating an atmosphere of social support (Beam et al., 2004; Zauderer, 2006). The

data gathered in this research would not support this notion. Conversely, female athletes do not look to their coaches as a provider of social support. These data suggest female athletes are looking to improve in their sport and receive positive feedback concerning their progress and support previously suggested claims concerning preferences of female athletes (Heim, 1992; Messner, 2002; Zauderer, 2006).

This is clearly one of the most important findings in this research. Many experienced coaches, qualified to coach Division I programs, have not previously coached women; their experience is largely with men's programs. These coaches may be cautious when making the switch to women's sport when, in reality, the caution is unfounded.

A second major finding in this research is the similarities, rather than the differences, between the successful coaches and the other coaches. Most coaches, regardless of degree of success, demonstrate similar levels of the five leadership behaviors in the LSS - training and instruction, democratic, autocratic, social support, and positive feedback. As a result, it is necessary to determine if teams are not as affected by their coaches'

leadership behaviors, as defined by the LSS, what are the key factors affecting them? Factors affecting performance may include the delivery of these leadership behaviors, as discovered in the qualitative portion of this research, or the way in which coaches communicate with athletes.

Other factors contributing to success may include purely administrative factors such as the overall academic competitiveness of the school, the quality of the athletic department and its programs, or the athletic department budget. In an effort to substantiate these suggested factors as contributors to success, data from U.S News and World Report's 2009 National Universities' rankings and the 2007-2008 National Association of Collegiate Athletic Directors' Directors' Cup standings were reviewed for each of the 86 Division I schools with women's rowing programs.

In the 2009 U.S News and World Report rankings, of the 32 teams that have received at least one NCAA Women's Rowing Championship bid since inception, only 2 of these teams (6.3%) were not in the top 100. Among the 54 teams that have never received a bid, 19 (35.2%) were not ranked in the top 100

(<http://colleges.usnews.rankingsandreviews.com/college/national>).

According to the NACDA Directors' Cup standings, only 3 of the successful schools (9.4%) were not in the top 100, whereas 12 (22.2%) of the other schools were not in the top 100 programs (<http://www.nacda.com/directorscup/nacda-directorscup-current-scoring.html>). While this was not the purpose of this research - to determine what makes teams successful, it does call into question how funding, school reputation, athletic department success overall, etc., has a potentially strong impact on women's rowing teams' propensity for success. High school seniors interested in rowing in college may be inclined to attend schools with better reputations. Additionally, as rowing teams depend largely on sizeable numbers of walk-ons, women attending schools with stronger athletic programs may be more experienced athletically or familiar with athletics.

An additional finding of importance is that boat position may affect how athletes view their coaches. In this research, athletes in the 1st boat were more likely to view their coaches' social supportive behavior as higher than athletes in other boats. This may be explained by

more contact with the head coach as an athlete's boat position improves. Athletes in the 1st boat of their team are likely to have much greater contact with the head coach of their team. While this may be an interesting finding, it should not be seen as a motivation for behavioral change. Athletes, regardless of boat position, do not prefer this behavior from their coach to the same extent they prefer training and instruction and positive feedback behaviors. Therefore, it does not appear to be an indicator of success or improved performance. This is in line with current research findings (Cumming et al., 2006).

While the quantitative data were valuable, they did not provide the richness or depth found in the qualitative data in this research study. Of most interest is the creation of the four critical areas to successful Division I women's rowing teams, including coaching knowledge, athlete management, shared values, and team engagement. Coaching knowledge is inclusive of balance in leadership behaviors, teaching abilities, and possession of a skill set for coaching. Athlete management is inclusive of evaluation of athletes, work ethic, and roster management. Shared values include athlete accountability, reciprocal

trust, and equality. The final component, team engagement, is inclusive of value in democracy and being a part of something bigger.

Critical to understanding the importance of the creation of this model is knowledge of the coaches. Each of the five coaches participating in this interview is highly successful. Despite this element of similarity, their degree of success, they could not be more different. As the interviewer of each of these coaches, it was intriguing to see how different each coach was in personality and approach. Most of the coaches had been coaching for over 10 years and expressed a particular benefit to long term coaching. This benefit is not necessarily associated with long term coaching at the same school, but rather, having a greater number of years in the role of a coach.

The coaches believe their success may also be indicative of their willingness to change and adapt throughout their careers. Popular leadership literature suggests one may be able to acquire or improve specific traits that will enable one to be a successful leader. The personalities and delivery methods of these coaches could

not have been more unique and different from one another. Some of the coaches interviewed were aggressive and confident in their leadership behaviors, while others presented their opinions hesitantly. Additionally, their verbal descriptions of leadership examples varied in terms of delivery, but were quite similar in content.

The leadership styles and approaches previously discussed do not lend themselves well to explaining the success of Division I women's rowing. The interviews gave insight into the leadership styles and behaviors the coaches possessed that the LSS could not have done (Maxwell, 2005). In the interviews, each of the coaches alluded to having and using some elements of transactional, transformational, and charismatic behaviors.

Many coaches preferred to use the term "influence" in conjunction with leadership, rather than specify certain behaviors. This term is similar to "power" when one considers the three types of power - position power, personal power, and referent power (Laios et al., 2003). Many of the themes resulting from the interviews can also be compared to these types of power and may better explain their leadership behaviors.

The one theory that may be supported by the research findings of this study is the Leader-Member Exchange Theory. In this theory, followers vie to find their niche within the goals of the leader to be seen as important or critical to the leader's goals (Graen & Cashman, 1975; Linden & Graen, 1980; Northouse, 2007). In the fourth research question, evidence substantiates this. Rowers in the first eight more frequently see their coach as demonstrating social support behaviors than their teammates. This is a result of the faster rowers having more contact with the head coach because of their athletic ability.

However, these coaches also had difficulty describing their leadership behaviors and styles or pinpointing their unique leader behaviors. Each communicated different behaviors and styles based on the situation as described in the Multidimensional Model of Leadership (Chelladurai, 1978, 1990, 1993a; Chelladurai & Carron, 1978; Chelladurai & Saleh, 1980; Sherman et al., 2000). The current research supports the premise of this model. When coaches are able to assess themselves, their athletes, and the context of the situation, and adapt accordingly, they tend to be more

successful than those who are not able to do this as effectively.

Implications for Future Research

The research methodology for this study was originally designed to include only the coaches and athletes from those teams deemed most successful using the stated criteria. Two significant issues arose from this design. First, determining what "successful" is inclusive of is difficult in any field, but it is particularly difficult in the sport of rowing. Whereas other sports have win/loss records, rowing does not fit quite as neatly into win/loss columns. While teams do host and attend dual meets, it is more common to attend regattas with numerous teams competing simultaneously. An illustration of the measurement difficulty in this sport follows. Teams A, B, C, D, E, F, and G are all competing in 3 events - first eight, second eight, and the first four. Team A finishes first in the first eight, third in the second eight, and last in the first four. Team B finishes last in the first eight and first in the second eight, and first in the first four. Team C finishes third in the first eight, second in the second eight, and did not enter the first four. The

list could continue with each of the teams all finishing in varying places in each event. How do we know who is more successful?

We can attempt to quantify "success," but with each attempt, another researcher could provide an argument as to why the definition is weak. In the conceptual phase of this research, a number of coaches were asked their opinion on quantifying "success." Most coaches agreed with the stated definition used in this research. Some coaches suggested using conference champions as "successful" teams, while others argued this does not take into consideration the fact that some 4th place finishers in a particular conference could easily beat another conference's champion. Boat speed was another suggested variable, but again, there are wind conditions, water conditions, and other weather related variables impacting finish times at every regatta.

In summary, success should be defined as a unique combination of individual and team goal achievement, overall improvement on an annual basis, the experience of the women on the team, and relationships formed and sustained among team members and coaches. Each team and their coaches need to define what success is for their

particular team and re-evaluate this definition on a frequent basis.

The second issue was changing the originally proposed methodology to include all Division I teams as opposed to those receiving six or more NCAA Championship Regatta invitations. The researcher had the opportunity to network with those coaches defined as "successful," prior to them receiving the email notification. Networking with 86 coaches was unrealistic in this situation. Additionally, the researcher was unaware of supposed similar studies in which the teams had recently participated. A minimum of six coaches emailed their support and desire to help, but they had received recent pressure from their athletic departments to decline participation in these types of studies as it put undue pressure on athletes.

Two key recommendations are suggested to improve future research in this area. Future research should be of a qualitative design and, if quantitative is deemed necessary, surveys should be done in person or be done online as a group with a moderator. The moderator would be in the same room as the athletes and walk the athletes through the survey introduction and answer any questions

that may arise. The qualitative design lends itself to this type of leadership research. The data gathered from the in-depth interviews were rich in nature and unexpected. Both the interviewer and the interviewees were able to become engaged in the topic and request clarification throughout the interview. The qualitative inquiry also led to the development of a model for success, which is the most significant result of this research.

Secondly, if future leadership research in this field warrants a quantitative inquiry, it is suggested that this be completed in person, either in an electronic format or using traditional paper and pencil tests. A moderator to introduce the study, and available to assist participants throughout testing as necessary or appropriate, would result in a much greater response rate. In addition, more people from each team would respond as opposed to a select group of respondents.

Implications for Practitioners

Paramount to any other motivation for this research was the benefits it could provide to current and future coaches. Important and critical findings for coaches and

athletic administrators arose from both the Leadership Scale for Sport instrument and the subsequent interviews.

Competitive female rowers are most interested in a coach that primarily provides feedback about progress and that this feedback is given in a positive way. Closely followed by this preference is a desire to have a coach who focuses on instructing them in the sport of rowing. Many coaches cringe at the concept of positive feedback, but usually due to a misunderstanding of what positive feedback entails. The misconception is usually centered around the notion that a coach needs to be positive in all communications with athletes and should not criticize athletes if they are to be considered a "positive" coach. This is not the case. A coach can be critical of athletes and deliver positive feedback. In fact, it should be understood the two can be the same. For example, if a rower is consistently late at the catch, a coach can deliver the following message, "Jane, I can see you are working on your catch timing. You are still late into the water as we talked about earlier this week. I think if you allow yourself to square up slightly earlier, you may be able to get the timing right. Try working on that for the

duration of practice.” In this example, the coach begins by taking notice of the athlete’s efforts. This immediately puts the athlete at ease in most situations rather than placing her in a defensive position. The coach then gives the athlete specific feedback about how to improve the catch. This example of positive feedback demonstrates how a coach can be simultaneously critical and positive.

Kouzes and Posner (2006) discuss the importance of positive feedback of a critical nature in their book, *A Leader’s Legacy*. They begin a discussion on this topic with a quote from a past presidential advisor and respected leadership scholar, John Gardner. He is reported to have said, “Pity the leader caught between unloving critics and uncritical lovers.” (Kouzes & Posner, p. 27) While this quote is directed at leaders, it can also be relevant for followers. Whereas athletes typically do not appreciate constant berating from coaches, they equally are not appreciative of coaches who bestow constant praise. Making athletes feel inept is not positive, but neither is placing them on an undeserved pedestal. Athletes need to know

their coaches will be honest with them and deliver criticism of their performances in an honest manner.

A third point of interest revolves around the fact that each of the successful teams in this research collectively preferred stronger leadership behaviors from their coach than they reported experiencing with the exception of autocratic behaviors. Athletes reported autocratic behaviors to be at a level higher than they prefer. Athletes on teams not defined as successful in this research did not have a clear pattern of congruency between preferences and actual behaviors. Therefore, one can conclude that this incongruence between preferred behaviors and actual behaviors, where coaches provide slightly less focus on leadership behaviors than athletes prefer, is a part of the success equation.

The idea that athletes may be motivated by a slight incongruence between what they prefer and what they experience is logical based on the data gathered in this research. This concept appeared in both the LSS survey results and again in the interviews. One of the coaches clearly explained he would not cater to the demands of the athletes, but he realized the importance of allowing them a

voice and incorporating their wishes into less meaningful decisions. A second example is an athlete looking for increased feedback on her progress. While a high degree of incongruence would not be advisable, as this would likely encourage the opposite of the desired effect, a desire for slightly more feedback may motivate her to push harder with the expectation of more feedback as a result of this increase in action or intensity level. In this way, a coach can garner greater intensity by providing slightly less of a particular leadership behavior than an athlete would prefer to see.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS
FOR FUTURE RESEARCH

Summary

The purpose of this study was to define the coaching leadership behaviors of successful National Collegiate Athletic Association (NCAA) Division I women's rowing coaches. In defining these behaviors, the purpose was threefold: (1) to determine if any relationships exist between successful coaches, the athlete leadership preferences of their team, or the congruency between the leader behaviors with the preferred leader behaviors of the athletes, (2) to understand what these successful coaches believe contributes most to their actual leadership behaviors, and (3) to determine if there is a general consensus among the athletes concerning their coach's leader behaviors, regardless of position on the team.

Study participants consisted of 150 NCAA Division I female rowers or coxswains and their respective head coaches. Each rower or coxswain completed two versions of the Leadership Scale for Sport (LSS). The first version requested the athletes to self-report their preferred leadership behaviors in coaching and the second version

requested the athletes to self-report their head coach's actual leadership behaviors. Twenty coaches completed a third version of the LSS, which requested them to self-report their own leadership behaviors in coaching. Of the participating coaches, a select few (n = 5) were asked to participate in an additional component - a short interview to help clarify their personal leadership behaviors. A unique coaching leadership model for successful women's rowing teams was subsequently developed from these interviews. The model has four key variables: coaching knowledge, athlete management, shared values, and team engagement. Coaching knowledge is inclusive of balance in leadership behaviors, teaching abilities, and possession of a skill set for coaching. Athlete management is inclusive of evaluation of athletes, work ethic, and roster management. Shared values include athlete accountability, reciprocal trust, and equality. The final component, team engagement, is inclusive of value in democracy and being a part of something bigger.

Conclusions

This study was comprised of the following four research questions:

1. What leadership behaviors do successful and other coaches exhibit from their perspectives?
2. From the perspective of the athletes of successful and other coaches, what type of leader behaviors do their coaches exhibit?
3. What type of leader behaviors do athletes on successful and other women's rowing teams prefer?
4. Does an athlete's team position, specifically her boat placement (1st boat, 2nd boat, 3rd boat, etc.), affect her assessment of the leader behaviors of her head coach?

After reviewing the data gathered in this study, including both the survey and interview data, the following conclusions were drawn:

1. Successful coaches focus predominantly on leader behaviors associated with training and instruction. This behavior is followed closely by behaviors associated with positive feedback. Other coaches also focus predominantly on these two leader behaviors of training and instruction and positive feedback.

2. The athletes of both successful coaches and other coaches concur and rank their coaches highest in each of these areas - training and instruction and positive feedback.

3. Athletes on both successful and other teams have a preference towards leadership focused on positive feedback and training and instruction - more so than any of the other leadership behaviors.

4. The data demonstrate athletes in the 1st eight are more likely to rate their coaches higher in the area of social support. These athletes feel their coaches focus on this area more than athletes in other boats.

Recommendations for Future Research

While these findings are valuable and do support Chelladurai's Multidimensional Model of Leadership, further research is warranted to develop this supporting information.

1. This research should be replicated using NCAA Division I male rowers and coxswains and their coaches to determine if the results vary by gender.

2. Qualitative data collection could be expanded to include interviews with athletes. While not critical to

provide answers to the research questions in this study, athletes may be able to provide insight into their coaches' behavioral patterns and be able to more clearly articulate their leadership preferences in an interview format.

3. This research could also be expanded to include scholastic rowing programs. It would be of particular interest to note if scholastic rowers have differing preferences in terms of coaching leadership behaviors. Scholastic rowers may also vary by gender in terms of their leadership preferences.

4. An examination of additional women's sports and their preferences for leadership behaviors relative to the competitiveness or successfulness of their programs would be of interest.

5. Future research should also focus on informing coaches of their teams' leadership expectations and preferences and developing a curriculum for coaches to understand how to synthesize their natural leadership characteristics with the preferred characteristics of their teams.

6. Further development and affirmation of the newly created "Four Critical Areas to Leading a Successful Team" should be explored.

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APPENDIX A
EMAIL LETTER REQUESTING THE HEAD COACH'S SUPPORT OF THIS
STUDY

Dear Coach,

I am a Ph.D. student at Temple University and am collecting data for my dissertation. I am looking at coaching leadership among **Division I Head Women's Rowing Coaches**. There is very little research in the area of coaching in the sport of rowing and it is my hope you will help us to further this weak body of knowledge. The more teams that participate in this short survey, the more meaningful the data will be.

If you are receiving this email, your school lists you as the Head Coach on the school's website. If this is incorrect, I would appreciate it if you could give me the correct email address of the Women's Head Coach at your school.

I appreciate your support in this project. This project is twofold—there is a survey component and an interview component. The survey is done completely online and I will be sending you a second email with a link to the survey. I would appreciate it if you could forward this email to your athletes (this protects their anonymity). Athletes that should receive this survey would be athletes you directly coach. Novice athletes should be excluded unless you are their primary coach. The survey takes approximately 15-20 minutes to complete. You will also fill out a survey following the Coaches' link in the email.

The second component, added after a review of the pilot study (done with Division III coaches), is an interview with each coach (not mandatory to participate). **I would be interested in asking you a number of questions about your coaching leadership style/traits, etc.** These interviews can be done over the phone or via email.

If you are willing to assist me with this research, please confirm with me by replying to this email. My goal is to have you and your athletes complete these as soon as possible.

Thank you for your consideration.

Sincerely,

Amy Giddings, M.Ed., Ph.D. candidate

amy@temple.edu

267-971-9073 (cell)

APPENDIX B
FOLLOW-UP EMAIL LETTER WITH SURVEY LINKS

Dear Coaches and Athletes,

Coaches, please forward this email to your athletes. Below are the survey links to follow for entry into the survey.

ATHLETES

(Please note the survey will seem as if it repeats itself but it is worded differently in the second set of questions. Pay close attention to what each question is asking you and respond to it with your current HEAD COACH in mind.) Have fun! This should take no more than 20 minutes for you to complete.

<http://www.surveymonkey.com/s.aspx?sm=fQYkG1zKA8VzCehN0C7KA A 3d 3d>

COACHES

(You have a separate survey. Please follow this link for entry into the coaches' version.)

<http://www.surveymonkey.com/s.aspx?sm=gtlY9gppEfPFX6Dz 2fcB exA 3d 3d>

Please email me directly if you have any concerns or questions.

Sincerely,

Amy Giddings, M.Ed., Ph.D. candidate
amy@temple.edu

APPENDIX C
DIVISION I WOMEN'S PROGRAMS AND CORRESPONDING INVITATIONS
TO THE NCAA NATIONAL CHAMPIONSHIP

Division	Team	Total	Total	Total
		Team	At-Large	
Central Division	University of Cincinnati	0	0	0
	Creighton University	0	0	0
	University of Dayton	0	0	0
	Drake University	0	0	0
	Eastern Michigan University	0	0	0
	Indiana University, Bloomington	0	0	0
	University of Iowa	1	1	2
	University of Kansas	0	0	0
	Kansas State University	0	0	0
	University of Michigan	8	0	8
	Michigan State University	7	1	8
	University of Minnesota, Twin Cities	0	1	1
	Murray State University	0	0	0
	University of Notre Dame	1	2	3
	Ohio State University	7	0	7
University of Wisconsin, Madison	4	0	4	
Mid-Atlantic Division	Bucknell University	0	0	0
	University at Buffalo, the State University of New York	0	0	0
	Colgate University	0	0	0
	Columbia University-Barnard College	0	0	0
	Cornell University	0	1	1
	University of Delaware	0	0	0
	Drexel University	0	0	0
	Duquesne University	0	0	0
	Fordham University	0	0	0
	George Mason University	0	0	0
	George Washington University	0	1	1
	Georgetown University	0	1	1
	Iona College	0	0	0
	La Salle University	0	0	0
	Lehigh University	0	0	0
	Loyola College (Maryland)	0	0	0
	Marist College	0	0	0
	University of Massachusetts, Amherst	1	1	2
	University of Pennsylvania	0	1	1
	Princeton University	9	0	9
	Robert Morris University	0	0	0
	Rutgers, The State University of New Jersey, New Brunswick	0	2	2
	Saint Joseph's University	0	0	0
	Syracuse University	1	3	4
	Temple University	0	0	0
	U.S. Naval Academy	0	0	0
Villanova University	0	0	0	
West Virginia University	0	0	0	

Division	Team	Total	Total	Total
		Team	At-Large	
New England Division	Boston College	0	0	0
	Boston University	3	3	6
	Brown University	9	0	9
	University of Connecticut	0	0	0
	Dartmouth College	1	1	2
	Fairfield University	0	0	0
	Harvard University	8	0	8
	College of the Holy Cross	0	0	0
	Massachusetts Institute of Technology	0	0	0
	University of New Hampshire	0	0	0
	Northeastern University	0	3	3
	University of Rhode Island	0	0	0
	Sacred Heart University	0	0	0
	Yale University	5	2	7
South Region	University of Central Florida	0	0	0
	Clemson University	0	0	0
	Duke University	0	0	0
	Jacksonville University	0	0	0
	University of Louisville	0	0	0
	University of Miami (Florida)	0	0	0
	University of North Carolina, Chapel Hill	0	1	1
	Southern Methodist University	0	0	0
	Stetson University	0	0	0
	University of Tennessee, Knoxville	1	3	4
	University of Texas at Austin	0	2	2
	University of Tulsa	0	0	0
	University of Virginia	8	0	8
	West Division	University of California, Berkeley	8	1
University of California, Irvine		0	0	0
University of California, Los Angeles		0	2	2
California State University, Sacramento		0	0	0
Gonzaga University		0	0	0
Loyola Marymount University		0	0	0
Oregon State University		0	2	2
St. Mary's College of California		0	0	0
University of San Diego		0	0	0
San Diego State University		0	0	0
Santa Clara University		0	0	0
University of Southern California		1	8	9
Stanford University		3	1	4
University of Washington		9	0	9
Washington State University	3	1	4	

APPENDIX D
CONSENT FORM

TITLE: Coaching Leadership Behaviors in Successful Women's Collegiate Rowing Programs

Primary Researcher: Dr. Michael Sachs, msachs@temple.edu,
faculty advisor, Kinesiology, College of Health Professions

Secondary Researcher: Amy Giddings, amy@temple.edu, Ph.D.
candidate, Kinesiology, College of Health Professions

We are currently engaged in a study of coaching leadership behaviors in successful women's collegiate rowing programs. To help us gain further insights into this area we will ask you to complete an online survey and a follow-up interview (coaches only).

The data you will provide will be recorded anonymously and your participation and anything you say during the session will be held in the strictest confidence.

We welcome questions about this research at any time. Your participation in this study is on voluntary basis, and you may refuse to participate at any time without consequence or prejudice.

Questions about my rights as a research subject may be directed to Mr. Richard Throm, Office of the Vice President for Research, Institutional Review Board, Temple University, 3400 N. Broad Street, Philadelphia, PA, 19140, (215) 707-8757.

Signing your name below indicates that you have read and understand the contents of this Consent Form and that you agree to take part in this study.

Participant's Signature

Date

Investigator's Signature

Date

APPENDIX E
PERMISSION TO AUDIOTAPE

Permission to Audiotape

Investigator's Name: Amy Giddings, Ph.D. candidate
 Department: Kinesiology Department
 Project Title: **Coaching Leadership Behaviors in
 Successful Women's Collegiate Rowing
 Programs**

Participant:
 Date:
 Log #:

I give Amy Giddings permission to audiotape me. This audiotape will be used only for the following purpose (s):

RESEARCH

This audiotape will be used as a part of a research project at Temple University. I have already given written consent for my participation in this research project. At no time will my name be used.

WHEN WILL I BE AUDIOTAPED?

I agree to be audiotaped during the time period:
 to _____.

HOW LONG WILL THE TAPES BE USED?

I give my permission for these tapes to be used from August 2008 through August 2011.

Data will be stored for three (3) years after completion of the study.

WHAT IF I CHANGE MY MIND?

I understand that I can withdraw my permission at any time. Upon my request, the audiotape(s) will no longer be used. This will not affect my care or relationship with Amy Giddings or Temple University in any way.

OTHER

I understand that I will not be paid for being audiotaped or for the use of the audiotapes.

FOR FURTHER INFORMATION

If I want more information about the audiotape(s), or if I have questions or concerns at any time, I can contact: Amy Giddings, amy@temple.edu, 267-971-9073

Please print

Subject's Name:

Date:

Address:

Phone:

Subject's Signature:

Witness Signature

Date

Witness Signature

Date

Investigator's Name: Amy Giddings
Department: Kinesiology
Institution: Temple University
Street Address: 3302 West Queen Lane
City: Philadelphia State: PA Zip Code :19129
Phone: 267-971-9073

This form will be placed in my records and a copy will be kept by the person(s) named above. A copy will be given to me.

APPENDIX F
DEMOGRAPHIC SURVEY - Athletes

Below is a short list of demographic questions to help us better understand the information provided to us. Your personal information is protected and the data will only be used as a part of all collected data, with no mention of individual names or identifiable information.

Gender

- Male
- Female

What is your current age?

▪

What race do you consider yourself to be?

How many years have you rowed?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

Did you row with a high school team prior to rowing in college?

- Yes
- No

Did you participate in any other (non-rowing) varsity sports in high school?

- Yes
- No

Which college or university do you row for? (This question allows us to group surveys together by team. We will in no way identify you based on this information or share any specific information.)

1. University of Alabama, Tuscaloosa
2. Boston College

3. Boston University
4. Brown University
5. Bucknell University
6. University of Buffalo, the State University of New York
7. California State University, Sacramento
8. University of California, Berkeley
9. University of California, Davis
10. University of California, Irvine
11. University of California, Los Angeles
12. University of Central Florida
13. Clemson University
14. Colgate University
15. Columbia University, Barnard College
16. University of Connecticut
17. Cornell University
18. Creighton University
19. Dartmouth College
20. University of Dayton
21. University of Delaware
22. Drake University
23. Drexel University
24. Duke University
25. Duquesne University
26. Eastern Michigan University
27. Fairfield University
28. Fordham University
29. George Mason University
30. George Washington University
31. Georgetown University
32. Gonzaga University
33. Harvard University
34. College of the Holy Cross
35. Indiana University, Bloomington
36. Iona College
37. University of Iowa
38. Jacksonville University
39. University of Kansas
40. Kansas State University
41. La Salle University
42. Lehigh University
43. University of Louisville
44. Loyola Marymount University
45. Loyola University (Maryland)

46. Marist College
47. Massachusetts Institute of Technology
48. University of Massachusetts, Amherst
49. University of Miami (Florida)
50. University of Michigan
51. Michigan State University
52. University of Minnesota, Twin Cities
53. University of North Carolina, Chapel Hill
54. Northeastern University
55. University of Notre Dame
56. The Ohio State University
57. Old Dominion University
58. Oregon State University
59. University of Pennsylvania
60. Princeton University
61. University of Rhode Island
62. Robert Morris University
63. Rutgers, State University of New Jersey, New Brunswick
64. Sacred Heart University
65. University of San Diego
66. San Diego State University
67. Santa Clara University
68. University of Southern California
69. Southern Methodist University
70. Saint Joseph's University
71. St. Mary's College of California
72. Stanford University
73. Stetson University
74. Syracuse University
75. Temple University
76. University of Tennessee, Knoxville
77. University of Texas at Austin
78. University of Tulsa
79. U.S. Naval Academy
80. Villanova University
81. University of Virginia
82. University of Washington
83. Washington State University
84. West Virginia University
85. University of Wisconsin, Madison
86. Yale University

Are you a port or starboard?

- Port
- Starboard
- Both
- Both sides and sculling

Describe your current position on the team. If you have not been placed in a line-up, please use your best judgment to determine your position on the team.

- 1st 8+
- 2nd 8+
- 3rd 8+
- 1st 4+
- 2nd 4+
- 3rd 4+
- Injured
- Manager
- Other (please specify)

APPENDIX G
DEMOGRAPHIC SURVEY - Coaches

Below is a short list of demographic questions to help us better understand the information provided to us. Your personal information is protected and the data will only be used as a part of all collected data, with no mention of individual names or identifiable information.

Gender

- Male
- Female

What is your current age?

- Under 20 years
- 20-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60-69 years
- 70 years or older

What race do you consider yourself to be?

- Caucasian/White
- African American
- Asian
- Hispanic
- Other (please specify)

How many years have you rowed or did you row?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

Which college or university do you coach for? (This question allows us to group surveys together by team. We will in no way any specific information.)

1. University of Alabama, Tuscaloosa
2. Boston College
3. Boston University
4. Brown University

5. Bucknell University
6. University of Buffalo, the State University of New York
7. California State University, Sacramento
8. University of California, Berkeley
9. University of California, Davis
10. University of California, Irvine
11. University of California, Los Angeles
12. University of Central Florida
13. Clemson University
14. Colgate University
15. Columbia University, Barnard College
16. University of Connecticut
17. Cornell University
18. Creighton University
19. Dartmouth College
20. University of Dayton
21. University of Delaware
22. Drake University
23. Drexel University
24. Duke University
25. Duquesne University
26. Eastern Michigan University
27. Fairfield University
28. Fordham University
29. George Mason University
30. George Washington University
31. Georgetown University
32. Gonzaga University
33. Harvard University
34. College of the Holy Cross
35. Indiana University, Bloomington
36. Iona College
37. University of Iowa
38. Jacksonville University
39. University of Kansas
40. Kansas State University
41. La Salle University
42. Lehigh University
43. University of Louisville
44. Loyola Marymount University
45. Loyola University (Maryland)
46. Marist College
47. Massachusetts Institute of Technology

48. University of Massachusetts, Amherst
49. University of Miami (Florida)
50. University of Michigan
51. Michigan State University
52. University of Minnesota, Twin Cities
53. University of North Carolina, Chapel Hill
54. Northeastern University
55. University of Notre Dame
56. The Ohio State University
57. Old Dominion University
58. Oregon State University
59. University of Pennsylvania
60. Princeton University
61. University of Rhode Island
62. Robert Morris University
63. Rutgers, State University of New Jersey, New Brunswick
64. Sacred Heart University
65. University of San Diego
66. San Diego State University
67. Santa Clara University
68. University of Southern California
69. Southern Methodist University
70. Saint Joseph's University
71. St. Mary's College of California
72. Stanford University
73. Stetson University
74. Syracuse University
75. Temple University
76. University of Tennessee, Knoxville
77. University of Texas at Austin
78. University of Tulsa
79. U.S. Naval Academy
80. Villanova University
81. University of Virginia
82. University of Washington
83. Washington State University
84. West Virginia University
85. University of Wisconsin, Madison
86. Yale University

How many years have you coached rowing? Please include all years, not just the time at your current institution.

- Less than one
- 2-4

- 5-7
- 8-10
- 11-13
- 14-16
- 17+

How many women are currently on your team? Please include total number of varsity, junior varsity, and freshmen/novice rowers and coxswains on the team as of today.

- 1-10
- 11-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 80+

APPENDIX H
LEADERSHIP SCALE FOR SPORT - PREFERRED BEHAVIOR VERSION
(ATHLETE- REPORTED)

	1	2	3	4	5	
I prefer my coach to:						
18. Encourage athletes to make suggestions for ways to conduct practices.	—	—	—	—	—	18
19. Do personal favours for the athletes.	—	—	—	—	—	19
20. Explain to every athlete what should be done and what should not be done.	—	—	—	—	—	20
21. Let the athletes set their own goals.	—	—	—	—	—	21
22. Express any affection felt for the athletes.	—	—	—	—	—	22
23. Expect every athlete to carry out one's assignment to the last detail.	—	—	—	—	—	23
24. Let the athletes try their own way even if they make mistakes.	—	—	—	—	—	24
25. Encourage the athlete to confide in the coach.	—	—	—	—	—	25
26. Point out each athlete's strengths and weaknesses.	—	—	—	—	—	26
27. Refuse to compromise on a point.	—	—	—	—	—	27
28. Express appreciation when an athlete performs well.	—	—	—	—	—	28
29. Give specific instructions to each athlete on what should be done in every situation.	—	—	—	—	—	29
30. Ask for the opinion of the athletes on important coaching matters.	—	—	—	—	—	30
31. Encourage close and informal relations with athletes.	—	—	—	—	—	31
32. See to it that the athletes' efforts are coordinated.	—	—	—	—	—	32
33. Let the athletes work at their own speed.	—	—	—	—	—	33
34. Keep aloof from the athletes.	—	—	—	—	—	34
35. Explain how each athlete's contribution fits into the total picture.	—	—	—	—	—	35
36. Invite the athletes home.	—	—	—	—	—	36
37. Give credit when it is due.	—	—	—	—	—	37
38. Specify in detail what is expected of athletes.	—	—	—	—	—	38
39. Let the athletes decide on plays to be used in a game.	—	—	—	—	—	39
40. Speak in a manner which discourages questions.	—	—	—	—	—	40

APPENDIX I
LEADERSHIP SCALE FOR SPORT - ACTUAL BEHAVIOR VERSION
(ATHLETE- REPORTED)

	1	2	3	4	5	
My coach:						
18. Encourages athletes to make suggestions for ways to conduct practices.	—	—	—	—	—	18
19. Does personal favours for the athletes.	—	—	—	—	—	19
20. Explains to every athlete what should be done and what should not be done.	—	—	—	—	—	20
21. Lets the athletes set their own goals.	—	—	—	—	—	21
22. Expresses any affection felt for the athletes.	—	—	—	—	—	22
23. Expects every athlete to carry out one's assignment to the last detail.	—	—	—	—	—	23
24. Lets the athletes try their own way even if they make mistakes.	—	—	—	—	—	24
25. Encourages the athlete to confide in the coach.	—	—	—	—	—	25
26. Points out each athlete's strengths and weaknesses.	—	—	—	—	—	26
27. Refuses to compromise on a point.	—	—	—	—	—	27
28. Expresses appreciation when an athlete performs well.	—	—	—	—	—	28
29. Gives specific instructions to each athlete on what should be done in every situation.	—	—	—	—	—	29
30. Asks for the opinion of the athletes on important coaching matters.	—	—	—	—	—	30
31. Encourages close and informal relations with athletes.	—	—	—	—	—	31
32. Sees to it that the athletes' efforts are coordinated.	—	—	—	—	—	32
33. Lets the athletes work at their own speed.	—	—	—	—	—	33
34. Keeps aloof from the athletes.	—	—	—	—	—	34
35. Explains how each athlete's contribution fits into the total picture.	—	—	—	—	—	35
36. Invites the athletes home.	—	—	—	—	—	36
37. Gives credit when it is due.	—	—	—	—	—	37
38. Specifies in detail what is expected of athletes.	—	—	—	—	—	38
39. Lets the athletes decide on plays to be used in a game.	—	—	—	—	—	39
40. Speaks in a manner which discourages questions.	—	—	—	—	—	40

APPENDIX J
LEADERSHIP SCALE FOR SPORT - COACH'S BEHAVIOR VERSION
(SELF- REPORTED)

	1	2	3	4	5	
In coaching I:						
18. Encourage athletes to make suggestions for ways to conduct practices.	___	___	___	___	___	18
19. Do personal favours for the athletes.	___	___	___	___	___	19
20. Explain to every athlete what should be done and what should not be done.	___	___	___	___	___	20
21. Let the athletes set their own goals.	___	___	___	___	___	21
22. Express any affection felt for the athletes.	___	___	___	___	___	22
23. Expect every athlete to carry out one's assignment to the last detail.	___	___	___	___	___	23
24. Let the athletes try their own way even if they make mistakes.	___	___	___	___	___	24
25. Encourage the athlete to confide in the coach.	___	___	___	___	___	25
26. Point out each athlete's strengths and weaknesses.	___	___	___	___	___	26
27. Refuse to compromise on a point.	___	___	___	___	___	27
28. Express appreciation when an athlete performs well.	___	___	___	___	___	28
29. Give specific instructions to each athlete on what should be done in every situation.	___	___	___	___	___	29
30. Ask for the opinion of the athletes on important coaching matters.	___	___	___	___	___	30
31. Encourage close and informal relations with athletes.	___	___	___	___	___	31
32. See to it that the athletes' efforts are coordinated.	___	___	___	___	___	32
33. Let the athletes work at their own speed.	___	___	___	___	___	33
34. Keep aloof from the athletes.	___	___	___	___	___	34
35. Explain how each athlete's contribution fits into the total picture.	___	___	___	___	___	35
36. Invite the athletes home.	___	___	___	___	___	36
37. Give credit when it is due.	___	___	___	___	___	37
38. Specify in detail what is expected of athletes.	___	___	___	___	___	38
39. Let the athletes decide on plays to be used in a game.	___	___	___	___	___	39
40. Speak in a manner which discourages questions.	___	___	___	___	___	40

APPENDIX K
LSS SCORING GUIDE



The items under each dimension of leader behavior are as follows:

Training and Democratic Instruction	Behavior	Autocratic Behavior	Social Support	Positive Feedback (Rewarding Behavior)
1	2	6	3	4
5	9	12	7	10
8	15	27	13	16
11	18	34	19	28
14	21	40	22	37
17	24		25	
20	30		31	
23	33		36	
26	39			
29				
32				
35				
38				

The scoring of each of the items is as follows:

Always	= 5
Often	= 4
Occasionally	= 3
Seldom	= 2
Never	= 1

The sum of the scores on the items in a dimension is divided by the number of items in that dimension to derive the dimension score for a subject. It is advisable to carry these scores to at least four decimals in statistical analyses.

APPENDIX L
DESCRIPTIVE STATISTICS FOR THE LSS DIMENSIONS

Descriptive Statistics for the LSS Dimensions

Source	DIMENSIONS				
	TI	DB	AB	SS	PF
Chelladurai (1984)	4.15 ^a (0.46)	2.90 (0.55)	2.41 (0.51)	3.29 (0.49)	4.08
(0.62)	4.06 ^b (0.49)	3.30 (0.46)	2.15 (0.44)	3.34 (0.51)	4.09
(0.60)	3.87 ^c (0.49)	3.36 (0.43)	2.13 (0.46)	3.19 (0.47)	3.89
(0.66)	3.55 ^d (0.83)	2.58 (0.75)	2.89 (0.85)	2.93 (0.80)	3.52
(0.92)	3.83 ^e (0.59)	3.17 (0.54)	2.61 (0.72)	3.00 (0.62)	3.85
(0.67)	3.51 ^f (0.67)	3.07 (0.63)	2.34 (0.74)	3.04 (0.64)	3.94
(0.84)	4.00 ^g (0.63)	3.38 (0.43)	2.33 (0.57)	3.09 (0.66)	3.99
Chelladurai & Carron (1981)	4.07 ^h (0.49)	3.84 (0.45)	2.31 (0.65)	3.06 (0.58)	4.14
(0.61)	3.75 ⁱ (0.63)	3.39 (0.74)	2.56 (0.80)	3.41 (0.70)	3.82
Chelladurai et al. (1988)	3.26 ^j (0.78)	2.79 (0.81)	2.93 (0.80)	2.96 (0.86)	3.50
(0.73)	4.20 ^k (0.55)	3.53 (0.67)	2.41 (0.91)	3.52 (0.60)	3.97
Chelladurai (1986)	3.85 ^l (0.77)	3.42 (0.79)	2.83 (0.87)	3.32 (0.76)	3.73
(0.68)	3.9 ^m (0.50)	3.2 (0.60)	2.3 (0.40)	3.6 (0.50)	4.5
Dwyer & Fischer (1988)	4.25 ⁿ (0.51)	3.62 (0.49)	2.21 (0.68)	3.34 (0.66)	4.32
Schliesman (1987)	3.83 ^o (0.50)	3.09 (0.58)	2.82 (0.49)	2.82 (0.62)	3.86
(0.60)	4.15 ^p (0.66)	3.45 (0.94)	2.05 (0.68)	3.66 (0.54)	4.18
Garland & Barry (1988)	3.58 ^q (0.57)	2.88 (0.62)	2.67 (0.63)	2.85 (0.74)	3.55
(0.58)					
Horne and Carron (1985)					
(0.75)					

- ^a Canadian Varsity Basketball Players - Preferences
^b Canadian Varsity Wrestlers - Preferences
^c Canadian Varsity T & F Athletes - Preferences
^d Canadian Varsity Basketball Players - Perceptions
^e Canadian Varsity Wrestlers - Perceptions
^f Canadian Varsity T & F Athletes - Perceptions
^g Canadian High School Basketball Players - Preferences
^h Canadian High School Wrestlers - Preferences
ⁱ Japanese Varsity Athletes - Preferences
^j Japanese Varsity Athletes - Perceptions
^k Indian Varsity and Provincial Athletes - Preferences
^l Indian Varsity and Provincial Athletes - Perceptions
^m Canadian Wrestling Coaches - Self Perceptions
ⁿ U.S. Varsity T & F Athletes - Preferences
^o U.S. Varsity T & F Athletes - Perceptions
^p U.S. Varsity Football Players - Perceptions
^q Canadian Varsity Female Athletes - Perceptions