An analysis of contributory effects of teamwork characteristics within collegiate basketball and football

Robert Michael Gibbons

University of Nevada, Las Vegas

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AN ANALYSIS OF CONTRIBUTORY EFFECTS OF TEAMWORK
CHARACTERISTICS WITHIN COLLEGIATE
BASKETBALL AND FOOTBALL

by

Robert M. Gibbons

Bachelor of Science
University of Pittsburgh, Johnstown
1993

A thesis submitted in partial fulfillment
of the requirements for the degree of

Master of Science

in

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Robert M. Gibbons

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Examination Committee Chair

Dean of the Graduate College

Examination Committee Member

Examination Committee Member

Graduate College Faculty Representative

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ABSTRACT

An Analysis of Contributory Effects of Teamwork Characteristics Within Collegiate Basketball and Football

by

Robert M. Gibbons

Dr. James A. Busser, Examination Committee Chair
Professor of Sport and Leisure Studies
University of Nevada, Las Vegas

Few empirical studies have investigated the overall contribution of teamwork characteristics to collegiate sport team success. Additionally, there is little evidence determining the collective effects of teamwork characteristics among NCAA divisions of competition. The purpose of this research was to explore the relationships between six teamwork characteristics and successful teamwork within collegiate basketball and football. Subjects, comprised of 124 NCAA head football coaches and 95 head basketball coaches, returned self-reported questionnaires for the study. MANOVA, t-tests and Tukey’s Honestly Significant Difference tests were conducted on the subscales and determined that teamwork scores differ between the two sports. The results suggested that goal clarity and expert leadership were the primary contributors to overall teamwork scores within both sports and all levels of competition (p < .05). Individual sport- and division-specific analyses also determined that the teamwork characteristics emerge in different quantities between the sports and among the divisions studied.
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CHAPTER I

INTRODUCTION

Introduction of the Problem

Revenue generation within collegiate sports, particularly basketball and football, has increased exponentially over the past few decades. The primary generator of these revenues comes from basketball and football television broadcast rights. The first television contract in 1952 with NBC paid the National Collegiate Athletic Association (NCAA) $1.1 million for the rights to the collegiate football schedule (Falla, 1981). By 1970, television rights garnered over $12 million annually for the NCAA, a figure which rose to over $65 million by the mid-1980's (Falla, 1981). By 1994, CBS had bid as much as $300 million for the right to televise a proposed national championship football game (Dunnavant, 1994).

Collegiate basketball has also enjoyed tremendous revenue generation from the sale of television rights. In 1969, the NCAA received over $500,000 from selling the broadcast rights of the tournament national championship game to NBC (Falla, 1981). In 1978, NBC purchased the rights to televise the tournament regional final games because the demand for tournament viewing had increased dramatically. Today, the NCAA is in the midst of a television agreement with CBS that will expire in 2002 and net over $1.7 billion, which translates into higher monetary disbursements to NCAA-member institutions (Wolff, 1994). Clearly, money has a direct relationship with the growing national demand for basketball and football.

While these two collegiate sports provide the backbone of NCAA revenues, they are separated into divisions of competition. The primary divisions for revenue generation...
are Division I in basketball and Division I-A in football. NCAA divisions are
distinguishable by the caliber of competition scheduled, the amount of financing
allocated by their respective institutions and the number of scholarships that are offered
to team members (Falla, 1981). The NCAA determined that in order to be classified
within a particular basketball or football division, certain team sponsorships, scheduling
standards and specific home-game attendance and seating capacities must be met (Falla,
1981). Clearly, the collegiate sport domain is complex, yet extremely lucrative.

The collegiate sport world has undergone tremendous growth over the last several
decades. Because of the rapid growth of media coverage and financial revenues within
collegiate sports, the national and international attention surrounding sport programs has
likewise dramatically increased. Consequently, this has subjected sport programs at all
levels to closer scrutiny by administrators, sport coaches and fans. This, in turn, increases
expectations for coaches to produce successful results, most frequently measured by a
team’s respective win-loss record. This ever-increasing emphasis on winning, in
conjunction with the national exposure and financial rewards showered on today’s
collegiate basketball and football programs, places intense pressure on coaches to win.

The college basketball season of 1992-93 ended with the North Carolina Tar
Heels Men’s Basketball Team cutting down the nets in victory after the NCAA
championship game that March. North Carolina appeared to be building a dynasty when
the University soon thereafter signed Rasheed Wallace and Jerry Stackhouse, both current
National Basketball Association (NBA) stars, as part of an incredibly talented incoming
freshman class to join the team the following season. That season was being anticipated
as another championship campaign for North Carolina, which was being hailed as
“perhaps the best team of all time” (Wolff, 1995, p. 73). However, the 1993-94 edition of
the Tar Heels proved to be a bust, fizzling out with a loss in the second round of the
NCAA Basketball Tournament. How could a team with proven success experience such
a dramatic downward spiral after adding extremely talented players the next year? One answer may lie within the concept of teamwork.

The concept of teamwork may have been the underlying flaw in Head Coach Dean Smith's master plan for the North Carolina basketball program. During the Tar Heels championship run within the 1992-93 season, eight players on the squad saw at least 500 minutes of game-time action, a clear indication that several players were valuable to the team's success (Wolff, 1995, p. 73). However, that next season served as a battleground for conflicting interests and personalities among the mixture of old and new players. The team became divided, with two factions emerging: the veterans, who had earned playing time, and the freshman, who felt deserving of star treatment because of their status coming into the University. With the team fractured and individualism overriding the team wholeness, the North Carolina Basketball Team watched the majority of the 1994 NCAA championships on television. The elements of teamwork that had produced a championship season in 1992-93 clearly did not exist at North Carolina the following season.

The ensuing question revolves around the universal generalizability of winning; can specific traits that effectively lead to success be collectively identified among winning teams? It is unclear within the current literature whether characteristics of one winning team can be transferred to another program to produce similar successful results. Nonetheless, coaches must be able to look at a complete spectrum of organizational elements as they relate to effective teamwork. While coaching expertise clearly has a strong role in team performance, how much of the team's success or failure can be attributed to other factors such as personnel skill level, game and practice environment and team cohesion? Numerous components comprising teamwork exist within today's management literature, yet the extent of each piece's contribution to the overall teamwork puzzle is unclear. Effective coaches must identify specific contributory characteristics of successful teams within their particular environments. They must also construct and
maintain those elements within their own teams in order to meet the intense pressures to produce winning programs.

Formulation of Hypotheses

The purpose of this study was to examine the presence of teamwork characteristics within successful collegiate basketball and football teams. Because these two sports serve as the financial backbone and media focus within collegiate athletics, they were chosen as the testing domains for teamwork analysis. Additionally, because differences exist among the divisions of competition, analyses were designed to test whether teamwork also differs within these particular sports. In order to explore if the presence of the teamwork elements differs by sport and division, the study hypothesized that:

1. There will be no significant differences in the overall teamwork scores among basketball divisions;
2. There will be no significant differences in the overall teamwork scores among football divisions;
3. There will be no significant difference in the overall teamwork scores between basketball and football;
4. There will be no significant difference in each characteristic's contribution to teamwork among basketball divisions;
5. There will be no significant difference in each characteristic's contribution to teamwork among football divisions;
6. There will be no significant difference in each characteristic's contribution to teamwork between basketball and football.
CHAPTER II

REVIEW OF RELATED LITERATURE

What is Teamwork?

The existing literature identifies several elements that are believed to variously contribute to teamwork. Teamwork, as yet, cannot be concretely defined based on empirical study results found within management and sport literature. It is currently unclear what exactly contributes to teamwork and in what quantities. However, the management literature conceptualizes six major elements that contribute to effective teamwork:

- Goal clarity;
- Qualified personnel;
- Collaborative climate;
- Results-oriented structure;
- Singular commitment;
- Expert leadership.

Goal clarity refers to the concept of a goal on which the entire team is clearly focused because the goal is easily and completely understood by all members. Qualified personnel who possess the necessary skills to perform competently in a needed area are vital cogs of the team. The environment in which the team functions must foster trust and unity among team members. A results-oriented structure is crucial because it defines the standards that pressure team members to perform at an expected level. The entire team must be unified in its commitment to success; no members must be placed individually above the team. Finally, a strong, expert leader is necessary to right the ship during
stormy times and to help promote the unified focus of the team. All of these elements are interdependent and collectively vital to the desired success of the team.

**Goal Clarity**

The research conducted by Larson and LaFasto (1989) revealed that in the 30 teams they studied, there existed a clear understanding of the team’s goal by all members. The underlying assumption is that all members of a team completely understand the goals set for the team. This can only be achieved when the goal is concise and remains unchanging. Robbins and Finley (1995) added that goal clarity is the first and foremost objective for a team and that the team’s reason for existing must be clearly defined through its purposes and expected outcomes. If a goal is vague or confusing to some team members, the team may become individualized because certain members are working toward achievements that are not in line with the organizational objectives. Zenger, Musselwhite, Hurson and Perrin (1994) suggest that the first step toward team success is “to gain a shared understanding of the team’s purpose” (p.94). Without a unified understanding of a clear goal, the team can never truly join forces in accomplishing the task set forth.

Pratt and Eitzen (1989) suggest that management should not assume team members automatically share the same goals and that organizational goals should be clearly stated to all. Larson and LaFasto (1989) also indicate through their research that the lack of a clear goal was the most frequently cited reason for team failure. Robbins and Finley (1995) determined that teams fail when their reason for existing remains unclear. Misplaced goals and confusing objectives, they added, contribute to one of three results for team members:

- They don’t believe in the stated outcome;
- They don’t believe the outcome is reachable;
They can’t clearly determine what the outcome is supposed to be.

Goal clarity is vital because it provides the team with the necessary focus on a collectively defined outcome.

The case of the University of North Carolina basketball team suggests the problems that may develop when goals are not clearly defined for the entire team of players and coaches. While the coaching staff and the University had only the goal of winning another national championship, some of the players may have focused on individual goals such as playing time and achieving national notoriety. This lack of goal clarity for all team members may have helped lead to that team’s downfall. Segall’s (1985) research supports this idea, suggesting that

“If the goal is not accepted by a significant portion of the group, we should expect to find relatively poor coordination of efforts and a relatively high incidence of self-oriented rather than group-task behavior” (p.45).

This may have contributed to North Carolina’s downfall. Team goals were not accepted by all team members and ensuing self-orientations eroded the teamwork concept. One element of Segall’s (1985) study focused on the commonality of goals among members of high school men’s basketball teams. Her research suggests that team members’ performances will only be influenced when a group goal has been accepted by the entire team. Rebish’s (1986) studies of women’s high school volleyball programs determined that members of successful teams did not participate as much for personal rewards as did members of average and below average teams.

Robbins and Finley (1995) offer that coaches and administrators should follow the MAPS system when stating team goals. The MAPS theory suggests that team goals should satisfy four criteria:

1. Measurable;
2. Attainable;
3. Performance related;
4. Specific.

First, a team goal is measurable when it is easily determined whether or not the goal has been accomplished. The goal needs to specifically identify against what standard performance is to be measured and by when it is to be accomplished (Robbins & Finley, 1995). Within this context, goals must be stated in such a way that they are free of ambiguity to promote a clear understanding by all team members. Measurable goals are easily monitored for progress toward accomplishment.

Second, the MAPS theory emphasizes that goals should be challenging, yet attainable. Goals should require team members to “deliver their skills, resulting in the satisfaction of achievement” (Robbins & Finley, 1995, p.78). In this sense, then, goals should motivate team members, not confuse or hinder their performance. Challenging goals that are attainable require complete knowledge of personnel abilities and also determine the specific systems put into place in which team members perform. Coaches can therefore establish team goals based on expert evaluations of all team members and abilities.

Next, according to Robbins and Finley (1995), goals must be performance related in that team goals remain consistent with the designated purpose of the team’s existence. Within the collegiate athletic context, performance-related goals must be directly linked to team winning. Team goals such as drawing the highest attendance in the league, for example, would not fit within the performance-related criteria. However, a goal to win the league title during the upcoming season meets the specified requirements as it is directly linked to actual team performance.

Finally, Robbins and Finley (1995) suggest that goals be stated in very specific language. The authors support this criteria by asserting that “the more specific a goal is, the more likely it will motivate people to work toward it” (p.79). It follows that the more motivated the team members are with respect toward goal achievement, the more focused
their performance should be. The established goal should be specific in its identification of its expected outcomes, standards against which it is to be measured and its direct link to team member performance. The MAPS theory provides coaches and administrators with clear models for establishing valuable team goals. Goal clarity must be the first element established within the teamwork environment.

Qualified Personnel

One of the more obvious elements of a successful team is the competency of its members. Athletic team players must possess the skills necessary to perform the tasks given them at expected levels within the context of competition. Adair's (1986) research of work groups asked, “What is this person going to bring to the team?” (p. 128). In the case of athletics, team expectations are generally high, and players must have the talent to perform as expected. It follows, then, that competent team members must possess the skills needed to improve the team’s overall performance. According to a Carmichael and Thomas (1995) study of measured performance among professional rugby football teams, the most significant determinant of team success as measured by winning percentage was the professional status of the players. In this example, the expert talent and inherent ability of the individual players proved to be crucial to the teams’ winning percentage. Robbins and Finley (1995) take this concept a step further, adding that not only must the talent be there in the first place, it must be utilized and continually developed and improved.

The importance of qualified personnel can be clearly discerned in the world of athletics. Larson and LaFasto (1989) concluded in their teamwork research that it is “imperative to select the right people” (p. 59). Their example of the 1966 Notre Dame National Championship Football Team clearly demonstrates the importance of highly skilled personnel, as 19 of the 21 players who completed that season were drafted into the National Football League (NFL). The presence of competent personnel, may have
contributed to the success of that team because each person was counted on and capable of performing specific tasks pertinent to the team’s success. Each member’s role was expertly executed within the team framework and winning followed accordingly.

The concept of team member skill and ability encompasses three facets of competency. Katzenbach and Smith (1993) define the first type of skill as technical expertise. This relates to the team member possessing the necessary ability to perform the functions required to achieve the team goal. Larson and LaFasto (1989) refer to this technical expertise as essential in that tasks cannot be completed by personnel who do not have the skills or knowledge necessary for performance. A professional baseball team will not put anyone in to pitch in a major league game that does not possess the necessary skills to successfully get hitters out. Is it any coincidence then that the Atlanta Braves, a team whose pitchers have won the Cy Young Award as the league’s best pitcher after six of the last seven seasons, have participated in three World Series over that same time period? Robbins and Finley (1995) suggest that this role specialization provides for the mastery of a specific task because players are expected to perform the task over and over again. Technical competencies are crucial to team performance at all levels of competition.

The second type of competency refers to the team member’s communication and collaboration skills. Larson and LaFasto (1989) indicate that it is vital that team members are selected who can work well with other team members. Their research indicated that teams should not accept members who cannot collaboratively work together. Adair’s (1986) study reached similar conclusions: “Like the proverbial rotten apple, such individuals will have a negative effect on the group” (p. 130). Katzenbach and Smith (1993) suggest that “common understanding and purpose cannot arise without effective communication” (p. 48). Team members must, therefore, be in constant communication with each other to maintain the proper focus on team goals. Kinlaw (1991) adds that communicating people are “focused on getting the job done” (p. 88). Over time, this
communication between team members becomes easier to achieve. Robbins and Finley (1995) suggest that when players have worked together over a period of time, they begin to make assumptions about other members’ abilities and consequent actions. This communication, both verbal and non-verbal, is essential to teamwork, and experienced team members are able to achieve it more fluently.

Adair (1986) adds that desirable personal attributes are combined with technical and collaborative competencies to describe ideal team members. His work group research points to the team member as having balance with respect to technical proficiencies, communicative skills and personal attributes. Clearly, those team members who lack the motivation necessary to perform at expected levels can bring a negative attitude to the group. Additionally, those members who do not work well with their teammates and tend to project egocentrism and selfishness will only serve to disrupt the harmony so inherent in effective teamwork. Robbins and Finley (1995) add that team members must possess the dedication to continually improve their skills with respect to team performance. Such a desirable attribute only enhances the player’s technical skills and allows for improved performance over time. Adair suggests that although technical expertise and the ability to work well with others is paramount within the team, desirable personal attributes should not be discounted when analyzing team personnel. Robbins and Finley conclude that the full range of player competencies must be available to the team.

**Collaborative Climate**

The climate in which the team exists and performs remains a crucial piece of the sport teamwork puzzle. In order to function at the highest possible levels of team competition, team members must be able to work harmoniously to achieve team success. Gruber and Gray (1981) found through studies of variously aged basketball players that a positive correlation between cooperation among team members and team cohesion levels.
It is this collaborative climate that fosters team chemistry and allows the complementary skills of all players to work together to produce a successful, collective effort. Adair (1986) defines cohesion as the “magnetic attraction of members to the invisible center of the group” (p. 20). Cohesion is the glue that keeps the team’s togetherness intact. It forms a group of individuals into a collective team whose production is greater than the sum of the individual efforts, also known as synergy. Teams must exist, practice and compete in a collaborative climate in order to develop and maintain the cohesive nature of the group.

Consequently, even if an accepted goal and qualified personnel exist, the team could be rendered ineffective if members do not get along with each other (Robbins & Finley, 1995). Therefore, the collaborative climate must be established to maintain good relationships among team members. Robbins and Finley offer the following list of elements that define good working relationships:

- Trust;
- Mutual respect;
- Open communication between players;
- Constructive conflict resolution;
- Acceptance of individual roles;
- Seeking decision making input and involvement;
- Reliability and dependability.

These elements depict the types of characteristics that need to be fostered within the collaborative climate by the coach or administrator. Clark (1996) determined through research of deaf athletes at Gallaudet University that no differences exist in terms of cohesion among teams that are deaf as opposed to non-deaf and culturally mixed compared to culturally single teams. Additionally, Draper’s (1987) studies of sport at the University of Tennessee found that task cohesion factors are relatively consistent at
varying levels of competition. Cohesion is a force that enjoins unique individuals with diverse experiences and allows for complete team potentials to be reached.

The success of a team can also be influenced by the level of cohesion within the team. Rebish (1986) found that the value of team membership and closeness to teammates were the two variables of team cohesion that can differentiate successful teams from teams that do not perform as well. Starr (1991) found similar results among high school basketball programs. This supports an earlier theory of team cohesion that suggested that cohesion is based on personal attraction to a group and that the individual enjoys the closeness of the group (Carron & Chelladurai, 1981). Therefore, the levels of team membership value and group closeness can have an impact on team success. The collaborative climate must enhance both of these cohesion characteristics to strengthen teamwork and success. Coaches need to develop and maintain a climate for team existence that promotes the togetherness of the team members and adds discernible value to team membership.

The importance of collaboration as a personnel competency is equally important in creating and maintaining a teamwork-oriented climate. The essence of the collaborative climate is a solid, communicative trust among team members. Glover (1992) suggests that in a climate of trust, "teammates learn to encourage each other and understand that their success is dependent upon team communication" (p. 3). Segall's (1985) study of high school basketball teams suggested that cohesion was positively correlated with communication levels among teammates.

The concept of trust is absolutely critical to successful teamwork; only when each member of the team feels confident in the other members' abilities and dedication can true success be achieved. The climate that gradually expands its trust base allows members to continue to grow individually, which leads to greater contributions to the team (Zenger, Musselwhite, Hurson & Perrin, 1994). Nelson (1992) defines trust within athletic teams as not only among players, but also as coaches trusting players' decision-
making abilities. Mackay (1993) adds that it is necessary for team members, including both players and coaches, to shed their "protectionist" (p. 90) attitudes and allow the theme of trust to permeate all future thought and decision making.

The concept of trust can be thought of as the glue that reinforces and strengthens team cohesion. Larson and LaFasto (1989) explored the necessity of a trust-enveloped climate. Their research indicated that trust allows the team to stay problem-focused, promotes more efficient communication and improves the quality of collaborative outcomes. Trust, then, may effectively enhance team cohesion. McClure and Foster (1991) explain that the importance of cohesion is underscored in the degree to which members contribute to the group and the level of team loyalty felt by members. Trust can only develop within the team when elements such as personal agendas and individual goals are either eliminated from the team or are congruent with team goals. Cohesion is the binding nature of the team that cannot effectively exist without a certain level of trust.

The value of cohesion in sport cannot be overstated. Success simply cannot exist over long periods of time without cohesion. Gasperec (1986) studied women's collegiate softball teams and determined that teams with high cohesiveness are more successful. Yukelson's (1984) study of intercollegiate track, wrestling and tennis teams suggested that successful interacting sport teams display higher levels of cohesion than less successful teams. According to White (1984), "the experience of successful flow involves reciprocity, compatibility and mutual trust" (p. 93). Finally, White suggests that these types of cohesive characteristics must be developed and fostered within the collaborative climate if a team is to be successful.

**Results-Oriented Structure**

A fundamental strength of any team must be its focus on clearly defined results. Larson and LaFasto (1989) indicate that teams which attempt to accomplish a tactical objective must structurally begin with clear definitions of the overall task and each
supporting role. Sport teams can be considered tactical teams because of their continuous execution of game plans while marching toward the ultimate objective of winning. However, after a series of goals has been established and understood, the key to the results-oriented structure is the concept of a complementary role for each team member.

In this light, Larson’s and Lafasto’s research can be translated into an athletic context. The goal, or overall team task, is to capture a championship or the highest level of accomplishment possible. Additionally, the complementary, supporting roles are defined for each individual position on the team: the football offensive tackle, the basketball point guard and the baseball relief pitcher. Wolff (1995) suggests that team structure breaks down if members adopt a “me-firstism” (p. 73) attitude with regard to their supporting roles. Tactical teams, of which athletic teams are an example, must structurally define a clear overall objective in addition to individual supporting roles. That structure must also emphasize complete success within each member’s role in support of the overall objective.

This concept of clear supporting role definition and accountability is an important element characterizing a successful team structure. Larson and LaFasto (1989) state that “any team effort boils down to the assumption of individual responsibilities and accountabilities” (p. 55) and that “everyone is accountable all the time on successful teams” (p. 56). Katzenbach and Smith (1993) add that a team exists when it holds itself accountable as a team. Role accountability ensures that each team member is understanding of, accepting of and measured performance-wise against some established set of standards.

Goal clarity, collaborative climate and role responsibilities are examples of processes occurring as individuals function within the results-oriented structure. Robbins and Finley (1995) suggest that these processes are continually improved within the team’s structure over the course of time. Their research concluded that a team which recognizes and emphasizes all functions within the team’s structure can truly see the
skills of the team. Subsequently, focus on the various team functions allows coaches and administrators to design ways to maximize potential and to avoid any distractions that may detract from team performance. Adair (1986) refers to this concept as the maintenance need of the group. His research into effective teambuilding determined that this need to develop interlocking relationships among the various functions of the team is what ultimately leads to the accomplishment of team goals. The initial structure of the team is important for accomplishing team goals, yet continued maintenance of this structure to ensure it remains results-driven is equally vital.

**Singular Commitment**

The concept of a singularly defined, accepted and unified commitment is crucial to effective teamwork. Each team member must realize that his or her individual effort remains a piece of the collective team output toward achieving a common goal (Nelson, 1992). Larson and LaFasto (1989) state that the lack of a unified commitment toward a goal is often the most clearly missing element among ineffective teams. This commitment, then, relates not only to the understanding of the common goal initially clarified, but also to the collective effort put forth by members that fuel the team’s drive to successful completion of that goal. The willingness to continually perform to surpass established expectations of excellence describes the idea of commitment. If the commitment to succeed is not present, teams will fail in their attempts to accomplish whatever goals have been set.

Additionally, this commitment must be singular and unified among all team members. There must exist a common bond among the players that drives them to succeed. Wolff (1995) describes this unified commitment bonding as relating to the respect team members have for one another, which creates that team’s identity. His research cited the University of Oklahoma Men’s Basketball Coach, Kelvin Sampson, as forcing all of his players to “suffer together to share a common bond” (p. 69). This idea
of team identity through a singular commitment can be further discerned from Larson and LaFasto’s (1989) research. They suggest that the important property concerning team identity is not whether that identity is right or wrong, but rather if that identity unifies the team members. They further describe the idea of a unified commitment as “the relinquishing of the self to the team” (p. 77). Segall (1985) echoes this sentiment, suggesting that egocentric behavior of team members must give way to group goals. Fostering a singular commitment from each team member may help unify the team in its pursuit of a common goal.

Robbins and Finley (1995) describe the phenomenon of “turf wars” (p. 39) as violating this collaborative spirit of the unified team. This occurs when more than one person has similar responsibilities on the team and these players allow individual ambitions to supersede team goals. The case of the North Carolina Men’s Basketball Team provides clear examples of turf wars. The returning players from the previous season’s championship had already claimed their particular roles on the team through prior experiences and seniority. However, the incoming freshmen tried to lay claim to the same roles and responsibilities because of their exalted status coming into the university and their exploits at their previous levels of competition. The resulting turf war distracted and eventually divided the team from any established singular commitment to successful teamwork. Segall’s (1985) research also supports this perspective. She suggested that “it is only logical that a group must agree upon the direction of their effort for the group to move toward their goal” (p.46). Therefore, a singular task commitment is paramount if successful teamwork is to be achieved.

Studies of men’s basketball suggest that teams with high team task commitment on winning were more likely to win than teams that did not share a unified commitment (Segall, 1985). Robbins and Finley (1995) also suggest that members of a team must establish the desire to work toward a unified goal. Selfless attitudes, therefore, must rise above any other negative attitudes that can prove detrimental to the team. This singular
commitment to unified goals is a direct result of each team player accepting particular roles that are beneficial for team success (Segall, 1995). After the players develop and accept these complementary roles within the teamwork concept, the singular commitment toward winning will develop throughout the entire team. This singular commitment to winning through teamwork represents the complete unification of the team and provides the team spirit from which camaraderie and dedication develop and flourish.

**Expert Leadership**

A fundamentally important piece of the teamwork puzzle identified in the literature is the role of the team leader. Robbins and Finley (1995) emphasize the importance of true leadership by suggesting that “leaders must learn to serve the team and keep its vision alive or leave the leadership to someone else” (p. 14). The role of the leader can be described as focusing on both team performance and team development (Kinlaw, 1991). This underscores the need for the leader to not only measure his/her performance as a result of team output, but to also guide the team toward continued improvement in effectiveness and efficiency. The role of the coach as leader, then, is to maximize individual performances that lead to a collective boost in team performance. Katzenbach and Smith (1993) refer to the leader’s responsibility to motivate the team member’s “performance ethic” (p. 176), indicating the member’s desire to produce results. While leadership styles can vary, ranging on a scale from authoritarian to democratic, the responsibility of the leader remains unchanged. Larson and LaFasto (1989) indicate that the presence of a strong leader can add substantial value to the team’s performance.

A strong leader focuses on the intertwining relationship between the team goal, the ability to cause change within the team and the ability to best involve all members in the team function (Larson & LaFasto, 1989). Kim’s (1992) research revealed the intricacies of these leadership responsibilities. Her leadership-to-cohesion study
indicated that the best leaders for athletic teams were those coaches who balanced overall focus on a combination of team performance goals as well as group-involvement functions. Adaptation to changing environments is the key to maintaining harmony within the team. Robbins and Finley (1995) offer that "nothing is ever so good that it cannot be made better" (p. 83). These results reinforce the perspective that coaches' roles are not always clear-cut; rather, there exists an evolving mix of responsibilities that leads the team in pursuit of its goals.

Strong leadership begins with the belief that the team's goals are desirable and attainable. This represents the credibility the leader must have within the team (Robbins & Finley, 1995). The coach's first responsibility in athletics is to translate his/her vision into a concrete goal for the entire team. Coaches must also define this goal so that it creates excitement and energy for the players through motivation and team spirit. Neu's (1995) study of effective sport team selection determined that successful leaders are activists and catalysts for positive action with regard to player performance. This suggests that successful coaches will accentuate the positive and encourage others to perform as expected. Leader responsibilities are vast and diverse, yet none is more important than the initial translation of personal visions into team goals that are accepted by all.

A second, more traditional, role of the leader is to establish, promote and maintain the cohesion of the team members. The cohesion of team members is based on several elements. Apple (1994) found through an investigation of collegiate baseball teams that cohesion among those teams was directly influenced by the coach's leadership qualities and the specific climate in which the coach had the team train. Her research also suggests that it is imperative that the successful coach invest ample time into the cohesive process in order to maintain the togetherness of the players. Team cohesion can also fluctuate over the course of a season (Fox, 1986). Her research into women's collegiate softball programs supports the assertion that cohesion maintenance must constantly occur as long
as the team competes. Apple’s studies also found that cohesion levels fluctuate over time and that strong leaders realize that individual players bring with them “a lifetime of previous experiences” (p. 120) which can influence team cohesion. Therefore, the successful coach must understand the evolving needs of the players in order to maintain team cohesion.

Another of the major responsibilities of team leaders is teaching the team members to become leaders themselves. Robbins and Finley (1995) suggest that leaders are “involved, involving and empowering of others” (p. 94). This type of team empowerment has clear implications in the athletic world: catchers call pitches in baseball games, quarterbacks change football plays at the line of scrimmage and basketball point guards decide the play to be run at any particular time. Larson and LaFasto (1989) determined that the best leaders enable team members to take an active role in molding the team’s destiny. This requires that leaders delegate some level of responsibility to team members. Effective leaders realize that they alone do not have the right solutions at all times and empower skilled team members to make decisions regarding team operations (Mackay, 1993). Leadership is a complex role that requires unique individuals who can coordinate the broad spectrum of team members’ efforts and assign leadership roles to qualified personnel (Komaki, Desselles, & Bowman, 1989).

The responsibilities of the successful leader are numerous. The sport literature offers a diverse array of these responsibilities, which include the following:

- Initiating team activity;
- Assisting evolution and change among team members;
- Influencing the direction of the team’s tasks;
- Supporting team members;
- Evaluating performance to find areas to improve.

However, the three main areas of successful leadership tend to focus on the interlocking elements relating to team, task and individual (Adair, 1986). The athletic coach must first
focus on the task, finding the best way to instill his/her goal into the players as well as the motivation needed to achieve those goals. Second, the coach must successfully develop and maintain cohesion among the team members. This cohesion allows the players to work together to achieve the team goals. Finally, the players themselves must be molded into leaders of their peers. This forces the players to accept a portion of the responsibility for the team’s performance. These three areas of leadership intertwine to form the basic core of successful team leadership in sport. The role of the coach as leader is as complex as any facet of sport teamwork. Robbins and Finley (1995) suggest that the bottom line for successful leadership is to “understand and improve the things that can be changed, and stoically accept the things you cannot” (p. 85).

Purpose and Need for the Study

This study examined the presence of the teamwork characteristics in successful collegiate basketball and football teams across four NCAA divisions of competition. As previously discussed, today’s sport teams at all levels of play must strive to gain whatever competitive edge available. The nature of sport has turned the collegiate athletic domain from simple game enjoyment to competitive big business. In light of this perpetually growing revenue generation, creating and maintaining continuously successful programs has become the lifeblood of sport teams at the professional and collegiate levels. The need, then, for creating a blueprint identifying the fundamental characteristics for developing effective teamwork within athletic teams has become more important. This study first identified the essential teamwork characteristics and, second, attempted to determine which characteristics have the greatest presence between collegiate men’s basketball and football programs and among divisions of competition.

There exists a clear gap between the theories and practices concerning teamwork in sport. While much of the current teamwork literature focuses on singular analyses of individual teamwork characteristics, very few studies examine the entire teamwork
concept in sport. Clearly, information in this area needs to be both broadened and studied with greater detail. The present knowledge of teamwork concepts needs to be validated within the world of sport at all levels.

Limitations of the Study

A major limitation of the study could lie, for several reasons, with the perceptions of the coaches who were chosen as subjects and included in the study. First, while only head coaches of each team were asked to complete the survey, it cannot be proven that this actually occurred for each questionnaire. Because some assistant coaches may not have the experience and/or knowledge that is expected of head coaches, an assistant coach’s perceptions may not accurately reflect the true nature of the team, thus possibly creating different study results than may actually exist. Second, because only one coach was asked to respond to the survey, one individual’s perceptions of the team and its characteristics may be different than those of another coach associated with the team. Results that are based on an individual’s perceptions and conceptualization of teamwork characteristics may produce biased conclusions.

Additionally, while dozens of team sports exist at the collegiate level, only men’s basketball and football were chosen as study subjects. The presence and effects of the teamwork elements may vary within different types of teams participating at the collegiate level. This needs to be examined through future studies of teamwork. Finally, this study only analyzes the teamwork characteristics involving men’s athletic programs. Because no women’s collegiate athletic teams were included in the study, there may exist a gender bias that may negatively impact the study results. This, too, must be examined through future studies to continue to expand upon the current body of teamwork knowledge.
Summary

The literature on teamwork and the components that contribute to teams' success is vast and diverse, revealing the complexities inherent in teamwork concepts. While numerous studies have been conducted concerning individual fundamentals of teamwork, six primary elements have been identified that collectively contribute to effective teamwork. Successful teams studied at all levels possess these common characteristics. First is the development and promotion of a clear, elevating goal that is understood by all team members. This represents the ultimate objective of the team and the standard against which the team’s performance will be evaluated. Second, the team must be comprised of qualified personnel who possess the necessary competencies required to complete the team’s tasks. Both technical and personal communication competencies as well as desirable personal traits are important elements of the teamwork ideology.

Additionally, teams must be allowed to operate within a collaborative climate in which a high level of trust among team members is developed and fostered. This environment promotes effective communication between team members and provides for efficient team cohesion. Subsequently, the team structure must be results-oriented, focusing on individual understanding of challenges that demand specific role acceptance and accountability if the team is to be successful. Also important is the need for a singular commitment toward team success as measured through goal accomplishment. Unification of individual efforts into a singular and focused commitment is a fundamental key to effective teamwork. Finally, a strong, dedicated leader, or coach within sport, is the culminating piece of the teamwork puzzle. The leader’s role is as complex as any role within the teamwork structure, but must include motivating team members for optimum performance.

The conceptualization of teamwork is multi-faceted, yet also attainable. This study is important to sport management because it will help expand the current body of knowledge within the collegiate sport domain. Although empirical evidence supporting
effective teamwork construction within the sport domain is currently limited, literature does describe the components necessary to develop that teamwork. Coaches must understand the specific characteristics identified herein as well as their far-reaching and interdependent nature when building and enhancing effective teamwork. It is suggested then, through this study, that effective teamwork can be developed and implemented into collegiate sport teams to produce and maintain successful results.
CHAPTER III

METHODOLOGY

The purpose of this study was to examine the presence of the teamwork characteristic within successful collegiate basketball and football teams. The selection and description of subjects, the description of the questionnaire used to collect the data and the procedures and methods of data collection are detailed in this chapter.

Selection of Subjects

In order to select the subjects for this study, the following procedures were utilized. All collegiate football teams that compete as members of the NCAA were divided into groups based solely on their NCAA-designated division of competition, specifically, either division I-A, I-AA, II or III. All NCAA-member men's basketball teams were then divided into similar groups, with the exception of division I-AA, which does not exist in men's basketball.

Next, each football team's winning percentage during the 1996 season of competition was calculated within each group based on won-loss records accumulated during that time period. Winning percentages were then calculated for each basketball team within each group based on won-loss records accumulated during the 1996-97 season of competition.

Subjects were then selected based on the following criteria. Teams within each group, for both football and men's basketball, were ranked in descending order according to their calculated winning percentage for the season indicated. The 50 highest ranked teams, including ties, from each group were then selected as subjects for this study. The total number of coaches selected for the study following this procedure was 370,
including 213 football and 157 basketball head coaches, respectively. Table 1 describes the numerical breakdown of the complete subject pool by sport and division.

Table 1
Number of Subjects Selected by Sport and Division

<table>
<thead>
<tr>
<th>Division</th>
<th>Football</th>
<th>Basketball</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-A</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>I-AA</td>
<td>50</td>
<td>N/A</td>
</tr>
<tr>
<td>II</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>III</td>
<td>57</td>
<td>51</td>
</tr>
</tbody>
</table>

Description of the Instrument

The instrument utilized for the study was adapted from the Team Excellence, Feedback for Development measure, developed by Larson and LaFasto (1989). This instrument has been utilized by its creators in several studies of business teamwork. Reported Cronbach’s Alpha reliabilities for each subsection of questions have ranged from a low of .80 to a high of .88 (Larson & LaFasto, 1989). The 37 items and corresponding response scale adapted from the survey were kept exactly as originally created for this study of collegiate athletic teamwork. However, the first page of the survey mailed was formulated specifically for this research. The four questions located on that page were designed to help organize and categorize each subject within specific groups. Additionally, the category names within the original survey were adapted to fit the current characteristics identified within this literature review. The survey instrument used for this study is located in Appendix A.
The 37 items within the instrument were designed to analyze each of the six teamwork elements described in this work. Table 2 describes the number of questions relating to each of the six teamwork characteristics. The response scale for the instrument used a four-point Likert system that allowed the participant to choose a number between 1 and 4 to indicate a response to each item of false, more false than true, more true than false and true, respectively.

Table 2

Number of Questions in Survey Representing Each Teamwork Characteristic

<table>
<thead>
<tr>
<th>Teamwork Characteristic</th>
<th>Number of Questions in Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal Clarity</td>
<td>6</td>
</tr>
<tr>
<td>Results-Oriented Structure</td>
<td>8</td>
</tr>
<tr>
<td>Qualified Personnel</td>
<td>4</td>
</tr>
<tr>
<td>Singular Commitment</td>
<td>3</td>
</tr>
<tr>
<td>Collaborative Climate</td>
<td>3</td>
</tr>
<tr>
<td>Expert Leadership</td>
<td>13</td>
</tr>
</tbody>
</table>

Data Collection

The survey instrument was sent to each subject on February 24, 1998, along with a pre-addressed, postage-paid envelope for convenient return of the completed questionnaire. Each return envelope had a number printed on the lower left corner to represent each of the 370 subjects selected. That number was included only to monitor which subjects had responded to the questionnaire and were to be included in the study. A cover letter explaining the intent and importance of the study for adding to the existing teamwork body of knowledge was also sent with each survey. The letter, found in Appendix B, explained to each head coach that the survey was to be filled out and
returned by March 17, 1998. At that time, in order to increase the number of returned surveys, follow-up postcards were scheduled to be sent to those subjects who had not yet returned their completed questionnaires. The goal of a 50% return for all surveys sent was established as the target rate for inclusion in the study.
CHAPTER IV

RESULTS AND DISCUSSION

Sample

Six weeks after the initial mailing, 219 completed surveys out of 370 sent had been returned for inclusion in the study. Because the 59.2% response rate surpassed the proposed target rate of 50%, the study was closed to future subject participation on April 7, 1998 and no follow-up postcards were sent. Table 3 depicts the numerical breakdown of returned surveys as well as a percentage description of returned surveys with respect to the number sent in each sport and division.

Data Analysis

After the study was closed to future subject participation, all survey results included in the study were entered into a computer database for statistical analysis. First, the survey instrument was tested for its reliability with respect to each of the six groups of questions. Table 4 describes the specific reliability analysis for each group using Cronbach’s Alpha test within the Statistical Package for the Social Sciences (SPSS). The overall reliability score of the complete survey was .822, based on the total of 219 surveys included in the study. The subscale scores corresponding to each of the proposed hypotheses was then put through one or more of the following statistical tests: multivariate analysis of variance (MANOVA), one-way analysis of variance (ANOVA), Tukey’s Post Hoc Test of Honestly Significant Differences and independent t-test analyses using the SPSS software. An alpha level of .05 was used for all statistical tests in this study.

29
The first three hypotheses tested whether or not significant differences in overall teamwork scores occurred between each sport and among each division of competition. The next three hypotheses were formulated to determine if any differences occurred within the sport- and division-specific teamwork itself. In other words, do the individual teamwork characteristics exist differently between the sports and among the divisions studied? The remainder of this chapter details the results of the hypotheses testing.

Table 3

Numerical and Percentage Breakdown of Returned Surveys by Sport and Division

<table>
<thead>
<tr>
<th>Division</th>
<th>Football</th>
<th>Basketball</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Returned</td>
<td>31</td>
<td>29</td>
</tr>
<tr>
<td>Percentage Returned</td>
<td>58.5%</td>
<td>54.7%</td>
</tr>
<tr>
<td>I-AA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Returned</td>
<td>28</td>
<td>N/A</td>
</tr>
<tr>
<td>Percentage Returned</td>
<td>56.0%</td>
<td>N/A</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Returned</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Percentage Returned</td>
<td>58.5%</td>
<td>62.3%</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Returned</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Percentage Returned</td>
<td>59.6%</td>
<td>64.7%</td>
</tr>
</tbody>
</table>
Table 4

Reliability Scores for Each Teamwork Characteristic Group of Questions

<table>
<thead>
<tr>
<th>Teamwork Characteristic Group</th>
<th>Reliability Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal Clarity</td>
<td>.707</td>
</tr>
<tr>
<td>Collaborative Climate</td>
<td>.632</td>
</tr>
<tr>
<td>Qualified Personnel</td>
<td>.485</td>
</tr>
<tr>
<td>Results-Oriented Structure</td>
<td>.683</td>
</tr>
<tr>
<td>Singular Commitment</td>
<td>.571</td>
</tr>
<tr>
<td>Expert Leadership</td>
<td>.644</td>
</tr>
</tbody>
</table>
Results

Hypothesis 1

There will be no significant differences in the overall teamwork scores among basketball divisions.

To test this hypothesis, each survey completed for the study was given a composite teamwork score. This score was an average of the total responses indicated on the survey. This teamwork score represented an overall teamwork value as determined by the head coach's responses. The purpose of this hypothesis was to determine if these overall teamwork values were significantly different among the three divisions of basketball competition. One-way analysis of variance (ANOVA) was conducted on the subscale for basketball teamwork means. The results of the ANOVA can be found in Table 5. Table 6 depicts the descriptive teamwork statistics by basketball division.

The ANOVA revealed that no significant differences were found in the overall teamwork scores among basketball divisions. In other words, coaches in all three basketball divisions perceived similar overall teamwork values within their respective programs. Because the ANOVA failed to detect any significant difference in overall teamwork scores between the three basketball divisions, the null hypothesis was accepted. The data and analyses suggest that teamwork, as a collection of the six characteristics identified, is the same within collegiate basketball, regardless of division of play.
### Table 5

**ANOVA Results of Basketball Teamwork Means among Divisions**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.051</td>
<td>2</td>
<td>0.026</td>
<td>0.649</td>
</tr>
<tr>
<td>Within groups</td>
<td>3.644</td>
<td>92</td>
<td>0.040</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* *p < .05.*

### Table 6

**Teamwork Score Descriptive Statistics by Basketball Division**

<table>
<thead>
<tr>
<th>Division</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3.494</td>
<td>0.182</td>
</tr>
<tr>
<td>II</td>
<td>3.436</td>
<td>0.186</td>
</tr>
<tr>
<td>III</td>
<td>3.463</td>
<td>0.224</td>
</tr>
</tbody>
</table>
Hypothesis 2

There will be no significant differences in the overall teamwork scores among football divisions.

To test this hypothesis, similar procedures were used as in hypothesis #1. The purpose of the hypothesis was to determine if overall teamwork was scored differently in football among divisions. As previously done in basketball, a subscale was created that determined an overall teamwork score for each survey received. Each individual teamwork score was the average of all responses given in each survey. This subscale was then put through one-way ANOVA testing to determine if these overall teamwork scores were different among the four football divisions studied. The results of the ANOVA are depicted in Table 7. Table 8 describes the teamwork scores by football division.

Similar to the first hypothesis results, no significant differences were found in the teamwork scores among the football divisions. The data suggests that, as in basketball, teamwork in football does not vary among divisions of play. Because no significant differences were found among the four football divisions of competition, the null hypothesis was accepted. Therefore, overall teamwork is the same for all collegiate football teams, regardless of divisions of competition.

Table 7

ANOVA Results of Football Teamwork Means among Divisions

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.149</td>
<td>3</td>
<td>0.050</td>
<td>1.046</td>
</tr>
<tr>
<td>Within groups</td>
<td>5.703</td>
<td>120</td>
<td>0.048</td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05.
Table 8

Teamwork Score Descriptive Statistics by Football Division

<table>
<thead>
<tr>
<th>Division</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-A</td>
<td>3.589</td>
<td>0.175</td>
</tr>
<tr>
<td>I-AA</td>
<td>3.528</td>
<td>0.202</td>
</tr>
<tr>
<td>II</td>
<td>3.577</td>
<td>0.224</td>
</tr>
<tr>
<td>III</td>
<td>3.506</td>
<td>0.257</td>
</tr>
</tbody>
</table>
Hypothesis 3

There will be no significant difference in the overall teamwork scores between basketball and football.

This hypothesis was formulated to determine if the overall teamwork scores for basketball were significantly different than the teamwork scores for football. To test this hypothesis, a composite mean teamwork score was established for basketball and football using all surveys included in the study. Independent sample t-testing was performed on the subscale to determine if a significant difference existed between the two sports with respect to teamwork. The results of the t-test are displayed in Table 9. The t-test revealed that the teamwork means were significantly different between basketball and football. Therefore, the null hypothesis was rejected. The subscale and analysis determined that the overall teamwork score for football was significantly higher than the basketball teamwork score.

Table 9

t-test Results between Basketball and Football Teamwork Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>217</td>
<td>-3.026*</td>
</tr>
</tbody>
</table>

Note: *p < .05, two-tailed.
Table 10

Teamwork Score Descriptive Statistics by Sport

<table>
<thead>
<tr>
<th>Sport</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>3.463</td>
<td>0.198</td>
</tr>
<tr>
<td>Football</td>
<td>3.550</td>
<td>0.218</td>
</tr>
</tbody>
</table>
Hypothesis 4

There will be no significant difference in each characteristic's contribution to teamwork among basketball divisions.

This hypothesis was formulated to determine if any of the six teamwork characteristic means were significantly different among the three basketball divisions of competition. Although the first hypothesis determined that no significant differences occurred among the basketball divisions with respect to overall teamwork, MANOVA testing was conducted on the subscale to determine if any individual characteristic means were different among basketball divisions. The MANOVA results are located in Table 11 and Table 12.

The MANOVA determined that the results-oriented structure means were significantly different among the three basketball divisions. No differences were found with respect to the other teamwork characteristics. Because the MANOVA found that the results-oriented structure means were different among divisions, a Tukey’s test was next performed on the subscale to determine exactly where the significant differences occurred. The results of the Tukey’s test can be found in Table 13. The characteristic descriptive statistics for basketball are located in Table 14. The results of this test found that the Divisions I results-oriented structure mean was significantly higher than the corresponding mean within Division III basketball. Because significant characteristic mean differences were found among the basketball divisions, the null hypothesis was rejected. A results-oriented structure was more prevalent in Division I basketball than it was in Division III.
Table 11  
**MANOVA Results of Characteristic Means among Basketball Divisions**

<table>
<thead>
<tr>
<th>Wilk's Lambda</th>
<th>Hyp. df</th>
<th>Error df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.772</td>
<td>12</td>
<td>174</td>
<td>2.005*</td>
</tr>
</tbody>
</table>

*Note. *p < .05.*

Table 12  
**Univariate F-test Results with (2, 92) D.F. among Basketball Divisions**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hyp. SS</th>
<th>Error SS</th>
<th>Hyp. MS</th>
<th>Error MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative climate</td>
<td>0.793</td>
<td>16.721</td>
<td>0.396</td>
<td>0.182</td>
<td>2.181</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>0.035</td>
<td>4.865</td>
<td>0.018</td>
<td>0.053</td>
<td>0.332</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>0.146</td>
<td>9.998</td>
<td>0.073</td>
<td>0.109</td>
<td>0.674</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>0.053</td>
<td>12.309</td>
<td>0.026</td>
<td>0.134</td>
<td>0.196</td>
</tr>
<tr>
<td>Results-oriented structure</td>
<td>0.849</td>
<td>11.604</td>
<td>0.424</td>
<td>0.126</td>
<td>3.365*</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>1.006</td>
<td>21.197</td>
<td>0.503</td>
<td>0.230</td>
<td>2.183</td>
</tr>
</tbody>
</table>

*Note. *p < .05.*
### Table 13

**Tukey's Results for Results-Oriented Structure among Basketball Divisions**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Division I</th>
<th>Division II</th>
<th>Division III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>S</td>
<td>M</td>
</tr>
<tr>
<td>Collaborative climate</td>
<td>3.218</td>
<td>0.430</td>
<td>3.271</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>3.576</td>
<td>0.211</td>
<td>3.577</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>3.707</td>
<td>0.358</td>
<td>3.635</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>3.267</td>
<td>0.334</td>
<td>3.320</td>
</tr>
<tr>
<td>Results structure</td>
<td>3.466</td>
<td>0.304</td>
<td>3.273</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>3.368</td>
<td>0.449</td>
<td>3.177</td>
</tr>
</tbody>
</table>

*Note.* *p < .05.* ns = not significant.

### Table 14

**Basketball Characteristic Descriptive Statistics by Division**
Hypothesis 5

There will be no significant difference in each characteristic’s contribution to teamwork among football divisions.

The second hypothesis determined that no significant differences occurred among the four football divisions with respect to overall teamwork scores. This hypothesis was formulated to examine whether any of the six teamwork characteristics were significantly different among football divisions. MANOVA testing was conducted on the subscale to locate any significant characteristic differences. The MANOVA results are depicted in Table 15 and Table 16.

The MANOVA found that goal clarity was significantly different among the four football divisions. No other significant differences were found. Because the MANOVA discovered differences within the subscale, Tukey’s test was performed to determine exactly where the differences occurred. The Tukey’s test results are located in Table 17, while Table 18 describes the characteristic statistics by football division. The test revealed that goal clarity was significantly higher in Division I-A football than in Division III. Additionally, goal clarity was significantly higher in Division II than in Division III football. Because the analyses determined that significant teamwork characteristic differences did occur among football divisions, the null hypothesis was rejected. Goal clarity was more prevalent in Division I-A and Division II than it was in Division III football.
Table 15

MANOVA Results of Characteristic Means among Football Divisions

<table>
<thead>
<tr>
<th>Wilk's Lambda</th>
<th>Hyp. df</th>
<th>Error df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.778</td>
<td>18</td>
<td>325.75</td>
<td>1.683*</td>
</tr>
</tbody>
</table>

Note. *p < .05.

Table 16

Univariate F-test Results with (3, 120) D.F. among Football Divisions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hyp. SS</th>
<th>Error SS</th>
<th>Hyp. MS</th>
<th>Error MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative climate</td>
<td>1.037</td>
<td>19.827</td>
<td>0.346</td>
<td>0.165</td>
<td>2.092</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>0.133</td>
<td>8.047</td>
<td>0.044</td>
<td>0.067</td>
<td>0.660</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>1.258</td>
<td>11.601</td>
<td>0.419</td>
<td>0.097</td>
<td>4.337*</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>0.035</td>
<td>16.145</td>
<td>0.012</td>
<td>0.135</td>
<td>0.086</td>
</tr>
<tr>
<td>Results-oriented structure</td>
<td>0.364</td>
<td>14.267</td>
<td>0.121</td>
<td>0.112</td>
<td>1.020</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>0.635</td>
<td>22.110</td>
<td>0.218</td>
<td>0.184</td>
<td>1.149</td>
</tr>
</tbody>
</table>

Note. *p < .05.
### Table 17

**Tukey's Results for Goal Clarity among Football Divisions**

<table>
<thead>
<tr>
<th>Division I-A</th>
<th>Division I-AA</th>
<th>Division II</th>
<th>Division III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division I-A</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Division I-AA</td>
<td>ns</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Division II</td>
<td>ns</td>
<td>ns</td>
<td>----</td>
</tr>
<tr>
<td>Division III</td>
<td>*</td>
<td>ns</td>
<td>*</td>
</tr>
</tbody>
</table>

*Note: *p < .05. ns = not significant.

### Table 18

**Football Characteristic Descriptive Statistics by Division**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>D I-A</th>
<th>D I-AA</th>
<th>D II</th>
<th>D III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>S</td>
<td>M</td>
<td>S</td>
</tr>
<tr>
<td>Collaborative climate</td>
<td>3.473</td>
<td>0.454</td>
<td>3.298</td>
<td>0.378</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>3.675</td>
<td>0.238</td>
<td>3.615</td>
<td>0.246</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>3.839</td>
<td>0.234</td>
<td>3.673</td>
<td>0.322</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>3.363</td>
<td>0.302</td>
<td>3.411</td>
<td>0.321</td>
</tr>
<tr>
<td>Results structure</td>
<td>3.488</td>
<td>0.327</td>
<td>3.460</td>
<td>0.301</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>3.409</td>
<td>0.461</td>
<td>3.429</td>
<td>0.414</td>
</tr>
</tbody>
</table>
Hypothesis 6

There will be no significant difference in each characteristic’s contribution to teamwork between basketball and football.

The third hypothesis determined that the overall football teamwork score was significantly higher than the corresponding score for basketball. This hypothesis was formulated to determine if any significant differences in individual characteristic means occurred between the two sports. MANOVA testing was conducted on the subscale to determine if any differences occurred between the two sports. The MANOVA results, located in Table 19 and Table 20, found that several significant differences existed between basketball and football. Table 21 provides the characteristic descriptive statistics by sport. A results-oriented structure, a collaborative climate and a singular commitment were scored significantly higher in football than in basketball. Therefore, the data suggests that these three characteristics were more prevalent in football than they were in basketball. Because significant differences were found among the six characteristics between the two sports, the null hypothesis was rejected.

Table 19

<table>
<thead>
<tr>
<th>Wilk's Lambda</th>
<th>Hyp. df</th>
<th>Error df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.941</td>
<td>6</td>
<td>212</td>
<td>2.237*</td>
</tr>
</tbody>
</table>

Note. *p < .05.
Table 20

Univariate F-test Results with (1, 217) D.F. between Basketball and Football

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hyp. SS</th>
<th>Error SS</th>
<th>Hyp. MS</th>
<th>Error MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative climate</td>
<td>0.965</td>
<td>38.377</td>
<td>0.965</td>
<td>0.177</td>
<td>5.458*</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>0.187</td>
<td>13.080</td>
<td>0.187</td>
<td>0.060</td>
<td>3.109</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>0.082</td>
<td>23.004</td>
<td>0.082</td>
<td>0.106</td>
<td>0.773</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>0.348</td>
<td>28.541</td>
<td>0.348</td>
<td>0.132</td>
<td>2.646</td>
</tr>
<tr>
<td>Results-oriented structure</td>
<td>0.812</td>
<td>27.083</td>
<td>0.812</td>
<td>0.125</td>
<td>6.508*</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>1.457</td>
<td>44.949</td>
<td>1.457</td>
<td>0.207</td>
<td>7.033*</td>
</tr>
</tbody>
</table>

Note. *p < .05.
Table 21

**Characteristic Descriptive Statistics by Sport**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Basketball</th>
<th></th>
<th>Football</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>S</td>
<td>M</td>
<td>S</td>
</tr>
<tr>
<td>Collaborative climate</td>
<td>3.312</td>
<td>0.432</td>
<td>3.446</td>
<td>0.412</td>
</tr>
<tr>
<td>Expert leadership</td>
<td>3.562</td>
<td>0.228</td>
<td>3.621</td>
<td>0.258</td>
</tr>
<tr>
<td>Goal clarity</td>
<td>3.690</td>
<td>0.329</td>
<td>3.729</td>
<td>0.323</td>
</tr>
<tr>
<td>Qualified personnel</td>
<td>3.303</td>
<td>0.363</td>
<td>3.383</td>
<td>0.363</td>
</tr>
<tr>
<td>Results structure</td>
<td>3.324</td>
<td>0.364</td>
<td>3.447</td>
<td>0.345</td>
</tr>
<tr>
<td>Singular commitment</td>
<td>3.319</td>
<td>0.486</td>
<td>3.484</td>
<td>0.430</td>
</tr>
</tbody>
</table>
CHAPTER V

SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to examine the presence of the six teamwork characteristics within successful collegiate basketball and football teams. Six hypotheses were formulated and investigated to determine what relationships exist between the teamwork characteristics and their relative importance within the collegiate basketball and football. This chapter will summarize the important findings of the study, describe the ensuing implications for sport coaches and provide recommendations for future research within the collegiate teamwork environment.

Summary of Results

The major findings of the study, as presented and discussed in the previous chapter, can be summarized as follows:

1. No significant differences were found in overall teamwork scores among basketball divisions;
2. No significant differences were found in overall teamwork scores among football divisions;
3. The overall teamwork score for football was significantly higher than the overall basketball teamwork score;
4. A results-oriented structure was significantly higher in Division I basketball than it was in Division III basketball;
5. Goal clarity was significantly higher in Division I-A and Division II football than it was in Division III football;
6. A collaborative climate, a results-oriented structure and a singular commitment were significantly higher in football than in basketball.

Implications for Collegiate Basketball and Football Coaches

The first three hypotheses were designed to test for any differences in overall teamwork scores between the two sports and among the divisions of competition within each sport. The analyses determined that no significant differences occurred among divisions within each sport. Teamwork within collegiate basketball teams was not different among divisions. Similarly, football teamwork was not different among divisions. Therefore, coaches within all three basketball divisions and all four football divisions viewed overall teamwork in the same way, regardless of division of competition.

However, overall teamwork analysis found that significant differences occurred between the two sports. Football coaches perceive a higher presence of the teamwork characteristics than do basketball coaches. Perhaps the size differential between the two sport teams is a reason for more attention given to football teamwork. For example, Division I-A football teams can have over 150 players on their rosters, while all basketball teams generally have approximately 15 members. Because of the much larger size of football teams, football coaches may perceive the need to concentrate more on effective teamwork to unify the team. In other words, getting every player on the same page may require additional attention and effort by football coaches because of the sheer numbers associated with the team.

This concept has support within current teamwork literature. Building on numerous prior studies, Wagner (1995) determined that larger group size negatively influences cooperation. Additional research found that perceptions of task and social cohesion were greater in smaller groups (Carron and Spink, 1995). Football coaches may discern a similar occurrence within their teams. Because of increased team size, football
coaches may perceive more attention being given to maintaining the teamwork characteristics within their programs. Future studies need to focus specifically on the relationship between team size and the presence of the teamwork characteristics.

The data and subsequent analyses also found that the six teamwork characteristics contribute differently to teamwork within basketball and football and at each level of NCAA competition. Consequently, football and basketball coaches should be aware of these results to establish and maintain effective teamwork. The data results found clear differences in teamwork characteristic scores between football and basketball. Rank-order analyses determined that each teamwork characteristic within football was higher than the corresponding scores for basketball. Subsequent testing revealed that three of the six mean pairs were significantly different. Again, these differences between the two sports may be related to team size.

First, the data suggested that a results-oriented structure was significantly higher in football than in basketball. Larson and LaFasto's (1989) teamwork research determined that business teams which attempt to accomplish a tactical objective must structurally begin with clear definitions of the overall task and each supporting role that complements the achievement of that task. This study's results suggest that football teams have more focus on defining team tasks and clearer individual role functions than basketball teams.

Perhaps the need for greater concentration on a results-oriented structure can again be attributed to the relative size of basketball and football teams. Larger team size may lead to more focus on individual role responsibilities. Katzenbach and Smith (1993) suggest that teamwork occurs when a team holds itself accountable as a single unit. The results of this study suggest that total unity may require more effort to achieve as sport team size increases. Galam's and Moscovici's (1994) research supports this assertion. Their study of groups suggests that larger groups may have an easier time generating
internal conflicts. This may similarly cause football teams, because of their large sizes, to lack the acceptance of the necessary roles that lead to effective teamwork.

The length of the season for both sports may also contribute to the higher perception of a results-oriented structure in football teams. Collegiate football teams play up to 13 games per season compared to over 30 games for basketball teams. One loss has traditionally knocked a football team out of the national championship picture (Wolff, 1994). This is not the case in basketball because of the presence of the post-season championship tournament. The automatic berths given to basketball conference tournament champions open the door for all teams to compete in the national championship tournament, regardless of regular season won-loss records. This opportunity simply does not exist in collegiate football. Therefore, football teams may perceive a greater focus on needing to win every game during their comparatively shorter season. Length of competitive seasons may have an impact on the presence of a results-oriented structure.

Second, a singular commitment was scored significantly higher in football teamwork than in basketball teamwork. Nelson (1992) suggests that a singular commitment occurs when each team member realizes that individual output remains a piece of the collective team effort toward achieving team goals. It may be that team size plays an important role in the singular commitment difference between the two sports. Because of the increased size of football teams, coaches may spend more energy maintaining Segall’s (1985) assertion that team member egocentric behavior must give way to group goals. Robbins and Finley (1993) also suggest that “turf wars” (p. 39) can disrupt effective teamwork. This may parallel the study by Blanz, Mummendey and Otten (1995) that suggested in-group favoritism occurs in greater negative contexts as group size increases. These studies give support to the idea that team size affects a team’s singular commitment.
Finally, a collaborative climate was more prevalent in football teamwork than in basketball teamwork. The primary element of a collaborative climate is cohesion, the glue that keeps the team's togetherness intact. Mackay (1993) adds that it is vital for team members and coaches to allow the theme of trust to permeate the team environment. Team size may again be a reason why football coaches emphasize a collaborative climate more than do basketball coaches. Because eleven players function simultaneously on a football team at any given time compared to only five basketball players, trust may be more valuable yet also more difficult to attain in football.

Larson and LaFasto (1989) indicated that trust within a collaborative climate allows teams to stay problem-focused. It may be suggested, then, that because of the separate playing units within football, football coaches must focus more on a collaborative climate to achieve high levels of effective teamwork than basketball coaches. Because each unit is responsible for a specific facet of the game, either offense, defense or special teams, these units may need to depend heavily on each other and often may get motivation from the other units' play. On the other hand, basketball teams may discern trust in a different manner because each player must rely on his teammates to continuously play both offense and defense throughout the game in order to be successful. Because football has much larger teams and each team is comprised of several separate specialized units, football coaches may perceive a greater presence of this teamwork characteristic than do basketball coaches.

The study also determined that the presence of the six teamwork characteristics was significantly different among the three divisions of basketball competition as well as the four football divisions. The results indicate that in basketball, a results-oriented structure was perceived differently among the three divisions studied. Additionally, goal clarity was significantly different among the four football divisions studied. Both basketball and football coaches should examine the roles of a results-oriented structure
and goal clarity, respectively, in conjunction with the division in which their teams compete when striving to establish effective teamwork.

First, a results-oriented structure was more significant in Division I basketball than in Division III. Larson and Lafasto (1989) suggested that in an effective structure, team effort relies on individual responsibilities and the assumption of accountability. The primary reason that team results may be more important at the Division I level may be directly related to money. Because each team receives a portion of that purse depending on how far it advances in the tournament, financial considerations are of primary concern to collegiate programs, which ultimately survive or die because of the presence or nonexistence of money. It may be suggested that Division I basketball coaches perceive a stronger results-oriented structure because of the pressures derived from financial considerations placed on these programs to win. These pressures may not exist in Division III basketball.

In football, goal clarity was significantly higher in Division I-A teamwork than in Division III. Additionally, goal clarity was also scored higher in Division II than it was at the Division III level with respect to teamwork characteristic presence. Zenger, Musselwhite, Hurson and Perrin (1994) attempt to define the vital nature of goal clarity by suggesting that the first step toward team success is establishing a shared understanding of the team's purpose. Perhaps, then, the intense focus on such a common understanding of purpose and team goals at the Division I-A level may be affected by the greatly higher amounts of money rewarded to bowl game-winning programs than are offered to football programs competing within the other three divisions. Coaches in Division I-A, because of these large sums of money offered to winning institutions, may perceive that a more intense focus on goal clarity needs to be emphasized than do Division III coaches to maintain effective teamwork.

The data may have specific implications for coaches within each specific sport and division studied. Coaches should understand that the teamwork characteristics
emerge differently within each division of both basketball and football. Therefore, coaches must examine the relationship of the characteristics within their specific sport and division in order to promote and maintain effective teamwork.

Creating a blueprint for effective teamwork within collegiate basketball and football teams must clearly begin with goal clarity at every division of competition. Larson and LaFasto's (1989) research found that the underlying foundation of all successful business teams is a clear understanding by each team member of team goals. Similarly, collegiate basketball and football coaches perceived goal clarity to have the greatest presence of the six teamwork characteristics within their respective teams. That characteristic received the highest mean score of all teamwork characteristics in both sports and among all divisions studied is important. Translating Robbins' and Finley's (1995) conclusions into a sport domain suggests that collegiate basketball and football coaches should consistently promote team goals that are measurable, attainable, performance-related and specific to enhance overall teamwork.

The next highest teamwork characteristic score after goal clarity in each sport and division was the presence of expert leadership. Coaches should strive to motivate each player's "performance ethic" (Katzenbach and Smith, 1993, p. 176) and maximize player desire in order to achieve high levels of team output. The study suggests that the presence of the remaining teamwork characteristics becomes sport- and division-specific. Nonetheless, this research suggests that successful collegiate basketball and football coaches in all divisions have different, yet clear, perceptions of the existence of the teamwork characteristics within their respective teams.

Recommendations for Future Research

Future teamwork studies of collegiate basketball and football teams should focus on several concepts that have come out of this study. First, the role of team size should be examined to explore whether different numbers of players on a team can cause the
teamwork characteristics to contribute differently to overall teamwork. Second, the impact that financial considerations may have on collegiate basketball and football teamwork should also be investigated. Additionally, the role of qualified personnel within basketball and football teams must be explored further. That this characteristic was scored comparatively low by coaches seems to contradict rational thought because coaches are always battling each other to recruit the most talented players for their teams. Perhaps the low reliability score for qualified personnel on the survey instrument indicates that more precise items should be included in future personnel research to better reflect true perceptions of talented athletes. Nonetheless, future research should closely examine the possibly dynamic role of having the most qualified personnel on collegiate sport teams.

Future research in the collegiate sport teamwork domain should also attempt to include results that can be generalized for sports other than basketball and football. Specific studies could include research into the teamwork characteristics and their contributory effects within non-revenue generating sports, such as baseball, soccer, tennis and lacrosse. Future studies should also include female sports, such as softball, gymnastics and volleyball. Teamwork needs to be studied within all collegiate sports, both male and female, to establish valid teamwork conclusions.

Perhaps the teamwork survey should also be completed by an assistant coach, in addition to the head coach, to determine a composite average for each team studied, which could eliminate the personal biases and perception limitations that might stem from only one evaluator. Additionally, the teamwork survey may need to be administered again to determine if it is as reliable in sport contexts as it has proven to be in business environments. Because of the relatively low reliability scores determined for each subscale within the data, perhaps the survey items need to be refined to produce accurate, valid responses. Consequently, the data compiled for this study may in fact be
skewed because of the survey items. The reliability of the survey needs to be validated within future teamwork studies.

Finally, the teamwork survey should be administered to basketball and football teams with losing records to examine the effective presence of the teamwork characteristics within that particular group of teams. Perhaps coaches of losing basketball and football teams do not perceive the presence of the teamwork characteristics the same way as do successful coaches. Future teamwork studies need to examine all basketball and football teams to produce validated teamwork conclusions. Clearly, teamwork is a complex entity that, because of its dynamic existence within sports and competitive divisions, should be exhaustively studied to produce generalizable results that can be interpreted and utilized within the collegiate sport domain.
APPENDIX A
TEAMWORK SURVEY
Please circle your answers to the following items:

1. What sport do you coach?
   a. Men's Basketball
   b. Football

2. In what NCAA division does your team compete?
   a. Division I-A
   b. Division I-AA
   c. Division II
   d. Division III

3. If a football coach, how much institutional funding is provided annually to your program?
   a. $0 - $1,000,000
   b. $1,000,001 - $2,000,000
   c. $2,000,001 - $3,000,000
   d. $3,000,001 - $4,000,000
   e. $4,000,001 - $5,000,000
   f. More than $5,000,000

4. If a basketball coach, how much institutional funding is provided annually to your program?
   a. $0 - $250,000
   b. $250,001 - $500,000
   c. $500,001 - $750,000
   d. $750,001 - $1,000,000
   e. $1,000,001 - $1,250,000
   f. $1,250,001 - $1,500,000
   g. More than $1,500,000
To the left of each item is a scale for recording your responses. Read the item, think about the extent to which it applies to your team and circle the appropriate number.

The scale for the responses is as follows:

- **4** – True
- **3** – More True Than False
- **2** – More False Than True
- **1** – False

### Goal Clarity

1. There is a clearly defined need – a goal to be achieved or a purpose to be served – which justifies the existence of our team.

2. The significance of our team goal is appealing:
   - **4** 3 2 1  a. Our purpose is noble and worthwhile.
   - **4** 3 2 1  b. Our goal represents an opportunity for an exceptional level of achievement.
   - **4** 3 2 1  c. Our goal challenges individual limits and abilities.

3. There are clear consequences connected with our team’s success or failure in achieving our goal.

4. Our goal is compelling enough that I can derive a worthwhile sense of identity from it.

### Results-Oriented Structure

5. The design of our team is determined by the results we need to achieve rather than by extraneous considerations.

6. Each member’s relationship to the team is defined in terms of role clarity and accountability.
The scale for the responses is as follows:

4 - True  
3 - More True Than False  
2 - More False Than True  
1 - False

7. Our communication system has:

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<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>a. information which is clearly accessible.</td>
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<td>4</td>
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<td>b. credible sources of information.</td>
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<td>c. opportunities for team members to raise issues not on the formal agenda.</td>
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<td>1</td>
<td>d. methods for documenting issues raised and decisions made.</td>
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8. We have an established method for monitoring individual performance and providing feedback.

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<tr>
<td>4</td>
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<td>9. Our decision-making process encourages judgments based on factual and objective data.</td>
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Qualified Personnel

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<td>4</td>
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<td>10. Team members possess the essential skills and abilities to accomplish the team’s objectives.</td>
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<tr>
<td>4</td>
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<td>11. Each individual on the team demonstrates a strong desire to contribute to the team’s success.</td>
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<tr>
<td>4</td>
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<td>2</td>
<td>1</td>
<td>12. Team members are confident in the abilities of each other.</td>
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<tr>
<td>4</td>
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<td>2</td>
<td>1</td>
<td>13. Team members are capable of collaborating effectively with each other.</td>
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</table>
The scale for the responses is as follows:

4 - True
3 - More True Than False
2 - More False Than True
1 - False

**Singular Commitment**

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<td>14.</td>
<td>Achieving our team goal is a higher priority than any individual objective.</td>
<td>4</td>
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<td>15.</td>
<td>Team members believe that personal success is achieved through the accomplishment of the team goal.</td>
<td>4</td>
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<td>16.</td>
<td>Team members are willing to devote whatever effort is necessary to achieve team success.</td>
<td>4</td>
<td>3</td>
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**Collaborative Climate**

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<td>17.</td>
<td>We trust each other sufficiently to accurately share information, perceptions and feedback.</td>
<td>4</td>
<td>3</td>
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<tr>
<td>18.</td>
<td>We help each other by compensating for individual shortcomings.</td>
<td>4</td>
<td>3</td>
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<tr>
<td>19.</td>
<td>As a team we embrace a common set of guiding values.</td>
<td>4</td>
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**Expert Leadership**

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<td>20.</td>
<td>I articulate our goal in such a way as to inspire commitment.</td>
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<td>21.</td>
<td>I avoid compromising the team’s objective with political issues.</td>
<td>4</td>
<td>3</td>
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<tr>
<td>22.</td>
<td>I exhibit personal commitment to our team’s goal.</td>
<td>4</td>
<td>3</td>
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<tr>
<td>23.</td>
<td>I do not dilute the team’s efforts with too many priorities.</td>
<td>4</td>
<td>3</td>
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</table>
The scale for the responses is as follows:

4  -  True
3  -  More True Than False
2  -  More False Than True
1  -  False

24. I stand behind our team and support it.
25. I am fair and impartial toward all team members.
26. I exhibit trust by giving team members meaningful levels of responsibility.
27. I provide team members the necessary autonomy to achieve results.
28. I am willing to confront and resolve issues associated with inadequate performance by team members.
29. I present challenging opportunities which stretch the individual abilities of team members.
30. I recognize and reward superior performance.
31. I am open to new ideas and information from team members.
32. I am able to get outside constituencies – alumni, students, community, the administration – to support our team’s effort.
APPENDIX B

TEAMWORK SURVEY COVER LETTER
February 6, 1998

Dear Coach:

While the concept of teamwork has been widely explored in the business community, teamwork in collegiate athletics has yet to be analyzed as a singular entity. As sport becomes an increasing part of American society, the need to understand how successful athletic teams are built and maintained also grows. This survey is being conducted as part of a Master’s Thesis in Sport Management. The questionnaire has been sent to over 300 collegiate basketball and football coaches throughout the entire country. Your answers provided will be utilized to expand the current knowledge of teamwork within collegiate athletics.

Your voluntary participation will be crucial in representing the entire collegiate coaching profession within these sports. Please take the time to complete the enclosed questionnaire. There are no right or wrong answers, only your much-needed opinions. All responses will be treated confidentially. Please drop your postage-paid, preaddressed envelope in the mail by March 13 to ensure inclusion in the study.

Questions regarding this survey may be directed to my advisor, Dr. Jim Busser, by phone at (702) 895-0942 or email at busser@nevada.edu. Thank you for taking the time to complete this survey. Your participation and assistance are greatly appreciated.

Sincerely,

Robert Gibbons
University of Nevada, Las Vegas
REFERENCES


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