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Leading, coaching, & mentoring: a study of coach-athlete relationships as associated factors in performance

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LEADING, COACHING, & MENTORING: A STUDY OF COACH-ATHLETE RELATIONSHIPS AS ASSOCIATED FACTORS IN PERFORMANCE

A dissertation submitted in partial satisfaction

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Doctor of Philosophy in Global Leadership and Change

by

Katherine D. Kamachi

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This dissertation, written by

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DEDICATION

Don’t let the madness of quiet get to you. Instead embrace the silence of pause and peace.

This dissertation, is a labor of love, focus, hard work, sleepless nights, early mornings, and extreme sacrifice, dedicated first to my three amazing daughters, Mia K., Kiana Marie, and Ava K. Without them, their support, sacrifice, and love none of this could have happened. They are my heart and soul. Watch out world these three are more headstrong than their Mama, smarter than anyone I have met, and have extreme empathy and love for all. Love you three from the bottom of my heart and as much as all the stars in the sky, sand on the earth, and possibilities you have in your future. My ultimate championship team: Kamachi Hen House.

I also dedicate this dissertation to those who have passed on before us, fighting battles no one knows, accidents taking them too soon, and health complications affecting dreams and families all around. These angels have included some of my own friends, family, students, student-athletes, and colleagues. May you fly high and your family have peace. Rest In Love.

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I would like to first acknowledge my family who not only listened to countless ideas on sport and global leadership but who also first introduced me to sport at only a few days old. My Dad, Coach Kamachi, the ultimate Head Coach and B. A. who not only has coached me for countless hours but who also showed me how to bring out the best in your team. My Mom, Susie, for always supporting me even with non-stop questions of when I would be complete but also questions to make sure I have eaten that day. My Sister, Jolie Marie, for stepping up to help me be the ultimate single mama with support and for birthing my favorite athletes outside of my own babies. For two of my nephews, Trey and Cory, for always reminding me I am not the best athlete of the family but also for helping me connect my nerd side to my jock side. To my brother, Scott, you got your master's degree first, but I beat you to the Ph.D. To my Uncle Lonnie, thank you for the convos and for the peace I had knowing you had my back every time I was onsite. To my other nieces and nephews, J.H., J.H., H.W., K.W., L.W., T.K., M.W., M.K., K.A., K.A., K.K., K.K, J.L., & J.L. thank you for your love, support, and for allowing me to watch your life from the sidelines, both literally and figuratively.

Love and appreciation for feedback, support, and access to all my other family, colleagues, and friends. Thank you for listening to my rants about my passion and ideas, for talking me off of the cliff often, for late night edits, fun statistics sessions, end of semester vacations and BBQ's, golf lessons, and for reminding me that the light at the end of the tunnel may be an oncoming train or the ultimate re-start. An ULTIMATE thank you and shout out to my teams, including my athletes, coaches, and administrators. I have truly felt your love and support through this and cannot wait to be present for all your success, both on and off the field. Especially grateful for the ones who need only 10', 60', 90', and 100 yds to bring joy to others and especially my life, MY TRUE CHAMPIONS! <3 1:11. And finally to my committee chair, M.J., and committee, you are my MVP's. <3

VITA

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Pepperdine University
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Concordia University-Portland
M.Ed. Educational Leadership **May 2014**
Thesis: Student Athlete Stress in Academia

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Areas of Concentration: Kinesiology, Athletic Training, Pre-Medicine

Grants and Awards

Pepperdine University Colleagues Grant	August 2016 – Present
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NACADA Business Professionals Professional Development	October 2015

Publications, papers, and presentations

Working Papers, Chapters, Grants:
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Kamachi, K., *"Competitive Sport and Global Governance"*

Kamachi, K. & Grayson, K. *"Global Leadership and Competitive Sport: Trust as an indicator of success"*

Kamachi, K., & Grayson, K., *"Lessons from the Playing Field: Servant Leadership in Sport"*

Published & Presented:

Kamachi, K. *"Teach Me To Fish: Changing Curriculum and Vision for Greater Student Success," AOM TLC Annual Meeting, 2019*

Kamachi, K. *"From Status to Stature: A historical analysis of how one college went from a community college to college and then to university," UCLA CC2PHD Conference, 2018*

Kamachi, K. *"Flipping" the digital experience: Using case simulation and play in an undergraduate business school classroom,"* SAM International Business Journal, 2018

Kamachi, K. and Gill, D. *"H.O.P.E. for Belize: An economic initiative for the people of Belize,"* International Center for Global Leadership, 2017

Kamachi, K., Rintamaki, N., & Sandberg, R., "Bridging Business School Outcomes at the State Level," NACADA Conference, Las Vegas, NV, 2015

Kamachi, K. and Decker, D. ""Mixed Methods in Advisement: What Does It Look Like Within a Program for a Professional Advisor?", UAA Conference, SLC, UT, 2015

Kamachi, K., "In the Driver's Seat", UBAAN Spring 2015, February 27, 2015, St. George, Utah

Not Accepted

Caldwell, C., Hayes, L., and Kamachi, K., "Self-Efficacy, Self-Awareness, and Self-Esteem: Ethical Duties Leaders Owe Themselves," Journal of Business Ethics, 2015.

Teaching & University experience

Dixie State University, St. George, Utah

Visiting Instructor- Udvar-Hazy College of Business **2017-present**

Responsible for the oversight, assessment, creation, and implementation of new curriculum and text in these classes: BUS 1010: Introduction to Business, BUS 1050: Foundations of Business, MGMT 3700: Organizational Behavior;
Appointed to additional project work in the College of Business in relation to retention, recruitment, collaboration, mentoring, curriculum development, and other duties as overseen by the Dean of the College of Business;
Utah Business Academic Advisement Network (UBAAN) Executive Committee member (2017-2018 academic year);
Assist with scholarship committee awarding over $90,000 annually as a faculty member and student representative (2018-2019 academic year);
Women in Business Club Faculty Advisor (2016-17, 2017-18, 2018-19, 2019-20)

Interim Director of Student Success 2016-2017

Responsible for the oversight of all first-year programs related to retention and orientation such as:

Aligning core values of the institution with the values of orientation for multiple orientations throughout the year, revising summer orientations with the utilization of over 100 staff and student workers;

Performing maintenance with the early alert system aligning with best practices and integrated peer coaching initiatives for at-risk students for freshman cohorts with an increase of Fall 2016 to Spring 2017 retention by 6%;

Revamping a peer coaching program to facilitate needed change and accountability among first-year students with 45 student workers including mentors, coaches, leaders, and tutors;

Creation of a communication plan instituted in collaboration with recruitment to ensure proper handoff and responsibility with first-year students;

Creation of adequate positions, a delegation of duties, and office configurations to have an office environment catered to orientation, first-year students and at-risk students; Developed programs within the DSU Student Success center focusing on retention, program development, student success, and interventions

Adjunct Instructor 2012-2017

Adjunct Instructor for BUS 1001: FYE Business, ASC 1001: FYE, BUS 2000: Intermediate Career Strategies, COOP 1800R: Cooperative Education;

Developed and taught an FYE Online course for Dixie State University;

Assisted in writing and implementing assessment for FYE classes;

Provided support by teaching FYE within the Udvar-Hazy College of Business, Academic Support, and Interdisciplinary Arts and Sciences;

Committee member for reassessing curriculum and program outcomes for BUS 2000;

Cooperative Education instructor assessing needs of students related to career and education

Program Advisor- Udvar-Hazy College of Business 2013-2016

Led the Udvar-Hazy College of Business through periods of substantial growth and transition within student services with increases of enrollment from 800 to over 1200 students;

Developed and implemented digital record keeping for UHCB academic advisors to track and help students with course tracking;

Oversaw and coordinated UHCB scholarship fund and awarded over $90,000 annually;

Provided academic advisement and support to students within and interested in UHCB, which include non-traditional, student athletes, veterans, minorities, and first generation;

Primary advisor for student athletes, veterans, and returning adult populations;

Participated in curriculum development, committee assignments, and strategic planning within UHCB;

Created database systems to aid in strategic planning in relation to curriculum, scheduling, and course offerings within UHCB;

Identified student need and outcomes based on best practices and academic advisement

philosophy as related to Appreciative Advising training and conferences;
Facilitated meetings with incoming businesses and graduate schools;
Utah Business Academic Advisement Network (UBAAN) Executive Committee member

Academic Advisor- Interdisciplinary Arts and Sciences 2012-2013
Primary advisor for Student Athletes and Veterans
Aided students in emphasis choices, graduation requirements, and campus culture;
Engaged with many areas on campus which assisted with emphasis areas;
Maintained confidential files for advisement, curriculum, and administrative purposes

Southern Utah University, Cedar City, Utah
Marketing Advisor- Alpha Phi International Fraternity 2013-2014
Implemented training for Take Heart. Take Part. CPR training for Theta Sigma Chapter;
Engaged in administrative planning and implementation of fraternal programs;
Aided in marketing for fraternity events, socials, social media platforms, and alumnae network;
Provided support to members to fulfill fraternity core values

Courses Taught or guest lectures

Dixie State University
Course supervisor:
BUS 1001: FYE for Business; 4 sections per Fall semester & 1 section per Spring semester; Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016
BUS 1010: Introduction to Business; 4 sections per semester; Fall 17, Spring 18, Summer 18, Fall 18, Spring 19, Summer 19, Fall 19
BUS 1050: Foundations of Business; course supervisor for 6 sections per semester; Fall 18, Spring 19, Fall 2019, Spring 2020, Fall 2020
MGMT 3700: Organizational Behavior; course supervisor one section per semester; Fall 2019, Spring 2020

Instructor of record:
ASC 1001: First Year Experience; Fall 2013 (2 sections), Fall 2014 (1 section)
BUS 1001: FYE for Business; Spring 2014 (1 section), Fall 2014 (3 sections), Fall 2015 (2 sections), Fall 2016 (4 sections)
BUS 1010: Introduction to Business; Fall 2017 (2 sections), Spring 2018 (2 sections)
BUS 1050: Foundations of Business; Fall 2018 (4 sections), Spring 2019 (4 sections), Fall 2019 (4 sections), Spring 2020 (4 sections)
BUS 2000: Introduction to Career Strategies; Fall 2015 (2 sections), Spring 2015 (2 sections), Fall 2015 (2 sections), Spring 2016 (3 sections), Fall 2016 (3 sections), Fall 2017 (3 sections), Spring 2018 (3 sections)

COOP 1800R: Cooperative Work Experience; Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Summer 2017
MGMT 3700: Organizational Behavior; Fall 2019 (1 section), Spring 2020 (1 section)
SSC 3001R: Peer Mentoring & Leadership; Spring 2017 (1 section)

Guest Lecturer:
BUS 2000: Introduction to Career Strategies; Spring 2017
MGMT 3400: Management and Organizations; Fall 2017, Spring 2018, Fall 2018, Spring 2019
MGMT 4400: International Business; Fall 2016, Fall 2017, Fall 2018, Fall 2019, Spring 2020

Pepperdine University
Guest Lecturer:
EDOL 714: Organizational Behavior Theory & Design
EDOL 755: E-Learning: Theory & Practice
PGLC 734: Adv. Multivariate

Other Professional related and University Experience

Academic In-Service
Dixie State University
University Service
Provide service as needed as diversity chair for open HR searches
Provide service with university taskforce for diversity and inclusion initiatives
Chair and implement BUS 1050: Foundations of Business committee for UHCB
Chair and implement Women in Business Club for undergraduate women at UHCB
Presentations within UHCB courses on management, organizational leadership, and global change
Founding member of Utah Women in Higher Education Network (UWHEN)
Founding member of Business Revision of Academic Curriculum committee (2019-20)

Business Consulting
Zest Chargrill: Abbotsford, AUS
Consultant **Sept 2018-Dec 2018**
Consulted Zest on management and global leadership development plan and strategy

American Red Cross
Consultant **May 2017**
Consulted ARC on Field Based Management Strategy and Change and digital uses for employee training and engagement

Musicians Institute
Consultant **Aug 2016-Dec 2016**
Consulted MI on International Student engagement and sustainability factors and student service restructuring and strategy

Other Academic Service

Academy of Management
Proposal Reviewer **2018 - Present**
Provide as needed to review proposals for journal articles and conference presentations

National Resource Center for The First-Year Experience® & Students in Transition
Proposal Reviewer **2014 - Present**
Provide as needed to review proposals for journal articles and conference presentations

NACADA
Proposal Reviewer **2014 - Present**
Provide as needed to review proposals for journal articles and conference presentations

Conference Attendance

AOM and AOM TLC, Boston, MA, 2019 (Presenter)
UCLA CC2PHD Conference, Los Angeles, CA 2018 (Presenter)
SAM International Conference, Washington, DC, 2018 (Presenter)
ICGL, Belize, 2017 (Presenter)
DSU TLC Conferences, 2015, 2016 (Presenter), 2017, 2018
Women in Higher Education Leadership Summit (WHELS), University of San Diego, July 2016
First Year Experience 32nd Annual Conference, February 2013
UWHEN Winter Conference, October 2013
UBAAN Conferences, Spring 2014 (Site Coordinator), Fall 2014, Spring 2015 (Site Coordinator, Presenter), Fall 2015
UAA Conferences, Spring 2014, Spring 2015 (Presenter)
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Other Research Activity & Service

DSU Strategic Planning, Goal 4-Diversity Task Force member
DSU Strategic Planning, Goal 4, Strategy 2 Chair
"Business CIS Courses", State collaborative research under direction of Utah Board of Regents, Chair of Research Committee, Fall 2014
"Advisement models for Business Schools", in collaboration with Nicole Rintamaki at the University of Utah

"Accepted: Now what? Transitions for those accepted into application-based majors and transitions from graduation to career", Udvar-Hazy College of Business, Summer 2015, possible grant funding initiatives
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Utah Advising Association (UAA), Member; Utah Business Academic Advisor Network (UBAAN), Executive Committee Member, Vice-Chair
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ABSTRACT

This research focused on global leadership and change and competitive athletics. Servant leadership, including the five servant leadership variables; altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship, as well coach athlete relationships, including the three coach-athlete relationship variables; closeness, commitment, and complementarity, were used to analyze athlete perceptions. This study then found correlations of the associated factors to outcome, at team and individual levels. Findings from this study include recognizing the commitment of the head coach as a factor in team wins; individual athlete perception of closeness as related to games started; the emotional healing aspects from the head coach to overall team wins; wisdom of the head coach to how many games the individual athlete played; and the differences between each team as related to individual or team outcome. Conclusions focused on how a head coach values the individual as well as the athlete; how a head coach can impact individual athlete success and be relied upon in times of need; and how high functioning teams strive for perfection across genders and various sports. This study also highlights several recommendations focused on policy and practice within competitive athletics and global transfer.

Keywords: Servant Leadership, Competitive Athletics, Global Leadership, Coach-Athlete Relationships

Chapter 1: Introduction

Chapter Overview

Chapter 1 offers an overview of the background of the study related to global leadership and change and competitive athletics, problem statement, purpose of the study, research questions, hypotheses, theoretical perspectives, conceptual framework, and theoretical frameworks. The frameworks are supported with diagrams and narratives. Chapter 1 concludes with the significance of the study, limitations of the study, key assumptions, definition of terms, and a chapter summary.

Background of the Study

Competitive athletics, as a topic within the discipline of global leadership and change, is important to the researcher because of the majority of work done within the competitive athletic space. The researcher has had a variety of experiences and career opportunities related to competitive athletes in collegiate and professional levels, within business redesign and organizational behavior, career-related preparation, and assisting with transitions into corporate structures. The researcher has more than twenty years of experience working with competitive athletes within collegiate settings, assisting with transitions to professional levels of play, and launching into career and professional networks. Within these sectors, major components, or themes, such as head coach leadership, head coach vision, team buy-in, team trust, and performance focused on how leveraging success on the field and then have a successful transition into the corporate structure (Kotschwar & Stahler, 2016; MacIntosh & Burton, 2018; Ridinger & Pastore, 2019; Schull, 2017).

Global leadership is a topic studied among top scholars and has primarily been completed through quantitative assessment tools (Mendenhall, 2018) within management and business

(Mendenhall, 2018; Toyne & Nigh, 1997) focused on tasks, behaviors, competencies, and skills (Osland, Li, & Wang, 2014). Many researchers are well versed in the discipline of global leadership, but few have been able to research in depth or connect other disciplines outside of business because of the relative newness of the field (Mendenhall, 2018). Global leadership could be found in many areas of the world if researchers took a more expanded view of where they could find global leadership organizations and people who lead global teams or types of teams found throughout the world (Osland, 2018b). Even though surveys and tests can facilitate accurate quantitative assessment, including other methods could expand our knowledge in global leadership in important ways. According to Osland (2018a), "the behavioral approach in global leadership research is just beginning" (p. 100).

Global leadership researchers are currently presented with an excellent opportunity, a kairotic moment, to contribute to a new field with relatively little competition in multiple areas outside of business. Since relatively little literature exists within global leadership and change as related to competitive athletics, one can confidently assume there is also limited research within the space of global leadership, competitive athletics, and management principles in applying behavior based quantitative assessments within the field. A quantitative approach based upon perception by way of adapted quantitative surveys and historical statistics is an interesting and adaptable way to do more research and add value to the literature. Competitive sport offers multiple opportunities because of the access and cleanliness of historical data sets across multiple countries, demographics, levels of competition, and sports and the interplay between multiple factors.

When the researcher studied global leadership and change at the level of competencies, behaviors, and applications within the corporate setting, questions related to application across

the world of athletics emerged. Within the competitive athletic landscape, several components, similar to the corporate setting, include comparisons to business with the internal workings of competitive athletics, at both the professional and collegiate level. Because of experience in both settings, the researcher has a significant understanding of how to relate competitive athletics and global leadership and change while still staying true to the landscapes of both areas.

Questions related to whether a topic or study is part of a research agenda related to global leadership and change landscape, as described and outlined by Mendenhall and Reiche (2018) and Reiche, Bird, Mendenhall, and Osland (2017) and adapted for the study, as seen in the researchers Table 1 below, are related to task complexity, relationship complexity, and global requirements. The questions related to whether or not a topic is of relevance within this landscape depends on whether there is a global requirement for typology in process and actions where both internal and external partners are from multiple areas, cultures, or jurisdictions (Mendenhall & Reiche, 2018). The statements infer that researchers ensure the sample and population are not monolithic within the culture, community, area, or demographic. Another question for the research is whether or not there is an ability to show task complexity; which could be related to accomplishing many tasks in a short amount of time. Some of the global leadership tasks include ambiguity, variety, constant change, and gaining knowledge through experience. A third question relates to the extent of relationship complexity and whether or not this is being demonstrated within the research or sample. Some examples are working with cultures outside of self, sub-cultures, variety in working with multiple stakeholders, and learning to adapt and change. Based upon these questions, the research for this study, as related to global leadership and change within competitive athletics, can be answered with multiple examples. The focus of the study will be the on specific variables of closeness, commitment,

complementarity (Jowett, 2009a), altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship (Barbuto & Wheeler, 2006), correlated to performance and outcome attainment.

Table 1

Typology in Global Leadership & Competitive Athletics

Typology	Global Leadership	Competitive Athletics
Task Complexity (Mendenhall, & Reiche, 2018)	Ambiguity, variety, constant change, gaining knowledge (Reiche et al., 2017)	Different plays, players, levels of knowledge and training, constant change, immediate changes dependent on others, team mentality of gaining knowledge base for every game and within timeframes (Cruickshank, & Collins, 2012; Fuller, 2014; Kelly, & Dixon, 2014)
Relationship Complexity (Mendenhall, & Reiche, 2018)	Code switching, differing social and cultural norms, interdependence (Reiche et al., 2017)	Different internal norms, team norms, player norms, coach norms, administrator norms, working together to accomplish goals, differing 'languages' within sport, dependent on one another for success (Gould, Greenleaf, Guinan, & Chung, 2002; Hackman, & Wageman, 2005; Kim, Oh, Lee, & Andrew, 2019)
Global Requirement (Mendenhall, & Reiche, 2018)	Working with internal and external ranges of multiple cultures, areas, jurisdictions, demographics (Reiche et al., 2017)	Various cultures across the world, various sub-cultures from demographic, physical preparation, training, location, expectations, governing bodies (NCAA DI, DII, DIII, NAIA; Greenspan, Whitcomb, & Griffith, 2019; Jones, A.C., Kruptizer, Watts, & McCrory, 2019; Kaufman, & Wolff, 2010)

If opportunities do not currently exist, specifically for studying global leaders while they are in action, athletics could be an area to include action research components to assess global leaders; using the athletic playing field could be a major opportunity in an academic and/or research space. The current research within global leadership focuses on the accepted overall competencies individuals should have (Osland, 2018a), but further research could be focused on in action habits, competencies, and behaviors. Researching these components during an event, when related to an outcome or charted benefit, could prove successful and aid in further understanding competencies and leadership aspects that demonstrate adequate preparation for leading a global company or to become a global leader (Osland, 2018b).

There is much extent literature and validated instruments regarding characteristics and competencies of individuals (Osland, 2018a). The concept of and an opportunity to research perceived servant leadership competencies exists in using the Servant Leadership Questionnaire (SLQ; Barbuto, & Wheeler, 2006). The concept of and an opportunity to research perceived relationship competencies specific to closeness, commitment, and complementarity in sport (3C's) exists in using the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett, 2009a). Further, impact on both team and individual outcome attainment can be examined in many competitive athletic settings and spaces. Considering this type of research, can be done in many competitive athletic spaces and settings and then be considered for global leadership by knowledge transfer (Da Silva & Las Casas, 2017; Ettekal, Burkard, Ferris, Moore, & Lerner, 2018).

Competitive athletics is found throughout the world in various cultures (Beer & Nohria, 2000; Cousens & Slack, 2005; Lyras, 2008; Memon, Ghouri, Jalbani, & Quereshi, 2011), economic structures (Burnett, & Uys, 2000; Lyras, 2008), and democratic communities (Adcroft,

& Teckman, 2008; Lyras, 2008). Since competitive athletics has multiple areas of influence across the world (Lyras, 2008; Slack & Hinings, 1992), there is ample opportunity to study global leadership and change. Within sport, an investigation into certain leadership styles (Pratt, & Eitzen, 1989). Contrasting leadership styles and organizational effectiveness: The case of athletic teams (Zhang, Beattie, Pitkethly, & Dempsey, 2019) and the observable or assessed behaviors of those leaders and followers in action is an area to consider within global leadership and change research. Competitive athletics constantly changes (Burton & Welty Peachey, 2013) and adapts (Lemyre, Treasure, & Roberts, 2006; Taylor & Ogilvie, 1994) to environmental effects such as transition out of athletics (Fuller, 2014) and social pressures (Adie & Jowett, 2010; Murathan, 2019) within multiple countries and cultures (Aoyagi, Cox, & McGuire, 2008; Şahin, 2018).

Multiple behavior-based topics can extend this primary research in global leadership and competitive athletics. Areas of study include player interaction, which could be tied to global corporate teams; injury, which could be linked to abrupt changes in management and environment or the role of ambiguity and change. Furthermore, changes in coaching staff could be tied to response to change and recruiting and retention strategy, which could be related to relationships and human resources within global corporate cultures (Wooten JR, 1994). In Global Leadership: Research, Practice, and Development, states little research exists outside of quantitative studies and much more should be done on behaviors (Osland, 2018a).

Problem Statement

In the context of the United States, there is limited literature on competitive athlete servant leadership perceptions of coaches as related to outcome attainment and competitive athlete success related to commitment, closeness, and cooperation. For instance, limited data

exists for competition before and after major changes in programing and changes within divisions. A few studies have replicated results in some aspects related to the CART-Q (Jowett, 2009a) in various countries such as Kuwait (Ahmad, 2014), Belgium, China, Greece, Spain, the United States and Sweden (Yang & Jowett, 2012) across several sports and divisions of sport. Proposed research will focus on outcomes during intense levels of competition related to individual perceptions and the impact on team within the field of sport at a Division II institution within the United States across eight team sports.

In global leadership, there is limited amounts of behavioral based literature linked with quantifiable outcomes being done in the competitive athletic arena. In addition, limited data exists on the perceived servant leadership of a coach and outcome attainment as related to global leadership and change during levels of competition (Burton & Welty Peachey, 2013; Burton, Peachey & Wells, 2017). Therefore, an opportunity exists for research to be collected within the competitive athletic arena. Competitive athletics has a global reach and impact (Miller, Lawrence, McKay, & Rowe, 2001) within many areas such as economics (Schnitzer & Barth, 2019; Vamplew, 2018; Watanabe, Yan, Soebbing, & Fu, 2019; Whitley, 2019), human rights (Caudwell & McGee, 2018; Hums & Hancock, 2017; Lemmon, 2019; Schwab, 2018; Turner et al., 2019), leadership and training (Burton & Leberman, 2017; Burton, Peachey, & Wells, 2017; Jowett & Arthur, 2019; Schull, 2017), and other such aspects as related to business (Da Silva & Las Casas, 2017; Garner, Humphrey, & Simkins, 2016; Ridinger & Pastore, 2019; Wagner, Storm, & Nielsen, 2016), and organizational behavior (Love & Kim, 2019; Macintosh & Burton, 2018; Skinner & Stewart, 2017; Swanson & Kent, 2016).

Since global leadership research is a relatively new field, many aspects can be examined through research surrounding global leadership characteristics, behaviors, and application, could

be done within the competitive athlete and competitive sport arena. Global leadership traits can differ from team to team but could also differ between winning teams and losing teams. Distinct leadership traits may be present within a competitive athletics team and within certain dynamics of that team such as coaching staff, administration, support staff, and players. Since competitive athletics transcends country boundaries (Pratt & Eitzen, 1989; Raysmith, Jacobsson, Drew, & Timpka, 2019; Ronkainen, Ryba, Tonge, & Tikkanen, 2019) existing literature can be extended to surrounding global leadership.

Research focused on linking historical statistics with behavioral assessments is another opportunity to define a new area of global leadership and change. It also affords further opportunities within the field of management and change, organizational behavior, sport leadership, and global leadership and change. Limited data has been collected on the competencies for servant leadership which can also be found within global leadership during intense levels of competition related to outcome attainment at the team or individual level. The ability to observe changes occurring on the playing field is an opportunity for research to be collected and new theories and frameworks to be made.

Purpose Statement

The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

Significance of the Study

The significance of the study is to increase the scholarly work within the field of global leadership and change specific to characteristics, behaviors, and competencies in the competitive athletic arena. The significance of this study is important as a global workforce is entering corporate settings and global leadership research is relatively new and is emerging in multiple

disciplines. As competitive sport is found as a type of constant within varying areas and communities on a global scale, looking at coaches as managers can help with implementation with corporate managers and leaders understand how different leadership styles can affect this newest generation (Cruickshank & Collins, 2012; Gibson & Zellmer-Bruhn, 2001). Not only is there a push to toward multiple modalities in research methods but there is also an opportunity to contribute to the area specific to sport focused on global leadership competencies (Osland, 2018a). The research will benefit those managing global change organizations, working with diverse individuals, creating teams with multiple perspectives, and working with constant change. Limited research in global leadership within sport provides an opportunity to contribute to the literature and within competitive sport.

Improvement and change as an inherent constant are found in both competitive sport and in global leadership and change (McNutt & Wright, 1995; Meân & Halone, 2010; Ridinger & Pastore, 2019). Since competitive sport has normative events, meaning, and rules on a global scale, investigating coaches as managers may assist with implementation with global corporate managers. The main significance of this study is to investigate how servant leadership competencies, as related to the 3C's of competitive sport, are connected to positive performance and outcome attainment at the team and individual level within competitive athletics at the team sport level. Focusing on the 3C's could be found in competitive sport, both during competition and outside of competition. In athletics, uncertainty and ambiguity are at a continual and constant high along with the need for change. For team sport, teams are constantly changing and reacting within the team dynamic, athletes and coaches, and within each individual.

There is also limited literature on trust within athletic teams and the focus on individuals in relation to closeness, commitment, and complementarity (3C's, Jowett & Chaundy, 2004;

Jowett et al., 2017) with adding overall team outcome and individual outcome. Global leaders can assess areas within sport as opportunities to understand how to initiate leadership competencies and be a leader in non-normative roles within various areas of the world (Aoyagi, Cox, & McGuire, 2008). When researching servant leadership there are new avenues to pursue within the framework of competitive athletics. Limited research exists that links positive outcome attainment to leadership styles specific to the 3 C's in competitive athletics focused on the impact of further research to compare various team sports in other parts of the world, such as the United States, and in various competitive levels (Fehr, 2017), such as in collegiate athletics (Jowett, 2009b; Jowett & Chaundy, 2004).

The relatedness of the study to business application stems from management and organizational behavior and is found within the field of competitive sport and aspects of corporate change (Hwang, 2019) and adaptability (Chen & Chen, 2018; Gross et al., 2017). Focusing on the outcomes of each athlete and team specifically during competition is related to the aspects of high stress and changing systems (Demirel, 2016; Whitsell & Naquin, 2016) within business during corporate change and reorganization of systems (Beer & Nohria, 2000; Walker & Misawa, 2018). These areas of sport during competition are critical to research as one cannot replicate two differing sides, within a high-level competitive aspect, with an unknown number of possible outcomes, within a research setting. By researching in this context, which could be looked at as chaos, one can bring multiple aspects and levels of understanding by viewing the inner workings of coaches, teams, and individual athletes and then comparing the environment to a corporate setting.

The increasing number of live competitive sporting events being televised and streamed, affords researchers the opportunity to observe events are prepared but not controlled. As a result,

an abundance of statistically rich data is available. The significant ideas and applications found from the study relate to extending knowledge of the role of competitive athletics within a global leadership context and creating awareness for sport organizations to recognize the effect competitive athletics has on global leadership and change. Also, research may bridge the gap between organizational behavior principles and the practice of managing competitive sport.

Extending research within domestic (United States) sport may be applied globally from the demographic and reach of competitive teams. Competitive professional and athletic teams, across all levels, comprise many individuals from diverse backgrounds and countries (Druckman, Howat, & Rothschild, 2019; Jones et al., 2019). Within collegiate sport in the United States there is great depth of individuals, both at the coach and player level, with global reach or diverse backgrounds and experiences. According to the National Collegiate Athletic Association (NCAA) in 2018 there were more than 20,000 international student-athletes from 182 countries a few countries represented by NCAA Student Athletes across 29 sports within the Division I and II conferences, were Angola, Belgium, Chile, Brazil, China, and the Dominican Republic (NCAA, 2018). Within DII athletics in the United States, the demographics of the coaching staff are not as diverse as the players they manage. For example, the two primary leaders of a sport team, head coach (HC) and assistant coach (AC), are designated as White, with HC 82% and AC 70% respectively (NCAA, 2018). This data indicates there are significant amounts of global members on diverse teams but are not lead by the most diverse individuals which could indicate another area of study within both fields of competitive sport and global leadership.

Definition of Terms

- *Administrators*: Corporate level status in athletics (NCAA, 2020). Administrators are rarely coaches and generally do not interact with players other than within business

practices or contract negotiation. Positions are typically college presidents, athletics directors, faculty athletics representatives, compliance officers, academic support staff, sport information directors, and health and safety personnel. Administrators may also be referred to as Front Office.

- *Athletics or Sport*: These terms may encompass an entire team from administration down to players (Researcher definition). These include professional, collegiate, or high-level competition in sport. They may be referred to as individuals or team.
- *Coaches*: Those who develop and prepare student-athletes on and off the field (NCAA, 2020).
- *Complementarity*: An interactive process between two or more individuals that promotes teamwork, mutual support, and cooperation by working with one another and improving overall performance (Jowett, 2009a, b, c). The belief in the coach and the athlete to do what they should in relation to winning and doing well. There is trust and belief that each will be doing the best for the team.
- *Conferences*: Within the NCAA, several individual teams come together and compete within individual conferences (NCAA, 2020). These conferences compete at the national level, having championships. Conferences can be split between location, division, or other factors.
- *Division*: Within the NCAA, there are several divisions: Division I (DI), Division II (DII), Division III (DIII), or Junior College (JUCO) level of play (NCAA, 2020). Divisions vary dependent on several factors including amount of funding at the college level, amount of sports at the college, and several other factors. See NCAA for further information.

- *Fall*: Generally, the time period between May-December (Researcher definition).
- *Game day*: The day of the competition (Researcher definition).
- *National Collegiate Athletic Association (NCAA):* A nonprofit organization that regulates student athletes from 1,268 North American institutions and conferences (NCAA, 2020). See Division for designations.
- *Post-Season*: When an athlete or team competes in a championship or post-season play because of a win-loss record is better or the best in the conference or division. The team may elect to play in a tournament or post-season championship against other divisions or conferences (Bojke, 2007).
- *Season*: The time period in which the team or athlete is competing. Wins and losses during this period are a driving factor toward an end goal or championship (NCAA, 2000). Statistics garnered from these competitions are tracked and published publicly.
- *Spring*: Generally, the time between January-May (Researcher definition).
- *Student Athlete (SA):* A student who participates in competitive athletics at the collegiate level (NCAA, 2000). The collegiate SA has certain criteria established by the NCAA from which to adhere to play or stay eligible to participate completely.

Research Questions

The overarching question that guides this study is:

RQ: To what extent, if at all, do coach-student athlete relationships present as associated factors in individual and team performance?

The sub-questions that guide this study are:

SQ1: To what extent, if at all, do three aspects of the coach-athlete relationship (3C)-closeness, commitment, and complementarity- present as associated factors in individual performance and team performance?

SQ2: To what extent, if at all, do five aspects of head coach servant leadership-altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship- present as associated factors in individual performance and team performance?

SQ3: To what extent, if at all, does the NCAA identified sport of the athlete present as an associated factor in individual performance and team performance?

Hypotheses

The hypotheses of this study within a NCAA DII athletics program are:

H_{a1}: It is hypothesized there will be a positive correlation with three aspects of perceived coach-athlete relationship to outcome, at team and individual levels.

H_{01}: It is hypothesized there will be a negative correlation with coach-athlete relationship to outcome, at team and individual levels.

H_{a2}: It is hypothesized there will be a positive correlation with five aspects of perceived head coach servant leadership and performance to outcome, at team and individual levels.

H_{02}: It is hypothesized there will be a negative correlation with five aspects of perceived head coach servant leadership and performance to outcome, at team and individual levels.

H_{a3}: It is hypothesized there will be a no correlation between sport of athlete to outcome at team and individual levels.

H_{03}: It is hypothesized there will be a positive or negative correlation between sport of athlete to outcome, at team and individual levels.

Regarding Table 2, the first hypothesis, H_{a1}, the predictor variable of the three aspects of the coach-athlete relationship will be measured using the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett, 2009a), which yields a measurement at the interval level and the outcome variable outcome attainment at team and individual levels, will be reported using historical statistics at the nominal level of measurement. The second hypothesis, H_{a2}, the predictor variable of head coach servant leadership will be measured using the Servant Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006) at the interval level of measurement and the outcome variable, outcome attainment at team and individual levels, will be reported using historical statistics at the nominal level of measurement. The third hypothesis, $H_{a3,}$ the predictor variable of sport of the athlete will be measured by self-report and be at the nominal level, the outcome variable, outcome attainment at team and individual levels, will be reported using historical statistics at the nominal level of measure.

Table 2

Research Hypotheses and Outcome

Alternative Hypothesis	Variable Name	Variable Type	Measure Name	Level of Measurement
H_{a1}: It is hypothesized there will be a positive correlation with three aspects of coach-athlete relationship to outcome, at team and individual levels.	1a. Coach-Athlete Relationship Questionnaire (3 variables)	1a. Predictor	1a. Coach-Athlete Relationship Questionnaire-Metaperspective Version (CART-Q; Jowett, 2009a)	1a. Interval
	1b. Team Outcome	1b. Outcome	1b. Historical Team Statistics (wins: losses; post-season play)	1b. Nominal
	1c. Individual Outcome	1c. Outcome	1c. Historical Individual Statistics (A/S)	1c. Nominal

(continued)

Alternative Hypothesis	Variable Name	Variable Type	Measure Name	Level of Measurement
H_{a2}: It is hypothesized there will be a positive correlation with five aspects of perceived head coach servant leadership and performance to outcome, at team and individual levels.	2a. Head Coach Servant Leadership (5 variables)	2a. Predictor	2a. Servant Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006)	2a. Interval
	2b. Team Outcome	2b. Outcome	2b. Historical Team Statistics (wins: losses; post-season play)	2b. Nominal
	2c. Individual Outcome	2c. Outcome	2c. Historical Individual Statistics (appearances & starts)	2c. Nominal
H_{a3}: It is hypothesized there will be a no correlation between sport of athlete to outcome at team and individual levels.	3a. Reported Sport of Athlete	3a. Predictor	3a. Self-Reported Demographic	3a. Interval
	3b. Team Outcome	3b. Outcome	3b. Historical Team Statistics (wins: losses; post-season play)	3b. Nominal
	3c. Individual Outcome	3c. Outcome	3c. Historical Individual Statistics (appearances & starts)	3c. Nominal

Limitations

There are several limitations to the proposed study. First is the limitation of availability of student-athletes and known leadership styles of coaching staffs as interpreted from the athletes. Another limitation is theories or philosophies related to coaching and how they apply those within the team and individually. The study could also be limited by the administration, coach,

and athlete perceptions of not only the researcher but of the value of the research and possible impact within the field of competitive athletics and teams.

The timing of data collection may be a limitation within the study. If the athletes are in the season of competition or out of the season, in either pre- or post- season, results could be affected by how or if the athletes could complete the assessment. The timeframe is a limitation in that the spring semester has multiple semester breaks, a transition to recruiting, transferring, and graduation timelines which could take focus away from the timeliness of the study. Those athletes who did not play the entire season, because of injury, change in team dynamic, change in plays, change in attitude and impact, or multiple factors, could also affect the overall outcome of the study of linking the assessment to outcome attainment.

The time of the study and when IRB approval at both institutions will be approved may affect the study and when it can be carried out. This will affect the availability of coaches and athletes and their outcome or season records. The timeframe will also affect the quality and quantity of the athletes. The timing could also have an impact because of the sports schedule, post-season play, and when the athletes will be available because of finals and spring sport timelines. The win-loss record could also be a factor of when and if the researcher can have access to athlete records published publicly. Since an assessment of the coach is the primary method of research, data is limited to those who respond and finish the survey and could also be skewed because of interactions with the coach before the study was timed. A limitation of choosing the phenomenology of using historical statistics and perception-based behavior surveys within competitive athletics as related to teams while under stress and ambiguity, because of post-season play or after the season has been played, could also have an impact. Each athlete will

interact differently with the coaches and with one another throughout the season and pre- or post-season play so could skew results within the servant leadership questionnaire.

Limitations of the study are also relative to platform availability and access to statistical data sets on the public site. The platforms used to access the data and how to clean and supply the data within an open-source site could be limited. The assumption of the researcher is that all platforms will be up and running and available to access.

Delimitations

The delimitations of the study include various items such as timeframe, access to sports teams, and data collected on the historical side. The optimum chosen time frame, dependent upon IRB approval, will be during the Spring 2020 practice and competition season Spring of 2020 semester. The access to the population will be focused on within the competitive student-athletes on team sports on a collegiate campus which functions under the NCAA Division II regulations. Some teams will be finished with their season, some during the season, and others may be just starting their season or post-season play. There may be some student-athletes who have left the institution because of multiple factors including transfers, releases, quitting, injury, or mid-year graduation timelines. The actual timeframe of the study will depend on the IRB approval and preliminary defense timelines.

Bounding of the study will happen by focusing on the team sports at the NCAA Division II campus and within the varsity level of competition found on the campus where the research will be conducted. The sports teams will have a 50:50 split between the number of women's and men's teams participating in the study but not in number of individuals, see Table 3. Women's teams include softball, soccer, volleyball, and basketball. Men's teams include baseball, soccer, basketball, and football. Not every sport will have an equal counterpart represented on each side

based on NCAA defined sport teams separated by female and male gender. The number of athletes in each sport varies as well, see Table 3. The total of those who are involved with teams during the study can vary but at the time of writing this proposal the total of number of women student-athletes is *n*= 90 and are distributed as such: 22 in softball, 35 in soccer, 14 in basketball, and 19 volleyball. The total number of male of student-athletes is *n*= 190 and are distributed as such: 40 in baseball, 31 in soccer, 16 in basketball, and 103 in football. The similar sports found to have female-to-male counterparts are softball-to-baseball, women's soccer-to-men's soccer, and women's basketball-to-men's basketball. The only sports which do not have equivalent sports in either side are volleyball and football. Football has the largest team members, at *n*= 103 members, but also the largest amount of possible interactions, multiple coaches and position coaches, and limited amounts of play per player.

Table 3

Participant Break Down

Female Sport	Number of SA	Male Sport	Number of SA
Softball	22	Baseball	40
Soccer	35	Soccer	31
Basketball	14	Basketball	16
Volleyball	19	Football	103
Total SA Female	90	Total SA Male	190

The target of the research will be completed at a collegiate campus of approximately *N*= 408 student-athletes, which includes the *n*= 280 within team sports, in the southwest region of the United States. The sample size will be drawn from the *n*= 280, and response rate will vary on student-athletes availability and historical statistics at the time of data collection. Although the objective is to accumulate all student-athlete responses the rate may be less because of season of

play and a focus on only team sports. This will be discussed further in Chapter 3: Research Methodology under the heading Sample Population.

Assumptions

Some of the key assumptions, considering the sample population of collegiate athletes, will be concerning the background or experiences athletes have had with multiple coaches in order to draw conclusions to complete the surveys. The assumption that the athlete has also competed within the season is also made as all athletes will be given access to the survey. Other assumptions include the head coach leadership capacity in managing large teams and having been able to have had multiple interactions with all the athletes on the team. A key assumption is that the participants and those collecting and publishing the statistics will be truthful in their responses and will not be based on previous seasons, interactions with either current or previous coaching staff, or on previous outcomes individually and as a team. The assumption is that the responses will be regarding the current season of play.

Positionality

To avoid bias research will be collected in the following manner:

- Distribution of two externally validated, reliable, and well published survey instruments;
- Distribution of scripted demographical questions;
- Use of an online platform to collect survey data;
- Published team and individual statistics.

Possible bias would have been if the researcher collected and distributed the survey in person or collected the historical statistics on their own. Since the researcher can use well published surveys and download the database of statistics on outcome, which is collected by a third-party

professional staff member and generalized for the NCAA reporting agency as to be uploaded to the publicly accessed site, the bias on tracking correct and generalized data has been taken away.

Since the researcher has not had a time where competitive athletics and teams were not part of an everyday normal occurrence or interaction there will be a challenge for limiting bias but will only add to the value of the study. The passion the researcher has within global leadership and competitive athletics because of the years on the playing field and professional aspects of working with collegiate athletes could enhance the possibilities only of what can occur after the study. Again, the bias of what to ask and how has been eliminated by using two quantitative survey questionnaires through multiple validation and research projects. Since the researcher is using established surveys the bias is not within the asking of the questions and should not be present in the results. The researcher may have some inherent bias from previous relationships with the population in the study, as the researcher has worked with many of the athletic teams and coaches.

Organization of the Study

This research study comprises five chapters, but only three will be discussed for preliminary defense. The chapters will follow the following format:

- Chapter 1: Introduction of competitive athletics and the link to global leadership in relation to perceptions of a coach and his, her, or they servant leadership and the outcome attainment via historical statistics of both individual and team.
- Chapter 2: Review of literature will focus on research being done in competitive athletics, leadership in athletics, global leadership, and management competencies, and gaps in the research.

- Chapter 3: Methodology and design of the study will be discussed and will go into detail about population and methods used.
- Chapter 4: Presentation of findings.
- Chapter 5: Discussion of findings.

Chapter Summary

Chapter 1 overviewed the background of the study, problem statement, purpose of the study, research questions, hypotheses, significance of the study, theoretical and conceptual frameworks, limitations of the study, delimitations of the study, key assumptions, positionality, and definition of terms. Within this chapter a focus on the background and how competitive athletics is related to global leadership and change was also discussed. Within the chapter several components related to the reasoning behind tying global leadership and competitive athletics together were discussed. . In the next chapter, Chapter 2, the review of literature will be given.

Chapter 2: Literature Review

Chapter Overview

Chapter 2 will overview the context of the study, restating the purpose of the study, research questions, and hypotheses. The chapter will also focus on conceptual framework as related to the review of literature regarding global leadership and sport. The conceptual framework is broken into five overarching themes including global leadership and sport, leadership styles and several theories, coaching styles, continual improvement and change, and mentoring aspects. A visual representation of the conceptual framework is also given. The gaps and inconsistencies of the literature and the relevance of the study will be given at end the chapter.

Context

The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

The overarching question that guides this study is:

RQ: To what extent, if at all, do coach-student athlete relationships present as associated factors in individual and team performance?

The hypotheses for the study are related to the perception of head coach leadership and the coach-athlete relationship and how these could predict success both individually and as a team. The research will also highlight the differences or similarities regarding differences in sport across two demographics as designated by the NCAA. The value of relationships and trust among the team and the coaching staff is a highlight of the research within a collegiate setting. The hypotheses are highlighted in greater detail in Chapter 1.

Conceptual Framework

The conceptual framework for the study relates to the research within multiple disciplines across research, academic, and professional spaces. The areas influencing this research and literature review are found within global leadership, management and sport, sport psychology, business, sociology, coaching and team development, and leadership. In the conceptual framework, seen below in Figure 1 below, the variables found within the literature surrounding global leadership and change and competitive athletics is highlighted. The main topics within the literature focus on five areas including; global leadership & sport, leadership, coaching, continual improvement, and mentoring. Each area will be highlighted below and discussed within the literature review within this chapter.

Since the researcher is exploring an area of research not yet tied or integrated to global leadership and change there are many pioneers and disciplines of research being highlighted within the conceptual framework. Global leadership and sport is the main area of research which this study could fall under within a subset of the main discipline of global leadership and change and is represented as the main piece of a puzzle which could be found within the discipline. Leadership and coaching have been researched in other areas of literature across multiple disciplines and are being focused on within the figure as outside of the main area of the puzzle piece. This is done as to see the two topics could stand on their own but within the field of global leadership and sport should be part of the figure but still given merit as an outside collaborative piece to recognize the work done in other disciplines. Although the topics, mentoring and continual improvement, are studied within global leadership and change the two have not been integrated together within global leadership and sport. Mentoring and continual improvement are dimensions found within global leadership literature and research within other topics and are

represented as part of the puzzle piece already implemented within the main area of global leadership and sport because of the tie to the primary research done in global leadership and change.

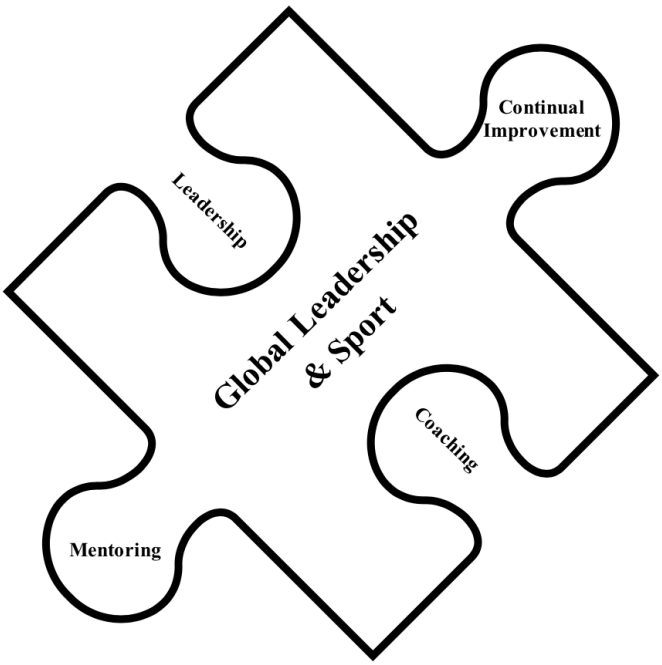

Figure 1. Conceptual framework

- Global Leadership & Sport: Within the literature global leadership aspects such as culture and global behaviors were found throughout many disciplines and especially through sport research. The highlight of how these aspects of global leadership and sport are a foundation to the research within competitive athletic spaces and within the global context of sport are important to highlight.
- Leadership: Various pieces of literature and research are found in relation to leadership and focus will be on the team leadership model, servant leadership, and leader-member

exchange. Each area will focus on the primary objective and the application within the competitive athletic space.

- Coaching: A focus on coaching found throughout the world and within the field of global sport will be highlighted. Path-goal theory, team leadership, internal and external leadership areas and the interaction within the coach and team will be highlighted. A focus on differing teams and needs will also be highlighted.
- Mentoring: The aspect of mentoring as in relation to sport and global leadership will be focused on relationships, trust, and harmful and helpful mentors. The focus on mentors within teams and within the global perspective will also be highlighted.
- Continual Improvement: The factors of global leadership in sport and within the framework of continual improvement and the outlook of change relative to characteristics of behaviors and traits, sport behaviors, and the crossover of sport to business in relation to behavior and continual improvement will be focused on. Each area has overlapping language and application but can be applied to different areas of business or organizational behavior.

Global Leadership and Sport

Research in global leadership has mostly been done in management and specifically by international management scholars (Osland, 2018a). The focus of much of the present research has been in understanding the wide varieties and contexts of a global workforce and the challenges which come about with leading such a company or team of individuals (Osland, 2018b). Global leadership and sport is an interdisciplinary field of research and theories founded on common principles and expertise from early research within international business focused on culture and relationships (Mendenhall, 2018; Toyne & Nigh, 1997). Within the global leadership

lens there are areas focused on teams and the ability for high functioning teams changing and succeeding in a multitude of environments (Maznevski & Chui, 2012). Research and theories based on teams specifically in global leadership comprise members who each have knowledge or skills which can overlap one another to create success (Somech & Drach-Zahavy, 2013).

Specific to collegiate sport there are multiple factors involved with academic and athletic success which does not happen in many other areas focused on leadership and expectations (Jones et al., 2019) within a collegiate setting (Czekanski & Turner, 2014). There are similar expectations for a global leader to navigate and succeed in multiple environments just as there is within collegiate athletics. The same expectations, high levels of elite competition, and perfect examples of outcome and expectation, in both the athletic arena and the academic spaces, is at a constant for competitive athletes at the collegiate levels (Dai, Dietvorst, Tuckfield, Milkman, & Schweitzer, 2018; Giacobbi Jr, Whitney, Roper, & Butryn, 2002). To play at the collegiate level athletes not only have to be some of the best in the sport but also need to do well in the classroom to receive the grades they need to be eligible. Passing classes with certain grade point averages, dependent on division, certain amounts of credits, and within a major able to be completed promptly all attribute to a successful collegiate athlete.

On top of needing high outcome attainment aligned with outside and inside expectations also there are competencies needed in collegiate competitive athletics which align with global leadership and change competencies. Global leadership competencies, related to service leadership, working with teams from different communities and backgrounds, commitment to something bigger than self, closeness within teams, and cooperating toward a greater goal can then be assessed in relation to competition, with the interactions and reciprocal interactions of the player to coaches, players, fans, campus, and community (Da Silva & Las Casas, 2017;

Hampson & Jowett, 2014; Jowett, 2009a, b, c; Miller et al., 2001). Team performance overall has been able to showcase gaps which then can be rectified with adding or recruiting new team members to add value to the overall makeup and fill the gaps to create a winning team (Kim et al., 2019). Interactions with fan bases or fan followings have also been showcased to show the ability for athletics and teams to create identity and loyalty across multiple levels showing the dynamic of a diverse community (Da Silva & Las Casas, 2017).

Although in global leadership and teams the focus is on a diverse team from many countries or backgrounds the success factors, tasks, objectives, and other dynamics can also be found in competitive collegiate sport (Meân & Halone, 2010; Sahin, 2018). Bringing a team of diverse individuals from various backgrounds, different training regimens, varying years of experience and opportunities, and constantly filling gaps within the team is a constant within competitive athletics (Kim et al., 2019). Most teams in the collegiate landscape may have only one or two individuals who have played with or against one another in previous competitions. For competitive athletics, constant change (Lyras, 2008), creativity (Katz, 2001), communication (Love & Kim, 2019), diversity (Meân & Halone, 2010; Sahin, 2018), and being connected to a greater purpose (Schwab, 2018) is found throughout not only the competitive season but through the entire year and is increasing with current trends of using competitive sport and athletes as influencers (Hazari, 2018). Influence from the collegiate athlete is shown within the United States and has been showcased among the NCAA as not only a way to market sport but to also drive interest for key events and championships (Vamplew, 2018; Walker & Misawa, 2018).

Competitive athletics encompasses a worldwide workforce and depending on sport can also involve worldwide fan bases (Dyreson, 2003; Gould, Greenleaf, Guinan, & Chung, 2002). In certain sports, even in the United States, there are not only athletes and staff members from

various countries but there are also leagues that span the globe (Meân & Halone, 2010). Not only can competitive athletics be part of a global culture, but aspects of global leadership behaviors can be studied during competition which deal with constant change alongside increased levels of ambiguity or during times of stress.

Sport has been used within multiple countries and settings to promote social justice and reform (Druckman, Howat, & Rothschild, 2019) political protests such as the United States Olympic athletes in 1968 and raised racial awareness (Bass, 2002), activism and social change (Kaufman & Wolff, 2010), and mobilizations and demonstrations for rights and campaigns for underrepresented individuals (Epstein & Kisska-Schulze, 2016). Sport has been effective and sometimes not so effective when mobilizing a great force in limited time using multiple modes of communication to drive student-athlete initiated causes (Epstein & Kisska-Schulze, 2016) and could be linked to the innate relationships to a greater community (Jowett, & Arthur, 2019) and internal roles and leadership styles (Jones et al., 2019) within the confines of a team. Global leadership and change is already through the aspect of competitive athletics at the national (Slack & Hinings, 1992) and global level (Dyreson, 2003; Memon, Ghouri, Jalbani, & Qureshi, 2011; Şahin, 2018) and has had a transitioning effect at the local level (Epstein & Kisska-Schulze, 2016).

Culture. Cultures within sport and the impact sport has on culture can be found throughout multiple areas of competition and throughout research found in sociology, psychology, sport, leadership, and management. When talking about culture and sport there can be many definitions of what culture consists of and can mean a diverse multicultural team to that of people sharing similar values and norms (Carpentier & Mageau, 2016; Cruickshank & Collins, 2012; Gupta, Huang, & Niranjan, 2010; Jones, G. J., Wegner, Bunds, Edwards, &

Boccaro, 2018; Zellmer-Bruhn, 2001). Set cultures are found within well-established winning teams and when new members are introduced within the set culture certain cultural components need to be understood (Cruickshank & Collins, 2012). These components are usually either already understood, adopted through teachings or mimicking elders, or taught dependent on prior experiences or the strength of the culture being adopted.

Culture in athletics can be a ground roots effort or come from the culture the coaches establish which can will still include the actual components of a diverse team; having shared values, dynamics, expectations, while also having ways the team interacts with one another on and off the field (Cruickshank & Collins, 2012; Dyreson, 2003; Gibson & Zellmer-Bruhn, 2001; Gillet, Vallerand, Amoura, & Baldes, 2010; Meân & Halone, 2010). There are high performing cultures established within certain subsets or tiers of athletic competition (Cruickshank & Collins, 2012) dependent on divisions or timeframes. For example, in professional sport and Olympic sport high performance indicators are shared among the group because of the elite-ness of the team and competition (Cruickshank & Collins, 2012). The timeframe also affects how the culture of team or the culture of competition is established and carried out. If during the pre-season cultural components such as adapting to changes, being emotionally resilient, being open to new people and dynamics, and having drive and initiative building (Bird, & Stevens, 2018). As with high-performing cultures and teams, competitive athletics also has the same premise including achieving optimal performance, there can be a variety of results within a longitudinal time frame, and there is an increase within performing individuals and teammates when both become better and are expected to perform at this elite level (Czekanski & Turner, 2014).

According to Dyreson (2003), sport is a new way for the global culture to have a universal language and harmonize around a single act or event. Sport can not only bring together

nations but can also bring together identities across the globe. Each sport has certain rituals, rules, governances, or commonalities understood across demographics, languages, and borders (Caudwell & McGee, 2018). Cultures within competitive athletics can increase social change and initiative building related to global change and diversity (Carter-Francique, Hart, & Cheeks, 2015). In research from Hwang (2019) when surveying college students and using sport to create identity, increase awareness to social responsibilities, and increasing responsibility with initiative building, the results showed using a particular team or team social consciousness was an important factor across multiple demographics and backgrounds. Using collegiate athletics to raise awareness for a social platform or a change initiative had a positive effect on the overall group of followers (Hwang, 2019). There were also links to how relationships among the teams and the community were able to not only identify as inclusive but also become part of a larger more diverse group (Bergmann Drewe, 2002). The ability for collegiate athletics to not only help with corporate social responsibility but also identifying needs and communicate those needs for those who are predominately at risk and underrepresented is important to recognize.

In sport, emotion and drive can help create a positive culture, shared values, and philosophies (Turner et al., 2019). Since sport is across multiple sociopolitical spaces and can cross boarders' multiple perspectives to success support a whole person-centered holistic approach to how the team and even the community involved in sport can achieve a balanced overall influence. Sport can transcend languages, boarders, beliefs, and value systems and within sport the culture of sport is a big component on understanding the influence of sport on the outside culture or nation (Dyreson, 2003; Gould et al., 2002). Competitive sport teams have been used to drive initiatives across platforms and impact human rights just as global organizations have used their own platforms, voice, brand, and respect to drive equality and justice (Carter-

Francique et al., 2015; Caudwell & McGee, 2018). Since similar types of teams and social constructs are found from nation to nation and many professional sport organizations are full of a global workforce, sport has been used to create social change or awareness to global issues (Lyras, 2008). Not only do sports on an international stage show a more global world but it can also be used as platforms for change and especially for education (Dyreson, 2003; Gould et al., 2002).

Global behaviors. Similarities to many global leadership competencies are found throughout competitive athletic teams. The competencies are also linked to certain behaviors perpetuated for each individual team in a different way at a different time. A few of the global leadership competencies such as, the ability to manage uncertainty (Truyens, De Bosscher, & Heyndels, 2016), having problem solving skills (Kumari, 2016), relationships and trust (Aoyagi et al., 2008), and to be resilient (Cruickshank & Collins, 2012; Gibson & Zellmer-Bruhn, 2001; Mendenhall et al., 2018). Within the competitive athletic realm one can find similar teams with similar styles and ways of handling competition but very few exhibit the exact same behaviors in the same way (Greenspan, Whitcomb, & Griffith, 2019; Stevens, Loudon, Yow, Bowden, & Humphrey, 2013). Like that of high achieving corporations no two teams or athletes are exact and no two have the same outcome related to multiple factors (Cooper, 2016; Kim et al., 2019).

Within a team environment there are behaviors and traits found within the coaching staff, the players, and supporting staff very much in line with global leadership behaviors and traits such as ability to motivate diverse populations and showing inclusiveness (Cruickshank & Collins, 2012; Gibson & Zellmer-Bruhn, 2001; Mendenhall et al., 2018). Global leadership also considers a global workforce as a diverse population of people with varying cultural attitudes, beliefs, and practices (Mendenhall et al., 2018). Olympic teams are an example of how high-

performance diverse teams can come together on a world stage and participating in similar events and performances all while achieving elite performance (Gould et al., 2002). Within this subset of sport, the teams comprise diverse individuals but also participate within a set environment able to react to and employ an even more diverse set of individuals (Dyreson, 2003; Gould et al., 2002). Increases in self-awareness can also help the team and individual in relation to performance amongst diverse individuals (Bass, Avolio, & Atwater, 1996).

Sport behaviors also affect which teams outperform other teams, no matter if players are equal or better than another team, and have been questioned within the research of sport and has been linked to the teams confidence of team and the ability to perform together (Hampson, & Jowett, 2014; Chow & Feltz, 2008; Zaccaro, Blair, Peterson, & Zazanis, 1995). Each individual also has to understand where each team member can contribute and have confidence and trust in each individual member to do well within competition (Bandura, 1973; 1997). Some behaviors change after wins or losses and has been linked to how confident teams are, how much the motivation can change, or even how much the team comes together or breaks apart during the season (Chow & Feltz, 2008; Feltz & Lirgg, 1998; 2001).

Global behaviors are also present within collegiate athletics and able to be shown and used as a teaching tool to increase awareness and global behavior (Jones et al., 2019). When global behaviors, as related to diversity and inclusion, are not present in a community then sport can show how diverse and ethic individuals are present. This is a way sport can be used in a positive way for exposure and understanding. For most competitive collegiate teams, the diversity of individuals within teams is present and can be used as examples to teach inclusion, teamwork as related to diverse individuals, racism, privilege, sexism, sexuality, and power

dynamics. Within collegiate and more mature audiences this can also be a good way to go over confrontational subjects and may not have such a defensive stance.

Relationships. Since positive relationships with diverse populations are important to achieving high performance within the field of athletics (Cruickshank & Collins, 2012; Vella, Oades, & Crowe, 2013) we can also relate this same concept, positive relationships among teams, to high performance in global leadership (Mendehall et al., 2018). High levels of trust among coaches and players and between player and player are found in high functioning competitive teams (Cruickshank & Collins, 2012; Iyengar, 2014; Jones et al., 2018). Trust and the ability to know and trust others, to believe others will be responsible for their own tasks, and to know those tasks will be carried out is part of the reason there are limited problems on high functioning teams and also in high performing competitive athletic teams (Gupta et al., 2010; Jones et al., 2018).

In sport, an established knowledge base needs to be communicated and a type of leadership relationship exchange amongst the team which can typically carry over from year to year (Beauchamp, Bray, Eys, & Carron, 2005). In competitive athletics those with a robust and active relationship base with other teammates and coaches are more likely to have positive experiences on and off the field of play (Duguay, Loughead, & Munroe-Chandler, 2016). Relationships within competitive athletics and especially at collegiate levels are important to focus on when looking at coaching styles and effectiveness (Kim et al., 2019). Coaches are a critical piece of the puzzle of success and commitment to programs and teams. When coaches are effective many are asked to leave their current program but, as seen within global leadership, when there is a sense of loyalty, emotional ties, social exchanges, and trust found within sport there is a greater chance the coach will stay (Ronkainen et al., 2019). Coaches are essential when

talking about success and how the human needs and experiences within the organization are directly related to this success.

Leadership

In a coach-athlete relationship multiple dimensions of certain leadership behaviors are strongly expressed within the coach where the impact on the athlete is positive (Jowett, & Arthur, 2019). The leadership components found within sport, sport leadership, coaching, and sport performance are focused on other types of leadership models like that found within sport psychology, sociology, sport management, and leadership. Motivation and coaching effectiveness has been linked to a positive coach-athlete relationship and leadership model using many of the same practices coaches use for advancing sport (Kellett, 1999). Leadership within sport is often called the ability to make or break a team, create buy-in, influence team members toward a task or accomplishment, or even create a cohesion amongst members (Merian & Snyder, 2015; Rutten et al., 2011; Vincer & Loughead, 2010). Working with athlete leaders can influence the team members to learn and use leadership behaviors (Vincer & Loughead, 2010) and by increasing the ability of the group to understand leadership the entire group can thrive and can help one another (Kogler-Hill, 2016). Competitive sport has been a driving force for expanding leadership potential in people for many years (Cruickshank & Collins, 2012; Dyreson, 2003; Gibson & Zellmer-Bruhn, 2001). Sport has also been a good arena for those to participate in shared leadership, servant leadership, transformational leadership, and team leadership approaches (Jones et al., 2018; Northouse, 2018; Vella et al., 2013) which have been linked to competitive athletics and winning teams.

Head coaches are expected to lead by authority and experience much like in multiple leadership approaches (Northouse, 2018; Vella et al., 2013). Although the head coach may have a

following because of reputation and historical win: loss records the leadership and culture put into place from that head coach can cause teams to either follow or not follow (Jones et al., 2018; Vella et al., 2013). Much like in servant and transformational leadership the coach usually has an influence factor over the team, has vision of a grand future, and will also have a motivating factor for the team and self just like what you find in global leaders (Burns, 1978; Mendenhall et al., 2018; Northouse, 2018). When teams are managed well leadership not only happens on the field by the coach, but leadership is also found within the team itself (Carpentier & Mageau, 2016; Gupta et al., 2010).

Team leadership model. Team leadership (Kogler-Hill, 2016) focuses on an interdependence of individuals contributing together to succeed on focused goals. Within the team there is a coordinated effort to work with one another to achieve such goals. Competitive athletic teams use team leadership in that each member of the team plays critical roles to compete at a high level (Hill, 2004). Within the team not only are the members constantly working with others, but they are also evolving individually and as a team in relation to changes and threats to success (Wageman, Garner, & Mortenson, 2012). When teams have a flatter structure within the corporate structure the speed of change increases (Hill, 2004; Porter & Beyerlein, 2000) like that within sport when there is trust and cooperation with one another related to the 3C's (Jowett, 2009c). According to Vincer and Loughead (2010) "…athlete leadership was more widespread than initially thought, suggesting that leadership within a team is more than a few athletes assuming a leadership role" (pg. 450).

The Team Leadership Model as expressed by Kogler-Hill (2016), is a model based on both the structure and function between members of a group or team. The assumption in team leadership is there is a reliance on one another to accomplish a task or goal (Kogler-Hill, 2016).

Team leadership also highlights the need to have a supportive organization or team so there is positive member involvement (Kogler-Hill, 2016). Team leadership also uses a coaching model regarding observing and then intervening when needed (Kogler-Hill, 2016). Within competitive athletics and especially at the collegiate level these pieces are present and transfer between and around members of the group (Loughead, Hardy, & Eys, 2006).

A team can be part of an organizational group which shows interdependence to one another and has a focus or vision on common goals (Kogler-Hill, 2016). Those members in the team coordinate and work with one another (Hill, 2004; Kogler-Hill, 2016), constantly evolves (Wageman et al., 2012), and can have faster response and capabilities compared to other models (Porter & Beyerlein, 2000). Competitive athletic teams use internal and external team leadership models (Sullivan & Kent, 2003) and each member from the head coach down to scout players are part of that team and are responsible for various pieces of leadership and tasks (Loughead et al., 2006).

Each member of the team can be used and is given or acquires various leadership roles within the setting to accomplish goals related to success and attainment. In research done by Rees & Segal (1984) it was found among groups of football players in a collegiate setting that different positions, different levels of seniority, and different roles were deploying different leadership and team roles. It was shown those who were starters and those who were not, the equality of being a leader in a social setting was equal. Those who were starters would always be responsible for task leadership, which is anything that is objective based and meant to help the internal functioning of the team in a sport or practice setting. The task leaders were spread equally among the ages from Freshman to Seniors. The social leadership was spread around the team and could be starters or non-starters but 90% of the time the social leaders were Seniors.

Within the Team Leadership Model (Kogler-Hill, 2016) there is also a focus on the external environment which impacts success. In research by Loughead et al. (2006) it was shown that the leaders identified by the team were more likely those who also had the formal leadership role as a captain or other type of leadership. This could be the case because often coaches have the team vote or elect their own captains. This way the captains are already the natural leaders within the team, are already showing leadership within the team, and the team backs the choice and will usually follow these leaders. Regarding external leadership it was found that most times those started and who were more part of the overall outcome of the games, like those who are in plays or who make large gains for positive results. These external leadership roles were more to interact with the public and the coaching staff so makes sense in that it would be a starter or more veteran player as they know the 'language' or the way the coach and outside entities interact with the sport or the university.

Servant leadership. Servant Leadership Theory was founded and described by Greenleaf (1970, 1972, & 1977) as a leadership theory focused on the role of followers and how the leader is attentive to the followers needs and concerns. In Servant Leadership the leader puts all aspects of his or her followers. For example, the leader puts the followers needs before their own, empowers the follower, tries to find and help develop the follower to his or her full potential (Hale & Fields, 2007), and has a great awareness to his or her needs while being empathetic and nurturing (Greenleaf, 1970). Servant leaders are also those with a strong moral and ethical awareness (Graham, 1991; Walumbwa, Hartnell, & Oke, 2010) and servitude toward stakeholders and organizations (Northouse, 2018).

Within sport and competition several components are directly linked to the servant leadership aspects found like doing best for others instead of self. Servant leadership in sport

could be found within an individual coach and team of coaches' natural awareness and his, her, or they roll of serving first and helping those who are underserved. Coaches interact with athletes that could be looked at as having lesser privilege than others, especially when looking at those in underserved areas of collegiate athletics and who are the least privileged while also developing those athletes. Within servant leadership it is assumed that the leader is coming from an altruistic position. When serving is within the strategy of a team which has goals and vision, competitive athletes can use this service to influence the vision and mission of the team (Turner et al., 2019). This vision and link to service can be transferred to the internal motivation and may actually be the reason aspirations become internal motivators.

Servant leadership has many tenants of altruism (Bass & Steidlmeier, 1999; Kanungo & Mendonca, 1996) and positive ethical principles (Greenleaf, 1970) found within the theory. Altruism within servant leadership follows the ideation of the actions and principles within the theory are based on promoting the best interests of others (Bass & Steidlmeier, 1999; Kanungo, & Mendonca, 1996; Northouse, 2018) and could be contrary to the interests of the leader or even be counterproductive to the leaders agenda or goals (Bowie, 1991). Within this theory and practice leaders are looking for those who they can help do or become better, for those who they can serve, and in the process address the inequalities within the society (Graham, 1991). Those who are oppressed people or who are not necessarily looked to as leaders are focused on to create social justice and shift the authority and power found from those who are the oppressor (Freire, 2018; Greenleaf, 1970). The servant leaders not only value the followers but also the community in which he or she serves. The interaction within the community aids the leader in eliciting an area of trust related to interdependence and growth (Greenleaf, 1970).

Servant leadership (Greenleaf, 1970) is focused on recognizing and seeking the good of the follower first to develop the follower and empower the follower to attain certain aspects related to success. The good of the follower comes first outside that of the leader. The follower is also given opportunities and tasks or examples to develop while also ensuring there is nurturing and empathy present (Northouse, 2018, p. 225). Characteristics found within servant leadership which could also be compared to characteristics within competitive athletics are listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of the individuals as well to the community (Spears, 2002; Greenleaf, 1970). The follower's needs are met even if the leader does not believe in them, goodness and empathy are inherent throughout servant leadership (Greenleaf, 1970). Not only does the leader serve the group but they also prepare the followers and group to serve the community and leave a positive legacy for bettering society (Barbuto & Wheeler, 2006).

Within the landscape of competitive athletics and specific to the collegiate NCAA organization, preparing the student athlete for life after athletics is an important aspect of the overall vision. For the NCAA, helping the student athlete contribute to an establishing his or her voice within society and the community of the university and encouraging learning and growth outside of athletics is important (NCAA, 2019). Through Student-Athlete Advisory Councils (SAAC) on each campus the athletes can come together and give voice to concerns within and outside of the campus community and athletics department and may focus on items such as family, leadership, and causes (NCAA, 2000). Such activities function on servant leadership principles and as such are also found within the coach: athlete dichotomy.

Since sports teams are similar to teams within organizational settings in relation to individuals being put together to focus on tasks in short amounts of time, they can be considered

project teams, because both have short lifecycles (Katz, 2001; Keidel, 1987; Van Breukelen, Van Der Leeden, Wesselius, & Hoes, 2012). Within these teams and the model there are foci related to Servant Leadership. Servant leadership aspects of being accountable to the team and outside followers is important in this aspect. The ability to communicate the vision and the overall framework of characteristics of a servant leader are important. Characteristics such as listening, having empathy, being aware of other's needs, communicating and be clear in the persuasion of the vision, having a conceptualization or a vision, predicting the future on what is in front, being committed to growth to the individuals and the team and having a stewardship over those who they lead are all components at this level. Each individual piece builds upon one another and continues on as the servant leader can build community within the team (Greenleaf, 1970; Spears, 2002). Many factors are focused on within the overall team, individual members, season goals, conference goals, strategic vision, or several other factors. The head coach could be communicating this vision with others such as administration or assistants but in the end the primary responsible party is the head coach (Pratt & Eitzen, 1989). This person usually is held accountable for overall effectiveness both at the team and individual levels.

Leader member exchange theory (LMX). Leader Member Exchange Theory was expounded upon by Graen & Uhl-Bien (1995) in the late 1970's as a proposal to the alternative management theories in leading people within a corporate setting. LMX in relation to performance was introduced to include pieces tied to reward within a unit (Graen, Dansereau, Minami, & Cashman, 1973). LMX theory was a continual theory build from the vertical dyad linkage (VDL) theory which focused on the vertical links leaders formed with each of their followers (Graen & Uhl-Bien, 1995; Northouse, 2018). A more in-depth analysis of relationships was studied then applied and the outcome was LMX theory. This theory is concerned primarily

with the interactions of both parties, leaders and members, with a mutual respect and understanding. LMX is focused on the relationship basis and dynamics within and between leader and follower (Graen & Uhl-Bien, 2015). Within this relationship there are multiple perspectives and characteristics present while all considering the personality of the leader and the follower (Sullivan & Kent, 2003). There are also several impacts put upon the ingroup and the outgroup within the setting when LMX in competitive teams such as playing time, preference, time with coach, and instruction (Czekanski & Turner, 2014). The in-group is thought to be given more access to the leader and the outgroup is observing what is happening. This is an important aspect to consider when relating LMX to the field of competitive sport teams. Coaches give leadership to players on the field because often coaches are not engaged enough, there needs to be leadership on the field, or because of the change happening during practice and games (Loughead et al., 2006). A focus on the head coach with a strategy and a vision for the team and the overall season. Within global teams this could be linked to an overall strategy for a company or team (Wooten JR, 1994).

Leader-Member Exchange Theory (LMX; Danserau, Graen, & Haga, 1975; Graen, 1976; Graen & Cashman, 1975) is focused on the dyadic relationship between leaders and followers as a reciprocal process and focused on in-group and out-group interdependence and negotiated responsibilities or contracts. LMX is concerned primarily with the interactions of both parties, leaders and members, with a mutual respect and understanding (Graen & Uhl-Bien, 1995). Coaches give leadership to players on the field because often coaches cannot be engaged enough through the competition because of constant change and elevated stress during games or matches (Loughead et al., 2006). During competition, practice, and out of season sessions is when LMX can be focused on as well and has been found and shown when the nature of teams and

individuals succeed there is a greater amount of the team being interdependent upon one another and having several forms of leadership (Loughead et al., 2006; Van Breukelen et al., 2012).

Interdependent sports teams have similar characteristics of corporate teams in where coordinating with one another and relying upon each member of the team to accomplish a task and achieve optimal results is present (Greenberg, 1982; Hooper & Martin, 2008; Shea & Guzzo, 1987). Interdependent teams found within competitive athletics usually consist of at least one or more coaches and multiple athletes who work with one another to accomplish a specific goal of winning games, matches, races, or other types of competitions (Mallett & Lara-Bercial, 2016). By using LMX in a competitive athletic setting it not only links several theories such as Path-Goal (Evans, 1970; House, 1971; House & Dessler, 1974; House & Mitchell, 1974) and the Team Leadership Model (Kogler-Hill, 2016) it also helps understand different ways for coaches to succeed.

Coaches use different methods with their team members to increase effort, effectiveness, behaviors, structure, or because of how certain members of the team respond (Hackman & Wageman, 2005; Mallett & Lara-Bercial, 2016; Van Breukelen et al., 2012). Although there are different ways of affecting the individual, because of the ability for the coach switching the effort and the approach, overall this helps the team overall. Each individual member can then understand how to approach certain members of the group (Loughead et al., 2006) but also are seeing possible differences in treatment and time one-on-one with coaches (Sullivan & Kent, 2003). Usually when there are good relationships among the team members and the coaches this can improve performance and team cohesion (Van Breukelen et al., 2012; Gerstner & Day; 1997; Schriesheim, Castro, & Cogliser, 1999). Since these leaders are never coming to each individual member the same the underlying style of leadership follows LMX and is highlighted with the

differing treatment of individuals and possibly in differing positions or even differing age groups, all dependent on sport and level of competition. As always there can be negative and positive aspects related to treating team members differently and must be recognized from all involved.

Coaching

Coaches within competitive sport have major influences, both positive and negative, on their athletes and staff which can help gain positive outcomes or can decrease the overall structure of the team and have negative outcome (Love & Kim, 2019; Stirling & Kerr, 2009; 2014). Some of the positive influences in sport are related to bonding, social activities, community service, and learning new concepts together. Some of the negative influences are over-practicing, making unnecessary sacrifices, putting too much pressure on athletes where they fear performance based negative feedback, and could be linked to burnout, exploitation, or abuse of power. Coaching styles can also be consistently compared to and align with several theories within leadership and goal attainment. Although the role of coaching does not have a specific degree needed or specific underlying training many coaches have been able to align themselves to an overall understanding of achieving success within team and individual settings (Love & Kim, 2019).

Coaches and athletes are seen to have a reciprocal relationship in that a coach supports the team and individual and the team supports the coach (Hampson & Jowett, 2014). This support not only helps performance but also helps aid success in multiple aspects related to overall impact of sport, motivation of individuals and team, and cohesion among team members (Mallett & Lara-Bercial, 2016). Social support, and perceptions of how likely coaches support the athlete, and the bond between coaches and players have, influence the overall perception the athlete has of not only self but also how much they are integrated into the team and how they can

be a contributor within the competition. Coaches who show support to their athletes, try to understand where their athlete is coming from, and who show appreciation are more likely to have a positive impact on the athlete and the overall success of the team.

When a coach has a competitive team, even at elite levels, no two team members will be coming to the group with the same abilities, experience, or expertise (Van Breukelen et al., 2012). Each member has different abilities, strengths, expectations, and specialties. This can cause the coach to redistribute time and attention to certain key members and also cause differences in approaches and interactions among members of the team. Sometimes this can happen naturally because of need of position or team member or it can happen intrinsically because of the preference of the coach or similarities between the coach and athlete on multiple dimensions. This could be because of similar styles of play, personality, positions, or backgrounds. The change in interaction and coaching style can also be because of level of play or time of season (Loughead et al., 2006; Love & Kim, 2019; Stirling & Kerr, 2009; 2014). If there is a priority because of performance or lack of performance time and distribution of task rewards, such as playing time or influence on skills needed at a certain time within the season or game, there can be different interpretations of why within the group, team, and individuals.

When coaches interact with athletes during competitions and during practice there can be various interactions which can be positive or negative (Sagar & Jowett, 2012). The communication between coach and athlete can be received differently and is usually part of the instruction of the individual and the team to create success and change. Not only does this interaction change how coaches and athletes gain knowledge but it also affects the relationship and trust between both and can affect the goal related to performance. Everything from culture of coach and athlete, organization of the team and coaching staff, how the team has done overall,

which level of competition and what part of the season can all impact the behavior of the coach with their communication but also impact how the communication is received from the athlete. These can affect how the athlete receives communication and instruction and is cooperative and positive or criticizing and negative (Adie & Jowett, 2010; Baker, Cote, & Hawes, 2000; Jowett, 2009c; Martin, Rocca, Cayanus, & Weber, 2009; Smith, Smoll, & Barnett, 1995)

Path-Goal. Path-Goal theory is based on the work of the 1970's focused on how leaders can motivate followers to rise to complete and accomplish goals focused on enhanced follower performance and satisfaction (Evans, 1970; House, 1971; House & Dessler, 1974; House & Mitchell, 1974). For the leader the importance to focus on not only the behaviors of their followers but also the goals and relationships is important (Indvick, 1986). Coaching includes multiple aspects related to Path-Goal such as retraining, removing obstacles, and working on a more personal level to focus the effort within a framework to help with goals, motivation, expectations, and focus on increasing the payoff for all individuals (House & Mitchell, 1974; Vroom, 1964). Coaches within competitive athletics are continually coaching and retraining their individual team members and the overall team. Situational play during practice, in and out of season, happens because of the direct effect of stopping play and retrain or go over what needs to be accomplished correctly to succeed.

The leadership for coaches and others who implement this way of directing and training is not only directive and supportive, but also participative and achievement oriented (House & Mitchell, 1974). When there are high functioning teams the coaching staff has not only created a strong environment where there is leadership on the field, but leadership can be found throughout the interactions of each member of the team. There are many goals within the season of play and dependent on multiple foundations such as a new team could make the goal of

finishing or play in a certain amount of games. When the established goal is given then other aspects are decided upon and these certain areas of focus still down to the primary goals foundational to path-goal success and attainment.

Internal and external leadership. The two components of coaching styles related to the internal and external leadership of the team are important to highlight within coaching styles. With the internal factors the leadership comes from within the team or from trusted individuals who the team can rely upon and who the team most times has elected to be the leader (Loughead et al., 2006). This leadership could come from any level within the team whether it was the more seasoned players, the chosen leaders or captains, or the "star" athlete. This is also compared to the Kogler-Hill Model (2016) and includes such things such as time and commitment.

The external leadership usually comes from outside the team but could come from various areas such as the network of the head coach, the assistant coaches or positions coaches, or the administration (Turner et al., 2019; Vincer & Loughead, 2010). Dependent on the experiences and the power of the individuals and team this external leadership could have many of the same impacts as the internal leadership. This section relies upon the closeness of the members of the team. This internal and external leadership depends on multiple factors which can be linked to corporate settings and sport settings across the globe; such as trust between teammates, established roles within the structure of the team, either by appointment or casually by internal dynamics, or by performance of individual and rallying behind the "star" of the team (Zhang et al., 2019). This person or group of people is responsible for team collaboration and team focus related to vision of the head coach. This person could agree or disagree with the head coach and could cause internal followers either agreeing with or disagreeing with overall team vision, goals, and outcomes. When a member of internal team leadership is strengthened

throughout the season there could be an increase in following and could also be likened to a key member of the coaching staff. Dependent on team structure this leader or team of leaders could change within season and within multiple factors.

Mentoring

Sport and mentoring, when there is trust and positive relationships, are critical to the success of not only on field expectation but can also have a direct positive effect on career and social support (Kim et al., 2019). With these relationships there are also a reciprocal social support both on relationships and career. Both the athlete and coach will show support for one another in various social, sport, and business settings. The relationship between coach and athlete has been found to a significant contributor to success on and off the field (Jowett & Arthur, 2019). Not only is there a power dynamic but also a positive social influence on goal and task related accomplishments. The relationship is like that of a mentor where the coach can influence and help both sides of the relationship, mentee and mentor, in a positive aspect.

Mentoring has been defined by multiple scholars and is related to increasing a personal relationship with an older member, as a guide, for a younger less experienced member, as a student or to increase their development for a particular subject or need (Kram, 1983). Another definition given from Chip R. Bell (Biech, 2014, p. 636) is less about an older or more seasoned veteran and a younger or less experienced individual but is defined as "...simply helping another learn. Conducted in a one-to-one format.” Mentoring in competitive athletics can take many forms dependent on sport and level of play. For a competitive athlete, the availability and the impact of a mentor can change the experience and the outcome for the athlete on the playing field and in life (Gayles, 2009). Competitive athletics include high levels of stress, extreme competition, and a need to have a reliance on others (Loughead et al., 2006). Within team sports

mentoring can look much different than that in individual sport because in a team sport there is more trust amongst members of the team and the coach rather than in an individual there is more trust put into the coach and only a few teammates (Vincer & Loughead, 2010). In both arenas, athletes have similarities on what mentors do and who is a mentor within the team and outside of the team (Merian & Snyder, 2015).

Collegiate sports and the underlying initiatives in the United States specific to the National Collegiate Athletic Association (NCAA) are related to educating individuals and increasing the competency of athletics among various demographics (Hwang, 2019). Not only does collegiate athletics help the individual but the community where the student is from and the ability for those who 'look like them' but when collegiate student athletes go out into the community (National Collegiate Athletic Association; NCAA, 2019). One of the many NCAA initiatives related to community impact within underserved communities can be related to direct mentoring programs and are used especially with younger community members because of the ability to identify and have role models and mentors who look like they do (Kelly & Dixon, 2014; Merian & Snyder, 2015). This allows and gives platforms related to culture in there the community can identify with the student athlete on multiple factors like gender, age, and other social categories (Hwang, 2019).

An athlete can have mentors from various areas in and outside the arena or playing field. These mentors can include peers on the team, coaches, former athletes, administrators or even mentors from outside his or her athletic spaces (Hancock & Hums, 2016; Loughead et al., 2006; Vincer & Loughead, 2010). Competitive team athletics rely on cohesion across the team and trust amongst individual members of the team. In competitive sport, leadership and mentoring are

looked at as very similar, and both are important aspects present in high- functioning and achieving teams (Beauchamp et al., 2005).

In literature from Bell (2014), the author compares multiple aspects of mentoring and coaching. Mentoring and coaching do have similarities and differences and can be compared and contrasted by the primary goal, the target audience, the sources of influence, the methodology behind the mentoring, and the relationships among individuals. In coaching the goal is to enhance performance while in mentoring it is usually to increase learning. Both aspects are to gain rather than lose some aspect. In coaching the target audience is an individual or group of individuals or team while usually in mentoring it is a one-on-one experience or individual experience (Kelly & Dixon, 2014). Within coaching and the source of influence the role of the coach is usually because of a paid position or role and within mentoring it is usually because of an expertise or increased experience within a certain area. Within the methodology of mentoring within a coaching role it is more of an instruction based or role model based method and in formal mentoring it is more of a discovery aspect. Within comparing the relationship of a mentor, the role of a coach as a mentor usually comes along with the job but can change with changes in coaching staff and changes within an athlete's status. In the role of formal mentoring the relationship is usually self-selected and more formal. Although there are several differences the key indicators in both is to help and to create a partnership for a successful experience.

In other literature, a leader or mentor can be the coach, captains, members of the team, or outside entities (Rutten et al., 2011). In an article by Duguay et al. (2016, pg. 154) they stated: "leadership is a team effort and is carried out by formal and informal leaders." Through athletics, athletes can find leadership opportunities and can be defined as an athlete occupying a formal or informal leadership role within a team who influences a group of team members to achieve a

common goal (Loughead et al., 2006; Vincer & Loughead, 2010). Leadership training specific to corporate settings use similar practices found in competitive athletic mentoring programs and can be attributed to successful goal attainment among a multitude of positive aspects within a global workforce (Day, 2000; McNutt & Wright, 1995).

The role of a mentor in athletics is to impact the success in a positive way to achieve success on and off the playing field (Duguay et al., 2016). In competitive athletics mentors are needed because of the high levels of stress and anxiety happening within the team or individual (Schroth, 2013). A mentorship can be established based on a multitude of aspects for example similarities of position, age, sport, or gender (Xu & Payne, 2014). Coaches intentional in teaching athlete's leadership roles and who utilize leadership development have implemented team captains or peer coaches as a form of mentoring amongst team members (Duguay et al., 2016; Merian & Snyder, 2015; Rutten et al., 2011). Team sports have formal and informal mentor roles amongst teammates, and dependent on the sport mentor roles can be different throughout positions (Merian & Snyder, 2015). Within the collegiate level individual sports are still combined with other individuals so can morph like that of a team sport (NCAA, 2017).

Harmful mentors. Mentoring can be harmful in many aspects both to the mentee and to the mentor. Tolar (2012) has found mentoring can be detrimental to a leader's career, outcome, and potential and mentors could be a hindering effect. The absence of a mentor or access to someone who is more learned can both be a positive or negative benefit. When wanting to make progress in various efforts, having mentoring aspects are helpful but if both the mentee and mentor are having negative outcomes or interactions the mentoring aspect could hurt both in multiple areas. The reason mentors could be negative is related to the mentor having multiple ideas and practices which do not align with the mentee and their ideas. There could also be a

confusion on what the mentor should be doing because a lack of understanding of the process or needs as well (Tolar, 2012).

Mentors who cannot make time for a mentee could also harm the relationship and the mentee because of a lack of time for the mentoring experience and the ability to have access to the mentor could (Tolar, 2012). Mentors are usually very busy, very successful people who have limited time within his or her workweek or time off. Besides the mentor being busy the mentee could also be busy. Mentees who seek mentors are as busy and have as limited amounts of time as their mentors. When this occurs while trying to schedule actual face-to-face interactions could be harmful because of a breakdown in communication or a confusion in the understanding of needs. An impact on positive team cohesion could also be needed in high functioning teams where the role of a mentor could help (Duguay et al., 2016).

Another way a mentor can be harmful is because of an unsuccessful pairing or mismatch of the mentor: mentee (Tolar, 2012; Vincer & Loughead, 2010). When an unsuccessful pairing occurs the mentee and mentor could have opposite expectations for the experience. The unsuccessful match can also turn into a "general dysfunctionality" of the mentoring experience (Bell, 2014; Tolar, 2012). There can be much more negative influences in an unsuccessful pairing to the detriment of the mentees impact on their sport and the mentors themselves. A mentor can also distance him or herself from the mentee because of the lack of quality in the relationship (Tolar, 2012). This could then be harmful or dysfunctional from those outside of the pairing and again affect the team

In harmful mentoring experiences in relation to athletics, the negative aspects of mentoring could be as extreme to tearing a team apart to influencing change negative to the team or individual (Vincer & Loughead, 2010). Negative mentoring experiences in athletics could

happen as older and more experienced coaches and players are trying to groom the next generation and it is not accepted (Vincer & Loughead, 2010). This could happen because the mentee is not open to receiving guidance and instruction. In high level athletic programs, the best athletes are present and often there may be perceived threat to self for new athletes (NCAA, 2015). This can also be thought of an oppression of sorts as related to sport in that "The peasant feels inferior to the boss because the boss seems to be the only one who knows things and is able to run things" (Freire, 2018, p. 63). This could set up a very toxic environment and relationship if the mentor in the athletic setting sees him or herself as the oppressor rather than the liberator.

Helpful mentors. When a mentoring experience is starting most mentors and mentees expect the experience to be helpful (Ely, Ibarra, & Kolb, 2011). These experiences can create an increase in team sustainability and life outcomes and influence change within a team or organization (Harvey, McIntyre, Thompson Heames, & Moeller, 2009). Positive aspects to mentoring are a high level of return for mentor, mentee, and team or organization (Stead, 2014). Helpful mentors can affect his or her leadership skillset, influence on the mentee and the performance on and off the field, increases to cohesion of the team or organization, and can increase in sociomoral reasoning (Duguay et al., 2016; Rutten et al., 2011).

Helpful mentors can increase his or her skill set and political footing within the team and the company by being present in his or her mentee's life (Harvey et al., 2009). By being a mentor one can gain acceptance and momentum in the athletic or career sectors of life and increase the awareness of self (Tolar, 2012). When there is recruiting involved within athletics many coaches look for independent, smart, and hardworking athletes who have good insight, want to learn, and are willing to grow as people (Schroth, 2013). These are all similar to what helpful and beneficial

mentors have. Mentors can benefit from the mentor relationship equal to or more than the mentee and should be looked at as a positive aspect to mentoring (Ely et al., 2011).

Mentors in an athletic arena could also help increase performance on and off the field for the mentee and influence the cohesion of a team or organization (Carter-Francique, Hart, & Cheeks, 2015). Coaches as mentors have been a way to increase or grow a coach-athlete relationship and helps within developing sport on field (Bloom, Durand-Bush, Schinke, & Salmela, 1998; Miller, Salmela, & Kerr, 2002; Poczwardowski, Barott, & Jowett, 2006). Multiple authors see leadership development in all settings around the globe to be beneficial when it can expand the capacity of team members, create a collective understanding, engagement in leadership roles are throughout the group, and the processes can be given to multiple leaders to be carried out (Day, 2000; Duguay et al., 2016; Van Velsor, McCauley, & Ruderman, 2010).

Mentoring can also be called leadership or peer coaching in many circles surrounding athletics and is said to be as impactful as formal corporate mentor program (Merian & Snyder, 2015). Research associated with peer coaching in athletics states the critical need of peer to peer interaction to increase and develop team relationships (Merian & Snyder, 2015). The coaching and learning aspects between peers, as seen through a mentoring lens, can also connect teammates in a stronger way and create a greater sense of belonging with newer members. As with all additional programs surrounding athletics, coaches are an important piece of the dynamic and are needed to approve or guide the relationships and mentoring aspects. Coaches can engage their athletes in an array of activities to foster a sense of community within their team and in doing so can offer unique opportunities for leadership and mentoring (Merian & Snyder, 2015).

Finally, mentors can increase influence of antisocial behavior within the context of sport. When the coach serves as a mentor and focuses on affecting an athlete or team the coach then becomes a role model or mentor (Rutten et al., 2011). This mentor can influence younger athletes to choose right from wrong and also help the athlete overcome obstacles with behavior and antisocial behaviors (Rutten et al., 2011). Coaches and administrators, as mentors, have influence on team and individuals in accessing professional development and career and athletic advancement so realize the impact superiors can have upon their career and time after college (Hancock & Hums, 2016).

Continual Improvement

Players are constantly negotiating changes and getting feedback on what to do in response to the other team or players along with the certain prescriptive plays the coach has prescribed or practice (Carpentier & Mageau, 2016). Constant feedback and change are done simultaneously the opposing team and players are (Lemyre et al., 2007). On the field of competitive sport there are constant changes and nuances throughout the event where there could be exponential solutions and strategy implementation. The coach has high trust and belief that the team can use creative problem solving while linking back from past mistakes or issues (Cruickshank & Collins, 2012).

Other global leadership characteristics can be found within the team environment during competitive play. The characteristics dealing with ambiguity multiple times during the sport competition (Kotschwar & Stahler, 2016), managing uncertainty (Cruickshank & Collins, 2012; Gibson & Zellmer-Bruhn, 2001; Jones et al., 2018), and being adaptable (Iyengar, 2014) are found throughout competitive athletics and have many of the same meanings as found in global leadership research (Lopez & Santelices, 2012). These characteristics all allow both the coach

and the players to remain at a constant state of problem solving and new ways of approaching certain aspects within the sport (Iyengar, 2014; Kotschwar & Stahler, 2016).

More teams comprise multiple athletes from various countries and geographic areas which continually switch how interactions and communication occur (Miller et al., 2001; Schnitzer, & Barth, 2019; Schull, 2017). Competitive sport coaching and administrative staffs have been able to produce positive results in managing global teams by code switch and change how interactions among athletes are differing dependent on need, environment, and reason (Gillet et al., 2010; Kellett, 1999). The ambiguity and change aspects found within competitive athletics also highlight how differing management styles are related to chaos and unsolicited change (Schull, 2017).

Sport behaviors. Sport has been found to not only help establish a good work ethic but also in achieving balance (Gibson & Zellmer-Bruhn, 2001; Iyengar, 2014). When one is within a sports environment there is a focus on meeting a high ability in a short amount of time (Iyengar, 2014; Kotschwar & Stahler, 2016). Factors which contribute to team success are much the same when you look at successful global organizations and successful global leaders. For example, when one considers the relationship between a successful coach and an athlete you find each coach approaches each athlete in a different way (Vella et al., 2012), therefore modeling the global leadership characteristic of having high relationship management skills with varying audiences (Mendenhall et al., 2018).

Within competitive athletics there are significant factors related to success related to individual and team related to behavior, motivation, and success (Love & Kim, 2019). Certain factors are significant as many behaviors are not required but happen because of athletics in general. With collegiate competitive athletics there are more opportunities available for student-

athletes to be part of the greater collegiate campus, being more social, and being in more leadership positions, which all show significant global leadership behaviors. Part of these behaviors show an ability to change behavior at multiple levels and across various demographics. Although the behaviors may not be significant to the actual athletes there is a net impact to improving team performance (Chelladurai & Kerwin, 2017; Love & Kim, 2019).

In competitive athletics, and specific to collegiate NCAA athletes in the United States, there are significant global leadership similarities related to behavior as well (Love & Kim, 2019). Such similarities are going above and beyond which is related to individual initiatives, motivating others, helping others with learning and growth inside and outside of the actual tasks related to sport or primacy, bonding over events or group experiences, community service and integration, and sociability related to recruitment and retention. Often, even though there are rules and governances surrounding NCAA rules and regulations because of competitive athletics most student athletes in winning programs are exceeding expectations related to support for team and leadership.

Team sports are focused on working together to achieve optimum results within an uncontrolled setting. When there is a continual dependency on one another and has factors of trust and interdependence there are higher amounts of success and outcome than when there is not a positive internal atmosphere (Van Breukelen et al., 2012). There are certain reward types of behaviors when teams work well with one another. Such rewards can be social, such as increased feedback among team members accepted, increased attention among the team, the community, the fan base, or the coaches, and a greater understanding or sympathetic aspect when team members go through something negative. The positive social behaviors and factors can bring a

team together more and create a bond which then can be transferee to success on the playing field.

When there is an unequal distribution of the social behaviors, such as attention or sympathy, it can actually have a negative effect of the team and cause internal conflict among team members and impact the success in a negative manner. Some of the only times that the unequal distribution of social reward is given and is not seen as negative or harmful are when the rewards are given to veterans, such as those with multiple years or experiences, differing positions, such as those who are 'in charge' or in key positions such as a pitcher in softball or quarterback in American Football, or with a certain status, such as that of a captain or starter on the team (Deutsch, 1975, 1985; Leventhal, 1980; Van Breukelen et al., 2012).

The business of sport. When comparing athletics and the corporate sector, many similarities can be found, and an overwhelming number of corporate leaders once had ties to competitive athletics (Castellano, 2015). It is shown that competitive athletics have similarities from the playing field to the boardroom. Some similarities are the role of mentors, the influence and effectiveness of teamwork, the ability to work hard and produce results, and being defeated and coming back with resilience and grit (Duguay et al., 2016). Corporate leaders can refer to their time on the playing field and use similar practices in the board room. Leaders can refer to times of success and defeat and use many of the same tenants established such as being problem solvers, motivators, and team players which one had developed many years before (Castellano, 2015).

Competitive athletic teams can be compared to global leadership within business the first of which is the ability to lead diverse individuals toward a common goal (Chiu, Bae, Lee, & Won, 2017; Ettekal et al., 2018). This is done in a team approach within athletics much like that

in a corporate organization. Competitive athletic teams, depending on if professional, collegiate, amateur, all have certain similar factors or pieces. A team can comprise a front office or administrative staff who oversee day-to-day operations off the field. Such as game day operations, selling of tickets, managing contracts, trade negotiations, field maintenance and so forth. Coaches and assistant coaches oversee day-to-day operations on the field. The primary role of coaches is to create, manage, and teach a team to win games like that in many management roles found within the corporate setting.

In competitive sport and teams there are opportunities to show potential within the team being linked to a collective vision that then helps drive an intrinsic motivation in relation to success and attainable outcomes (Turner et al., 2019). This is linked to global business models of strategy and company vision within and outside of multiple divisions and teams and linked to a global leadership lifestyle (Kets de Vres, Vrignaud, & Florent-Treacy, 2004; Osland, 2018b). When you can create a humanistic perspective the ability to influence and do well is then related to vision, mission, objectives, strategy, and tactics (Turner et al., 2019; Wooten JR, 1994). Using emotion is also a way to make sure there is a focus on drive and purpose like that when creating company visions and goals or when trying to gain traction within a new market or new customer base (Conway & Fitzpatrick, 1999).

Coaching is one of the many aspects within competitive athletics that not only equals a human resources position but also training and development (Kim et al., 2019). Not only should corporate structures look at the way coaches effectively create teams but also on how programs recruit and retain successful coaches. Sport teams still have issues with retaining high profile coaches but there is never a low availability of coaches present in sport. Long-term relationships

are key to recruiting and retaining skilled coaches and is linked to job satisfaction and organizational commitment.

In the business environment, more organizations are using competitive athletic best practices and harness the competitiveness trait and strategy implementation to increase productivity among the workforce (Castellano, 2015; McNutt & Wright, 1995; Van Velsor et al., 2010). The current trend is for competitive athletes to transition to the corporate setting, using sport metaphors within a corporate setting, or using leadership which uses business and sport metaphors, and is becoming a bigger topic on an American and international scale since research on this subject has found a correlation between competitive athletics and C-suite professional leaders (Castellano, 2015; Jenkins, 2005).

In business the ability to identify and use a corporate responsibility model for strategy is an important part of success (Hwang, 2019). Not only do the identifying factors found within sport cross over to business, but sport and business use one another to drive social activities related to increasing moral, finances, and ethical stances (Carroll, 1979; Hwang, 2019; Lockett, Moon, & Visser, 2006; Walker & Kent, 2009; Windsor, 2006). Using this model increases followers and affecting an entire division or multiple demographics by being locked into one type of message but can also drive social responsibility, attachment, and increases to philanthropic needs that may have not been identified.

In a business setting the factor of high- or low-quality relationships are tied to differential treatment between employees and supervisors (Van Breukelen et al., 2012). When there is low quality relationships employees see the differential treatment as a negative and somewhat harmful aspect of the relationship among employees and management. When there is a high-quality relationship those experiencing the relationship do always see the treatment as helpful

and may even think of the treatment differences as a fair response to effort and work performance.

Although many corporate leaders may lack formal training, research has shown a significant amount of the top leaders in the business setting having atypical types of leadership training and experiences. Atypical types of training can be tied to success, increased potential, and leadership ability (Ibarra et al., 2013). Most corporate leaders in an upper administration have ties to participation in a competitive athletic setting (Castellano, 2015; Hancock & Hums, 2016; Loughead et al., 2006). In a study by Castellano (2015), a survey of almost 500 women in executive and C-Suite roles had an overwhelming participation in competitive or collegiate sport. Within executives 94% had participated in some sport and in the C-suite 52% had participated in collegiate level athletics. What is even more surprising is the number of women in executive type roles those who have never participated in any sport competition, which was between 3-9%, respective to C-suite and other executives. Significant amounts of higher-level CEO's and CFO's have participated in competitive athletes at one time in their life in either team or individual sports (Castellano, 2015).

Competitive athletics enables individuals to participate in leadership practice even though there is not a formal training model established. Best practices and access to leadership training across athletic settings could prove effective in later years. Since there are few models in place, often, the responsibility falls upon the corporate sector and reliance on corporate training patterns, mentorship-based programs, and self-discovery. People become leaders iteratively: They shoulder increasingly challenging roles, learn from mentors, and experiment with new behaviors. Then, if their performance is affirmed, they repeat the process (Ibarra et al., 2013). As

a global leader the role and behavior of a competitive athlete showed a more than positive effect on success in business.

Gaps and Inconsistencies in the Literature

There are multiple crossovers within the literature but also many gaps or inconsistencies within the literature to warrant the study on competitive teams in relation to the perception of the head coach service leadership and coach-athlete relationship on the outcome of the team and individual tied to global leadership and change. The researcher believes that competitive athletics can be researched in a way not done in studies or in previous research related to the study of global leaders. Other areas of global leadership can take information from and implement similar research designs and branch into a new realm within the global leadership and change area. The research is relevant at this time because there is limited if no global leadership research done within competitive athletics (J. Osland, personal communication, 2019). Not only will this research bridge the gap between the two areas, but this research could open a new area within global leadership study.

These gaps and inconsistencies are discussed below:

- Few pieces of literature combine global leadership and change with athletics (J. Osland, personal communication, 2019). Although much research has been done in both spaces of global leadership and change and multiple aspects within athletics the two have not been tied together to adopt a new area of research within the global leadership space. Global leadership theory, books, and examples have been given hinting to that of athletics but the ties within the literature are not currently present.
- Leadership within competitive athletics focuses on limited leadership styles or theories and as stated by Burton & Welty Peachey (2013) and Burton et al. (2017) more research

and focus on servant leadership within sport should be focused on as servant leadership is more people focused on the role of the followers. Multiple leadership models or theories have been studied within competitive athletics, but most are tied to older theories such as transformational leadership (Burns, 1978). The researcher has the assumption that for most if not all coaches have a leadership style, approach to coaching, or idea of what would work in certain areas of sport. The researcher does believe most coaches and athletes would expect to have a transformational leadership approach so other leadership styles should now be researched to see if there are other styles which produce greater results.

- Research is limited when including post-season play. There have been limited amounts of research tying the success of teams and coaches to whether post-season play (Bojke, 2007) can be predicted or be an indicator of a successful relationship between player and coach.
- Gaps showing differing instruments to study global leadership and change from inside and outside of the main country of research (S. Jowett, personal communication, 2020). There have been limited amounts of research highlighting international instruments being used in the United States for research. Using the CART-Q alongside the Servant Leadership Questionnaire will highlight the utilization of an international instrument alongside an American based survey highlighting the interplay of succeeding within research.
- There are gaps within the research of comparing the CART-Q in various team sports, genders, and coach-athlete gender dynamics. As stated by Jowett and Chaundy (2004) and Hampson and Jowett (2014) further research using the CART-Q should be focused on

and account for same-gender vs. cross-gender relationships, differences in long-term vs. short-term relationships, and comparing and contrasting different team sports.

- Correlational and predictive research within global leadership and change is limited (Osland, 2008a). Using correlations to predict success has some premise in scientific based research but there are limited amounts done in an uncontrolled setting within the space of a more behavior-based research model.
- Data and the availability of already tracked data being used within research is limited. There are multiple streams of data from a historical and fact-based inquiry available in competitive athletics. All athletics in the professional and collegiate spaces tracks and keeps the data available usually on public sites which can be used by research. Data available is important and only in the last few years has this been recognized within the space of business and organizational behavior (AOM Conference Proceedings, personal communication, 2019).

Since there have been limited amounts of research being done within competitive athletic teams and the role of relationship within the leadership of the coaching staff on positive outcome attainment the researcher sees this space as an opportunity to showcase not only the links within the space but also the availability of data, collaboration, and access.

Chapter Summary

Chapter 2 highlighted the context of the study, restating the purpose of the study and the research questions, sub-questions, and hypotheses. Within the chapter the conceptual framework, as related to the review of literature on global leadership and sport, was highlighted including five overarching themes including; global leadership and sport, leadership styles, coaching styles, mentoring, and continual improvement. Within the chapter gaps and inconsistencies of the

literature and why the study is relevant were also given. In the next chapter, Chapter 3, the research methodology will be given.

Chapter 3: Research Methodology

Chapter Overview

Chapter 3 will restate the purpose of the study and the research question and go into detail about the research methodology and design including the setting and sample. Human subject considerations is discussed along with instrumentation. Lastly, an explanation on the final pieces of the study is discussed along with the data collection, analysis, and management.

Introduction

The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

The overarching question that guides this study is:

RQ: To what extent, if at all, do coach-student athlete relationships present as associated factors in individual and team performance?

Theoretical Framework

The theoretical framework for this research is using Dr. Martine Jago's (2020) Conceptual Theoretical Framework for Theoretical Frameworks, as seen in Figure 2. Using this design framework focuses on the goal, approach, worldview, methodology, method, and tools used within the study. Each area focuses on the ability to make key assumptions based on multiple philosophies found within research and philosophical thought. Sections are explained in greater detail below.

Goal	*To analyze how five aspects of perceived head coach servant leadership, three aspects of the coach-athlete relationship (3C), and the gender of athlete are associated factors in individual performance and team performance at the team and individual level within competitive athletics.*
Approach	*Quantitative*
Worldview	*Subjective Constructivism and Postpositivism*

(continued)

Methodology	*Correlational: relationship of Servant leadership and 3C have on outcome*
Methods	*Perception-based adapted survey and historical statistics with descriptive statistics using multivariate analysis.*
Tools	*Online adapted survey instrument using Qualtrics and historical statistics published online*

Figure 2. Theoretical framework

Research Design

The research design follows the Theoretical Framework of Research Design (Jago, 2020) and focuses on areas within philosophical thought and biases. Within the research design a focus on goal, approach, worldview, methodology, methods, and tools will be given. The research within this study is focused on competitive athletic team sports at the collegiate level. The goal of the research is to analyze the phenomenon of athlete perception on head-coach servant leadership and coach-athlete relationships as associated factors to individual and team performance and compared between NCAA identified sports.

The research involved is quantitative in design utilizing an adapted model survey instrument using two tools as discussed below. Using the quantitative methods approach to the study allowed for a comparative analysis and multivariate analysis using a perception-based analysis survey and outcome attainment via historical statistics, both team and individually.

The worldview of the study follows the ontology of Subjective Constructivism; in that reality can be from human perceptions and thoughts but can differ from one person to another (Creswell & Creswell, 2014). These thoughts can be socially created but also acknowledge the group having thoughts and ideas based on what has been created. Referring to competitive sport many individuals make up a team and are always deciding based on best fit for self and team. The team also functions as one but can vary dependent on perception of threat or non-threat,

individual playing time, individual and team outcome, and various other aspects not mentioned in this dissertation.

The worldview also follows an epistemology and ontology using a postpositivism approach, which is focused on gathering knowledge as an assessment of the nature of reality or what is really there (Creswell & Creswell, 2014; Given, 2008). Since postpositivism describes an approach and an assessment it is both an epistemology and an ontology. The researcher tried to predict behaviors and outcomes of the athlete based on the questionnaire, perceptions of the athlete in relation to the coach, and outcomes via statistics at the individual and team levels.

The methodology was correlational in design and was accomplished by adapting two surveys related to athlete perceptions. Correlational design focuses on related terms and broader association using multivariate models to find the association between two or more variables and can include various correlational co-efficients to prove or deny association between variables (Browne & Cudeck, 1993; Salkind, 2010).

The methods employed used a perception-based adapted survey, historical statistics, and descriptive statistics using multivariate analysis. The surveys attempted to find perceptions on a statistical level to compare those results to team and individual outcome using the Likert scaling, so the perception of assessment is unidimensional for all respondents (Salkind, 2010). Descriptive statistics using multivariate analysis techniques was conducted to evaluate the differences between the dependent variables simultaneously (Salkind, 2010).

The tools used were an adapted online survey including the Servant Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006), the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Chaundy, 2004), and additional demographical questions administered

through the online Qualtrics software. This information was then compared to the historical data related to outcome, at both team and individuals, which is published on a public site.

Setting and Sample

It was anticipated the population for this study would be 280 SA who participate in team sports within the total of 408 of Division II NCAA student-athletes enrolled at an open enrollment public institution in the Southwest United States. At this institution, there are over 408 total student-athletes across 15 varsity competitive male and female sports teams. There are roughly 185 females and 223 male student-athletes, out of the population, n=280, 163 (p-value) surveys would have needed to be obtained to have a 95% confidence level, or 138 at a 90% confidence level, or 198 at a 99% confidence level (Raosoft.com, 2020). The target population is to have each of the 280 student-athletes ranging in age from 18-30 with varying educational and demographic levels. These student-athletes will be from across 8 of the competitive female and male team sports respectively. Since the worldwide pandemic of COVID-19, quarantines, limited access to online capabilities, the cancellation of face-to-face classes, and the cancellation of NCAA sport during the time of this study, 100 total SA responded and 50 of those responses were able to be used.

The participants for this study were student-athletes from an NCAA Division II institution which has 15 competitive athletic teams, six men's teams and nine women's teams. This institution announced they would be going through a change within the NCAA divisions in the 2020-21 season of play and will be moving up to the NCAA Division I arena of play. While this study is timely in mitigating and researching on the parameters within the study and the time frame, please note the added stress and pressure within the 2019-20 season. Adding stress related to the last year at the Division II level, the influence of a worldwide pandemic, quarantine, and

the increase of worry and stress as it relates to outcome, trust, reliability, and security is an important factor to monitor during the changes. All participants were out of season or past post-season since sports which are completed in the Fall 2019 season were asked to participate and the Spring 2020 season had been cancelled by NCAA regulatory bodies by the time the study was distributed.

Human Subject Considerations

The research being conducted within this study followed the Title 45, Part 46 of the U.S. Code of Federal Regulations, the Pepperdine IRB ethical protocols, and principles in the Belmont Report which focused on:

1. Respect: for persons as autonomous agents and those with diminished autonomy have protection;
2. Beneficence: the well-being will be secured, and the researcher tried to maximize benefits to the participants and minimize potential risks;
3. Justice: the selection of participants was fair and the risks and benefits of researching the population was equitable.

As with Pepperdine University IRB protocol the researcher completed the Collaborative Institutional Training Initiative (CITI) Program, see Appendix A, and learned correct policies and practices for protecting human subjects participating in a research study of this design following recommendations given by the GSEP division of Pepperdine University including the Social-Behavioral-Educational Human Subjects Training.

Site approval for this study and access to the population was obtained through the Director of Athletics and the Undergraduate Research Office, as seen in Appendix B. A mutual IRB Cooperative Authorization Agreement was be obtained from the research site and signed as

soon as IRB approval from Pepperdine University was complete to acknowledge the Pepperdine University IRB Institutional Review Board oversight of IRB approval, procedures, and policies for the study before data collection occurs. This information is found in Appendix K. An application was submitted to the Pepperdine University Graduate and Professional School IRB office using the e-Protocol system and included all forms including the information sheet for surveys as specified for exempt consent forms regarding surveys.

Participation in the study was voluntary, participants were able to deny, withdraw, or refuse to participate at any time, with no negative consequences. Confidentiality was given for this research study, including responses to the survey, which have been kept confidential. The confidentiality of records was maintained under applicable state and federal laws. The data has been kept confidential and, in a password, protected online system and password protected external hard drive kept in a password protected safe. The research records will be kept for at least three years as required by federal regulations. The results have been summarized as a whole, as so no persons, outside of the researcher, will identify singular people. The only persons who had and continue to have access to research records are the study personnel, the Institutional Review Board (IRB), and any other person, agency, or sponsor as required by law. The information from this study may be published in scientific journals or presented at scientific meetings but the data will be reported as group or summarized data and identity will be kept strictly confidential. All personal identifying information has been removed from surveys and published statistics by de-identifying and pseudonym have been assigned from the researcher for each athlete. The researcher only had access to the pseudonym key as to keep confidentiality of names and results.

The researcher sent each athlete a link to the online Qualtrics survey starting with an informed consent agreement, see Appendix C and D, which stated participation in the study being voluntary and information on the ability for the participant to withdraw during his or her participation in the study without consequence.

Minimal risk was involved with participating in this research but as such participants may have become more aware of servant leadership and their awareness of team commitment, closeness, and complementarity because of the assessments. The benefits of participation were social in aspects related to a mutual and educational knowledge increase for the student athletes and the impact of servant leadership, team commitment, closeness, and complementarity, which are found within global leadership. There were also benefits of participation in knowledge and adding to the area of research related to competitive sport, outcome attainment, and the impact of global leadership research within a sport setting.

Instrumentation

The first instrument used was the Servant Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006), Appendix E, and the second instrument used was the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Chaundy, 2004), Appendix F. These instruments were adapted with permissions, see Appendix G and Appendix H, and used alongside the historical statistics, which are published on a public site, to confirm or deny the hypotheses at the individual and the team levels. Self-reported demographic information, Appendix I, was also collected such as:

- Country of origin and/or citizenship;
- Identity of race or ethnicity;

- Year of collegiate participation (Freshman, Sophomore, Junior, Senior, including redshirt years);
- Sport participating in; on campus? If not, where?
- Total years of participation in his or her collegiate sport;
- Total years participating at the university within the sport;
- Total years with the current coach and/or assistant coaches.

The overview of the two adapted surveys with validity, reliability, and scoring is discussed below.

SLQ. The SLQ is a 21-item inventory/questionnaire developed by Barbuto and Wheeler (2006) to measure characteristics of servant leadership in 11 areas such as calling, listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, growth, and community building. Fifty-six items were originally generated for the first round of inquiry upon development of the instrument as suggested by Hinkin and Schriesheim (1989) and Devellis (1991). Each statement within the SLQ starts with "This person…" and falls under one of the five subscales and is scored on a 4-point scale from "Strongly Disagree" (scored 1) to "Strongly Agree" (scored 4), which are summed and can be totaled between 23 and 115. The questionnaire can be found in Appendix E, Servant Leadership Questionnaire. The five subscales of the SLQ with statements are:

- Altruistic Calling:
    - This person puts my best interests ahead of his/her own.
    - This person does everything he/she can to serve me.
- Emotional Healing:
    - This person is good at helping me with my emotional issues.

    - This person is talented at helping me to heal emotionally.
- Wisdom:
    - This person has great awareness of what is going on.
    - This person seems in touch with what's happening.
- Persuasive Mapping:
    - This person encourages me to dream "big dreams" about the organization.
    - This person is gifted when it comes to persuading me.
- Organizational Stewardship:
    - This person encourages me to have a community spirit in the workplace.
    - This person is preparing the organization to make a positive difference in the future.

To find face validity before distribution the authors used expert raters, including 6 leadership faculty and 5 advanced leadership doctoral students, from 6 universities. These raters were asked to perform a priori analysis and the results indicated 4 of the 56 items failing the criterion for being well written. After rewriting another round of questions 5 faculty reviewed and revised the 56 items for face validity. Reliability and validity were tested helped by expert raters, from 80 elected officials and 388 colleagues or employees of the leaders. Exploratory Factor Analysis was conducted based on the sample size being suitable for rigor and analysis as indicated by Hurley & Scandura (1997). The original sample of 11 factors was reduced to 5 factors using varimax rotation with Kaiser normalization indicating 23 statements as valid (Barbuto & Wheeler, 2006).

Internal reliability for the subscales was found using the SPSS scale internal reliability (α) functions (Arbuckle & Wothke, 1999; Tucker & Lewis, 1973). Confirmatory Factor Analysis

was done to test the factor structure of the subscales using Jöreskog & Sörbom (2003) LISREL 8.54 maximum likelihood CFA for estimation to confirm for goodness of fit. Convergent and divergent validity was also done for the subscales by looking at the sample for patterns relative to that of servant leadership and transformational leadership. Predictive validity was also performed on the subscales and outcome variables and correlated with the five subscales of servant leadership with a positive correlation. The factor analysis indicated 23 statements distributed between five factors for the final version of the SLQ. The original SLQ has alpha coefficients for the five subscales: altruistic calling (α = .93), emotional healing (α = .91), wisdom (α = .93), persuasive mapping (α = .90) and organizational stewardship (α = .89) and reliability coefficients of: altruistic calling (α = .87), emotional healing (α = .87), wisdom (α = .82), persuasive mapping (α = .87) and organizational stewardship (α = .86) (Barbuto & Wheeler, 2006). Dannhauser and Boshoff (2007) supported the validity of the SLQ with EFA and CFA and found high correlation but failed to support the five-factor structure. Trivers (2009) also found high correlation coefficients among the five subscales but a single factor accounted for a 72% variance from the first component analysis and only the first component had an eigenvalue greater than one at 3.60.

The authors do not indicate scoring as related to any exact point but do discuss the use for the questionnaire to be used for pre- and post-testing of servant leadership attributes in leadership development initiatives. They continue to point out saying those with high servant leadership characteristics may have greater emotional health, wisdom, and legacy as a service-oriented individual. The responses for the SLQ for each section are scored from 1 (Strongly Disagree) to 4 (Strongly Agree), will have a total range from 23 and 115, and could have an overall mean of 2.5. The original mean, as reported from Barbuto and Wheeler (2006), was between 2.48 to 2.98

(SD = 0.49 to 0.58) for self-rated SLQ. One standard deviation below the mean will indicate the student-athlete strongly disagreed for perceived coach servant leadership and one standard deviation above the mean will indicate the student-athlete strongly agreed for perceived coach servant leadership. This information along with correlations was used for accepting or rejecting the alternative and null hypotheses alongside the other data points from the CART-Q and the historical data points.

CART-Q. The CART-Q is an 11-item meta-perspective inventory/questionnaire developed by Jowett (2009) to measure the relationship quality of an athlete and coach in three areas such as closeness (feelings), commitment (thoughts), and complementarity (behaviors). From the original instrument the CART-Q (Jowett & Ntoumanis, 2004) it was suggested to modify the original items to include athletes' judgment of perceptions of their coaches about the coach: athlete relationship in relation to how much coaches were close, committed, or complimentary. Each statement within the CART-Q starts with "My coach…" or "My athlete…" and falls under one of the three subscales and is scored on a 7-point response scale from "Strongly Disagree (scored 1) to "Strongly Agree" (scored 7), which are summed and can be totaled between 11 and 77. For this study the researcher will be using "My coach…" and "My position coach/assistant coach…". The questionnaire can be found in the Appendix F, Coach–Athlete Relationship Questionnaire–Metaperspective Version. The three subscales of the CART-Q with statements are:

- Closeness (feelings):
    - My coach likes me
    - My coach trusts me
    - My coach respects me

    - My coach appreciates the sacrifices I have experienced to improve performance

- Commitment (thoughts):
    - My coach is committed to me
    - My coach is close to me
    - My coach believes that his/her sport career is promising with me
- Complementarity (behaviors):
    - My coach is at ease
    - My coach is responsive to my efforts
    - My coach is ready to do his/her best
    - My coach adopts a friendly stance

Validity and reliability were established by two studies done by Jowett (2009) to examine the factor structure and criterion-validity. The results indicated each factor was separate but still correlated to one another (Jowett, 2009b). The second study examined to see if criteria were relative to one another across two differing demographics, coaches and athletes. The outcome showed that they were relative and interrelated and could gauge and accurately measure and understand perceptions at this level of coach: athlete (Jowett, 2009b).

In the first study used the EQS Version 6.1 for Windows (Bentler & Wu, 2002) to see if the factors and structure of the factors were valid. A two-index presentation strategy (Hu & Bentler, 1998) was used for analysis using the standardized root-mean-square residual (SRMR) and the comparative fit (Bentler, 1990) index (RCFI) see what the fit within the models was. The Satorra-Bentler scaled chi-square statistic and the root-mean-square error of approximation (RMSEA) was also reported. The goodness of fit model used the Akaike's (1987) information criterion (AIC) and Bozdogan's (1987) sample size-adjusted statistic (CAIC). The results

indicated that the factors were strongly and correlated to one another such as; closeness and commitment r =.89, complentarity and closeness r = .92, and commitment and complementarity r = .74. The values for AIC and CAIC were -40.971 and -204.306. The three factors were acceptable with RCFI = .95 and significant with Satorra-Bentler X^2 (38) = 77.84, p = .01. Overall the results suggested the three-dimensional model, closeness, commitment, and complementarity, were significant.

The reliabilities for the athlete sample, using the meta-perspective version, were meta-closeness .86, meta-commitment, .86, and meta-complementarity .84 and for the coach sample meta-closeness .78, meta-commitment .69, and meta-complementarity .75. Confirmatory factor analysis was used in the EQS Version 6.1 for Windows (Bentler & Wu, 2002) to test the structure of the factors using the same factors, method of analysis, ad goodness-of-fit from the previous sample. The athlete sample indicated a very good model fit and was acceptable via RCFI = .97 and Satorra–Bentler X^2 (38) = 54.00, p = .05, approaching non-significance, SRMR = .05, and RMSEA = .05 (90% CI = .01, .07) (Jowett, 2009b). The three factors were correlated significantly with closeness and commitment at r = .98, complementarity and closeness at r = .85, and commitment and complementarity at r = .79. The coach sample indicated an excellent fit model showing RCFI = 1.00, Satorra-Bentler X^2 (38) = 24.49, p = .95; SRMR = .06; RMSEA = .00 with standardized factor loadings ranged from .51 to .83 showing all to be statistically significant at $p < .05$. the three factors were correlated significantly with closeness and commitment at r = .43, complementarity and closeness at r = .40, and commitment and complementarity at r = .31. A multiple regression analysis was done where all showed high intercorrelations at both the independent and dependent variables for both coach and athletes and are appropriate for both populations. This information was also compared to outcome variables

related to training, performance, and treatment as related to satisfaction and was validated and supported by the data (Jowett, 2009b; Jowett & Ntoumanis, 2004).

The two versions of the CART–Q have relatively high alpha coefficients, above .70 (Jowett & Ntoumanis, 2004). Overall, both versions of the CART–Q are sound and share comparable factorial structures. An assessment of the alpha coefficients of the 3 Cs has revealed acceptable scores on the self-perceptions with a range of .79 to .88, and for the meta-perceptions with a range of .77 to .86. The authors Jowett & Ntoumanis (2004) gave descriptive statistics for means, standard deviations, skewness, and kurtosis scores of the eleven items decided upon. These scores ranged from a mean above 5, skewness ranging from -0.67 to -1.77, and kurtosis scores from 0.096 to 3.89 (Jowett & Ntoumanis, 2004). These showed some non-normality but also need to be related to the smaller sample size within the study this information was taken from. Jowett (2009) did not elaborate on scoring within her secondary analysis of the CART-Q but does indicate this assessment as a valid indicator of predicting interpersonal relationships and the impact on performance specific to competitive sports.

The responses for the CART-Q for each section are scored from 1 (Strongly Disagree) to 7 (Strongly Agree), will have a total range from 11 to 77, and could have an overall mean of 4. The original mean, as reported from Jowett (2009) was between 4.25 to 5.63 for each item, indicating positive perspectives and are satisfied with all aspects. The standard deviation for the Jowett (2009) study was between 1.05 to 1.47, with significance at the .05 level.

Data Collection

Data collection happened in two parts, the first was by using the adapted SLQ and CART-Q surveys with demographical questions, and the second used the historical statistical data from a public website. For the initial part of the research study the researcher was able to adapt the

two surveys to serve the purposes of this study and test the hypotheses given, see Appendices G and H for permissions of adaptations. This quantitative assessment was then adapted in adding demographical questions to the SLQ (Barbuto & Wheeler, 2006) and the CART-Q (Jowett & Chaundy, 2004) questionnaires. The demographical questions were collected to include country of origin, year of collegiate participation (Freshman, Sophomore, Junior, Senior, including redshirt years), total years of participation in his or her collegiate sport, years of participation at the university within the sport, and years with the current coach, see Appendix I. This information was collected to identify the extent to which each team within the sample represents the larger population. This assessment measured perceptions the student-athlete had on their head coach as related to servant leadership, commitment, closeness, and complementarity, at the time of the study.

The second piece of this study used the historical published quantitative statistics for the current season, 2019-2020. Each student athlete had both the individual and team level statistics published. For the team level statistics, wins and losses were collected and indications of if post-season appearances had been made. For the individual statistics, appearances in numbers of games and starting appearances were collected. The individual and team statistics are similar in definition for all sports but not for numbers of amounts in each of the sports.

Participants within the study were chosen from the 408 student athletes at an NCAA Division II institution which houses fifteen sports teams, six men's sports and nine women's sports, eight team sports and seven individual sports, which competed at the DII level of collegiate play. The target population is the 280 student athletes within the eight team sports, NCAA designated as four female and four male, at a Division II varsity level of play. The total of 408 team and individual student-athletes were sent a link, through their password-protected

email, to the adapted form of the CART-Q and SLQ Qualtrics survey with additional demographical questions. Out of the target population, *n*=280, 163 (p-value) surveys need to be obtained to have a 95% confidence level, or 138 at a 90% confidence level, or 198 at a 99% confidence level (Raosoft.com, 2020). The student athletes receive the adapted assessment, which consisted of the SQL (Barbuto & Wheeler, 2006) and the CART-Q (Jowett & Chaundy, 2004), to their student email address after IRB approval.

One reminder email was sent a week after the initial email to the student-athlete. This reminder email had the same language as the first email and stated participation is voluntary and in no way would participating in the study impact their academic standing, eligibility, or place on the competitive athletic team they were participating within. Since the worldwide pandemic of COVID-19, quarantines, limited access to online capabilities, the cancellation of face-to-face classes, and the cancellation of NCAA sport during the time of this study, 100 total SA responded and 50 of those responses were able to be used.

Data Management

The participants were informed that no identifying information obtained in the study would be or will continue to be shared with coaches, peers, other athletic teams, or athletic administrators. Any identifying information such as names or email addresses were removed to secure the confidentiality of individual data in the event data is exposed. Safety of data and long-term storage have occurred by having the data collected through Qualtrics, an online database survey system, and downloaded data stored on the researcher's password protected external hard drive housed in a locked safe within the researcher’s home. The data will be saved for at least three years as stated with federal laws. Licensing and copyright clearance was obtained by the

researcher, for educational inquiry and research, from the originator of the questionnaires adapted for this study, see Appendices G and H.

The historical statistical data, which is housed on a state website and published on a nationally known public accessed site, was collected and integrated within the study. The data was maintained on an already existing Qualtrics account only accessed by the researcher with password protection. After analysis the data has been downloaded and stored on a password protected external hard drive in the principal investigators place of residence within a locked safe. Data needed for future studies will be on a limited basis. The researcher is responsible for the safety and management of the research project and data. The data was collected, de-identified, and transcribed to be used for this primary research purpose. Informed consent procedures have been followed for privacy and protection of individuals who participated in the study.

Data Analysis

In this study the Qualtrics data management software was used in sending the adapted survey questionnaire and collecting the data from the responses. This information was to be then converted and uploaded into RStudio and analyzed by using the 'car' package found within RStudio. The survey data was to be put into RStudio so the information could be stored for ease of use. Since the worldwide pandemic of COVID-19 and quarantines associated RStudio could not be accessed readily so SPSS was then used for analysis, which is shown in Chapter 4. Those surveys with missing data were rejected. There was inherent bias and is discussed in the results, as the sample is not random but is of a specific population. Social desirability did not have a negative effect as the information obtained from the surveys is not shared among the coaches or athletic administration or staff. This was done so student-athletes could respond without positive

or negative effects on athletic performance, playing time, scholarship, or any other perceived threat.

The results from the survey were checked and cleaned for accuracy and were analyzed using multivariate regression analysis. The CART-Q and SLC questions were separated from one another and summed. The mean, mode, and standard deviations for each were then calculated, as shown in Chapter 4. The demographics for the participants were collected and analyzed alongside the summed data to represent the populations involved and the significance of difference on the SLQ variables to the CART-Q variables among male and female student-athletes.

The descriptive statistics, for both the SLQ and the CART-Q, were computed for the outcome variables, both overall, for each instrument variable, and for each attribute (grouping) of the predictor variable (sport by NCAA indication). The data was obtained and scoring of the tests was summed and calculated for the mean, mode, and standard deviations. The descriptive statistics for the self-reported demographics is given on Table 4. The multivariate statistics provide an indication between the strength and direction of the relationship between the 3 variables within the CART-Q and 5 variables within the SLQ, the null hypothesis are tested using multivariate analysis and comparing each variable to one another. This information was used to then compare the overall wins and losses and post-season appearances and individual pieces described above to validate or ignore the hypothesis.

The historical statistical pieces of information was determined by what was published and available to the researcher at the time of the study. All identifying information was removed about participants after primary data collection and analysis and all were given pseudo initials to

keep data linked to individual statistics. The pseudo initials key is locked in the researcher's password protected safe and only accessed by the researcher.

Chapter Summary

Chapter 3 gave an overview of the research methodology and data collection techniques which were used in the study including; theoretical framework, research design, setting and sample, human subject considerations, and instrumentation. Procedures that were set in place for confidentiality and privacy and examples of the tools which were used in the study, including validity and reliability, were shown. Data collection, management, and analysis were also highlighted.

Chapter 4: Presentation of Findings

Chapter Overview

Chapter 4 is the presentation of the findings of the study on coach athlete relationships as associated factors in performance. The chapter will begin with restating the purpose statement, research questions, and sub-questions as related to the study. The chapter will continue with the major sections of findings with charts, graphs, tables, and statistical significance of the data gathered. The chapter will end with a summary and a focus on the key findings found through the research study.

Introduction

The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

The overarching question that guides this study is:

RQ: To what extent, if at all, do coach-student athlete relationships present as associated factors in individual and team performance?

The sub-questions that guide this study are:

SQ1: To what extent, if at all, do three aspects of the coach-athlete relationship (3C)- closeness, commitment, and complementarity- present as associated factors in individual performance and team performance?

SQ2: To what extent, if at all, do five aspects of head coach servant leadership-altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship- present as associated factors in individual performance and team performance?

SQ3: To what extent, if at all, does the NCAA identified sport of the athlete present as an associated factor in individual performance and team performance?

Data Collection Process

For the relevance of the study, findings from each team including individual foci will be presented with both regression analysis and descriptive statistics. Descriptive statistics will be highlighted within this chapter for each hypotheses along with some other relevant information found within the study. Historical statistics at both the team and individual levels will also be presented on outcome attainment for the 2020-21 sport season for the eight individual teams and those chosen individuals focused on within the CART-Q and SLQ findings.

The Coach-Athlete Relationship Questionnaire (CART-Q; Jowett, 2009a) with eleven questions distributed within three relational areas, closeness, commitment, and complementarity, and the Servant-Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006) with 22 questions distributed within five leadership areas, altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship was sent via email to the population during the Spring 2020 academic semester. The overall population consisted of 381 student athletes distributed among sixteen collegiate sports, both individual and team sports, on a Division II campus and the study population consisted of those who participated in team sports during the 2020-21 academic year. The survey was open for three weeks and participants received a reminder email one week after the initial email was sent if they did not complete the survey. One hundred responses were completed and collected during the distribution period. Of those responses 86 were completed. Among the 86 responses 50 were gathered from individuals who participated within the eight collegiate athletic team sports focused on in this study. Each team is represented by at least two responses in Table 4 and are broken down: Women's Basketball (WBB; 5), Women's Soccer (WSoc; 10), Women's Softball (WSoft; 3), Women's Volleyball (WVB; 2), Men's Baseball (MBase; 14), Men's Basketball (MBB; 5), Men's Football (MFB; 14), Men's Soccer (MSoc; 3).

Those who participated in the individual sports, such as Women's Swimming or Men's Cross Country as examples, are listed as Other not listed (30). The other not listed will not be used for this study and will not be reported within the regression analysis or descriptive statistics for each assessment and for the historical statistics.

Table 4

Population of Teams

Sport	Number of Responses
Women's Basketball	5
Women's Soccer	10
Women's Softball	3
Women's Volleyball	2
Men's Baseball	14
Men's Basketball	5
Men's Football	14
Men's Soccer	3
Other not listed	30

SQ1: CART-Q

The first sub-question (SQ1) states: To what extent, if at all, do three aspects of the coach-athlete relationship (3C)- closeness, commitment, and complementarity- present as associated factors in individual performance and team performance?

To evaluate this question and the hypothesis associated the CART-Q (Jowett, 2009a) was used and individual athletes' self-perception of the head coach are highlighted in this piece of the study. This 7-point Likert-style questionnaire focuses on the quality of the relationship between coach-athlete from the athletes' perspective. Each question starts with "My coach…" and focuses on the metaperspective of the individual athlete on the head coach of the team. Although each

team can have multiple coaches at the collegiate level, this study only focused on the head coach and participants were reminded via the prompts on the survey to only focus on the head coach of the specific team they participated with for the 2019-20 season. The responses for the CART-Q for each section are scored from 1 (Strongly Disagree) to 7 (Strongly Agree), will have a total range from 11 to 77, and could have an overall mean of 4. The original mean, as reported from Jowett (2009) was between 4.25 to 5.63 for each item, which will indicate positive perspectives and satisfied within all aspects. The standard deviation for the original Jowett (2009) study was between 1.05 to 1.47, with significance at the .05 level.

The eight teams are highlighted in the tables below following the mean and standard deviations, the descriptive statistics for the CART-Q are given in Table 5 below for comparing the other tables for accuracy. Each team is represented within the results and is highlighted for each question broken up into the three areas of Closeness, Commitment, and Complementarity for more clarity. The means range from a high for Complementarity Best at 6.20 to a low for Complementarity Ease at 4.64 on a 7-point scale. The standard deviations range from a high for Commitment Close at 1.876 to a low for Complementarity Best at 1.125. Each question was given a variable description to make cleanliness of data for the reporting and can be seen in Appendix J for each question.

Table 5

CART-Q Descriptive Statistics

	N	Mean	Std. Deviation
Closeness Like	50	5.78	1.556
Closeness Trust	50	5.70	1.460
Closeness Respect	50	5.70	1.657
Closeness Appreciate	50	5.48	1.693

(continued)

	N	Mean	Std. Deviation
Commitment Commit	50	5.40	1.750
Commitment Close	50	4.70	1.876
Commitment Career	50	5.04	1.641
Complementarity Ease	50	4.64	1.575
Complementarity Effort	50	5.26	1.664
Complementarity Best	50	6.20	1.125
Complementarity Friendly	50	5.38	1.537
Valid N (listwise)	50		

The descriptive statistics for CART-Q as related to closeness for each question of the overall population reported in Table 5 show mean and standard deviations (M, SD) as Closeness Like (5.78, 1.556), Closeness Trust (5.60, 1.46), Closeness Respect (5.70, 1.657), Closeness Appreciate (5.48, 1.693), Commitment Commit (5.40, 1.693), Commitment Close (4.70, 1.876), Commitment Career (5.04, 1.641), Complementarity Ease (4.64, 1.575), Complementarity Effort (5.26, 1.664), Complementarity Best (6.20, 1.125), Complementarity Friendly (5.38, 1.537).

The model summary tables for the CART-Q and all associated factors to the dependent variables are given for clarity. The model summary for the CART-Q as related to wins, including r (.541) and r^2 (.293) values, is given in Table 6.

Table 6

Model Summary CART-Q: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.541[a]	.293	.088	4.116	2.011

Note: a. Associated Factors: (Constant), Complementarity Friendly, Closeness Trust, Complementarity Effort, Complementarity Ease, Complementarity Best, Closeness Like, Closeness Appreciate, Commitment Close, Commitment Commit, Commitment Career, Closeness Respect
b. Dependent Variable: Wins

The model summary for the CART-Q and all associated factors as compared to losses, including r (.464) and r^2 (.215) values, is given in Table 7.

Table 7

Model Summary CART-Q: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.464[a]	.215	-.012	2.734	2.397

Note: a. Associated Factors: (Constant), Complementarity Friendly, Closeness Trust, Complementarity Effort, Complementarity Ease, Complementarity Best, Closeness Like, Closeness Appreciate, Commitment Close, Commitment Commit, Commitment Career, Closeness Respect
b. Dependent Variable: Losses

The model summary for the CART-Q and all associated factors (independent variable) to post-season appearances (dependent variable), including r (.519) and r^2 (.270) values, is given in Table 8.

Table 8

Model Summary CART-Q: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.519[a]	.270	.058	.846	2.003

Note: a. Associated Factors: (Constant), Complementarity Friendly, Closeness Trust, Complementarity Effort, Complementarity Ease, Complementarity Best, Closeness Like, Closeness Appreciate, Commitment Close, Commitment Commit, Commitment Career, Closeness Respect
b. Dependent Variable: Post Season

The model summary for CART-Q and all associated factors as compared to starts, including r (.523) and r^2 (.273) values, is given in Table 9

Table 9

Model Summary CART-Q: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.523[a]	.273	.063	7.038	1.875

Note: a. Associated Factors: (Constant), Complementarity Friendly, Closeness Trust, Complementarity Effort, Complementarity Ease, Complementarity Best, Closeness Like, Closeness Appreciate, Commitment Close, Commitment Commit, Commitment Career, Closeness Respect
b. Dependent Variable: Games Started

The model summary for the CART-Q and all associated factors as compared to games played, including r (.291) and r^2 (.085) values, is given in Table 10.

Table 10

Model Summary CART-Q: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.291[a]	.085	-.180	9.119	2.356

Note: a. Associated Factors: (Constant), Complementarity Friendly, Closeness Trust, Complementarity Effort, Complementarity Ease, Complementarity Best, Closeness Like, Closeness Appreciate, Commitment Close, Commitment Commit, Commitment Career, Closeness Respect b. Dependent Variable: Games Played

The CART-Q (Jowett, 2009a) is broken up for each of the 3C factors of commitment, closeness, and complementarity. Within the quantitative questionnaire each question is related to one of the three variables. The three independent variables as related to the dependent variables such as games played, games started, wins, losses, and post season appearances will be discussed. Correlations for the dependent variables are given within each of the subsets and are shown with the following correlation tables as related to the CART-Q for accuracy. The Model Summary, which includes r and r^2 values, is also given for each of the correlations broken up into each 3C are: Closeness, Commitment, and Complementarity. The correlation tables will also show 1-tailed significance at the .05 level and those with '*' are shown to be statistically significant.

CART-Q of closeness. The correlations of the associated factor related to closeness (independent variable) within the CART-Q to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 11 and Table 12 which include the Pearson Correlations and 1-tailed significance. The Model Summary, which includes r and r^2 values, is also given for each of the correlations broken up into each dependent variable as related to the 3C indicator of Closeness.

Correlations and model summary related to closeness and wins;

Table 11

Correlations CART-Q Closeness: Wins

		Wins	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Wins	1.000	.243	.222	.210	.043
	Closeness Like	.243	1.000	.752	.892	.676
	Closeness Trust	.222	.752	1.000	.763	.678
	Closeness Respect	.210	.892	.763	1.000	.773
	Closeness Appreciate	.043	.676	.678	.773	1.000
Sig. (1-tailed)	Wins	.	.045*	.061	.072	.385
	Closeness Like	.045*	.	.000*	.000*	.000*
	Closeness Trust	.061	.000*	.	.000*	.000*
	Closeness Respect	.072	.000*	.000*	.	.000*
	Closeness Appreciate	.385	.000*	.000*	.000*	.

Table 12

Model Summary CART-Q Closeness: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.325[a]	.106	.026	4.254	2.030

Note: a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect
b. Dependent Variable: Wins

Correlations and model summary related to closeness and losses in Table 13 and Table 14;

Table 13

Correlations CART-Q Closeness: Losses

		Losses	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Losses	1.000	.130	.251	.158	.243
	Closeness Like	.130	1.000	.752	.892	.676
	Closeness Trust	.251	.752	1.000	.763	.678
	Closeness Respect	.158	.892	.763	1.000	.773
	Closeness Appreciate	.243	.676	.678	.773	1.000
Sig. (1-tailed)	Losses	.	.184	.039*	.137	.045*
	Closeness Like	.184	.	.000*	.000*	.000*
	Closeness Trust	.039*	.000*	.	.000*	.000*
	Closeness Respect	.137	.000*	.000*	.	.000*
	Closeness Appreciate	.045*	.000*	.000*	.000*	.

Table 14

Model Summary CART-Q Closeness: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.303[a]	.092	.011	2.703	2.460

*Note:*a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect
b. Dependent Variable: Losses

Correlations and model summary related to closeness and post season in Table 15 and Table 16;

Table 15

Correlations CART-Q Closeness: Post Season

		Post Season	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Post Season	1.000	.161	.147	.045	-.043
	Closeness Like	.161	1.000	.752	.892	.676
	Closeness Trust	.147	.752	1.000	.763	.678
	Closeness Respect	.045	.892	.763	1.000	.773
	Closeness Appreciate	-.043	.676	.678	.773	1.000
Sig. (1-tailed)	Post Season	.	.133	.154	.378	.383
	Closeness Like	.133	.	.000*	.000*	.000*
	Closeness Trust	.154	.000*	.	.000*	.000*
	Closeness Respect	.378	.000*	.000*	.	.000*
	Closeness Appreciate	.383	.000*	.000*	.000*	.

Table 16

Model Summary CART-Q Closeness: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.326[a]	.106	.026	.861	1.872

Note: a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect b. Dependent Variable: Post Season

Correlations and model summary related to closeness and games started in Table 17 and Table 18;

Table 17

Correlations CART-Q Closeness: Games Started

		Games Started	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Games Started	1.000	.005	-.010	-.107	-.052
	Closeness Like	.005	1.000	.752	.892	.676
	Closeness Trust	-.010	.752	1.000	.763	.678
	Closeness Respect	-.107	.892	.763	1.000	.773
	Closeness Appreciate	-.052	.676	.678	.773	1.000
Sig. (1-tailed)	Games Started	.	.487	.473	.230	.359
	Closeness Like	.487	.	.000*	.000*	.000*
	Closeness Trust	.473	.000*	.	.000*	.000*
	Closeness Respect	.230	.000*	.000*	.	.000*
	Closeness Appreciate	.359	.000*	.000*	.000*	.

Table 18

Model Summary CART-Q Closeness: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.258[a]	.067	-.016	7.330	1.684

Note: a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect
b. Dependent Variable: Games Started

Correlations and model summary related to closeness and games played in Table 19 and Table 20;

Table 19

Correlations CART-Q Closeness: Games Played

		Games Played	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Games Played	1.000	-.049	-.130	-.072	-.107
	Closeness Like	-.049	1.000	.752	.892	.676
	Closeness Trust	-.130	.752	1.000	.763	.678
	Closeness Respect	-.072	.892	.763	1.000	.773
	Closeness Appreciate	-.107	.676	.678	.773	1.000
Sig. (1-tailed)	Games Played	.	.367	.185	.310	.230
	Closeness Like	.367	.	.000*	.000*	.000*
	Closeness Trust	.185	.000*	.	.000*	.000*
	Closeness Respect	.310	.000*	.000*	.	.000*
	Closeness Appreciate	.230	.000*	.000*	.000*	.

Table 20

Model Summary CART-Q Closeness: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.159[a]	.025	-.062	8.648	2.396

Note: a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect
b. Dependent Variable: Games Played

CART-Q of commitment. The correlations of the associated factors related to commitment (independent variable) within the CART-Q to the dependent variables (games

played, games started, wins, losses, and post season appearance) are given in Table 21, which include the Pearson Correlations and 1-tailed significance. The Model Summary, which includes r and r^2 values, is also given in Table 22 for each of the correlations broken up into each dependent variable as related to the 3C indicator of Commitment.

Correlations and model summary related to commitment and wins;

Table 21

Correlations CART-Q Commitment: Wins

		Wins	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Wins	1.000	.111	.286	.279
	Commitment Commit	.111	1.000	.790	.847
	Commitment Close	.286	.790	1.000	.826
	Commitment Career	.279	.847	.826	1.000
Sig. (1-tailed)	Wins	.	.222	.022*	.025*
	Commitment Commit	.222	.	.000*	.000*
	Commitment Close	.022*	.000*	.	.000*
	Commitment Career	.025*	.000*	.000*	.

Table 22

Model Summary CART-Q Commitment: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.406[a]	.165	.111	4.065	2.075

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit
b. Dependent Variable: Wins

Correlations and model summary related to commitment and losses in Table 23 and Table 24;

Table 23

Correlations CART-Q Commitment: Losses

		Losses	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Losses	1.000	.093	.131	.094
	Commitment Commit	.093	1.000	.790	.847
	Commitment Close	.131	.790	1.000	.826
	Commitment Career	.094	.847	.826	1.000
Sig. (1-tailed)	Losses	.	.261	.182	.258
	Commitment Commit	.261	.	.000*	.000*
	Commitment Close	.182	.000*	.	.000*
	Commitment Career	.258	.000*	.000*	.

Table 24

Model Summary CART-Q Commitment: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.134[a]	.018	-.046	2.780	2.226

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit
b. Dependent Variable: Losses

Correlations and model summary related to commitment and post season in Table 25 and Table 26;

Table 25

Correlations CART-Q Commitment: Post Season

		Post Season	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Post Season	1.000	.126	.152	.132
	Commitment Commit	.126	1.000	.790	.847
	Commitment Close	.152	.790	1.000	.826
	Commitment Career	.132	.847	.826	1.000
Sig. (1-tailed)	Post Season	.	.192	.146	.181
	Commitment Commit	.192	.	.000*	.000*
	Commitment Close	.146	.000*	.	.000*
	Commitment Career	.181	.000*	.000*	.

Table 26

Model Summary CART-Q Commitment: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.153[a]	.023	-.040	.890	1.786

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit
b. Dependent Variable: Post Season

Correlations and model summary related to commitment and games started in Table 27 and Table 28;

Table 27

Correlations CART-Q Commitment: Games Started

		Games Started	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Games Started	1.000	-.018	.137	.056
	Commitment Commit	-.018	1.000	.790	.847
	Commitment Close	.137	.790	1.000	.826
	Commitment Career	.056	.847	.826	1.000
Sig. (1-tailed)	Games Started	.	.450	.171	.349
	Commitment Commit	.450	.	.000*	.000*
	Commitment Close	.171	.000*	.	.000*
	Commitment Career	.349	.000*	.000*	.

Table 28

Model Summary CART-Q Commitment: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.249[a]	.062	.001	7.269	1.516

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit
b. Dependent Variable: Games Started

Correlations and model summary related to commitment and games played in Table 29 and Table 30;

Table 29

Correlations CART-Q Commitment: Games Played

		Games Played	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Games Played	1.000	-.086	.025	-.054
	Commitment Commit	-.086	1.000	.790	.847
	Commitment Close	.025	.790	1.000	.826
	Commitment Career	-.054	.847	.826	1.000
Sig. (1-tailed)	Games Played	.	.277	.432	.355
	Commitment Commit	.277	.	.000*	.000*
	Commitment Close	.432	.000*	.	.000*
	Commitment Career	.355	.000*	.000*	.

Table 30

Model Summary CART-Q Commitment: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.179[a]	.032	-.031	8.524	2.435

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit b. Dependent Variable: Games Played

CART-Q of complementarity. The correlations of the associated factors related to complementarity (independent variable) within the CART-Q to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 31, which include the Pearson Correlations and 1-tailed significance. The Model Summary, which includes

r and r^2 values, is also given in Table 32 for each of the correlations broken up into each dependent variable as related to the 3C indicator of Complementarity.

Correlations and model summary related to complementarity and wins;

Table 31

Correlations CART-Q Complementarity: Wins

		Wins	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Pearson Correlation	Wins	1.000	.230	.216	.219	.215
	Complementarity Ease	.230	1.000	.543	.422	.724
	Complementarity Effort	.216	.543	1.000	.713	.551
	Complementarity Best	.219	.422	.713	1.000	.581
	Complementarity Friendly	.215	.724	.551	.581	1.000
Sig. (1-tailed)	Wins	.	.054	.066	.063	.067
	Complementarity Ease	.054	.	.000*	.001*	.000*
	Complementarity Effort	.066	.000*	.	.000*	.000*
	Complementarity Best	.063	.001*	.000*	.	.000*
	Complementarity Friendly	.067	.000*	.000*	.000*	.

Table 32

Model Summary CART-Q Complementarity: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.268[a]	.072	-.010	4.333	1.994

Note: a. Associated Factors: (Constant), Complementarity Friendly, Complementarity Effort, Complementarity Ease, Complementarity Best
b. Dependent Variable: Wins

Correlations and model summary related to complementarity and losses in Table 33 and Table 34;

Table 33

Correlations CART-Q Complementarity: Losses

		Losses	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Pearson Correlation	Losses	1.000	-.124	.120	.105	.104
	Complementarity Ease	-.124	1.000	.543	.422	.724
	Complementarity Effort	.120	.543	1.000	.713	.551
	Complementarity Best	.105	.422	.713	1.000	.581
	Complementarity Friendly	.104	.724	.551	.581	1.000
Sig. (1-tailed)	Losses	.	.195	.203	.233	.236
	Complementarity Ease	.195	.	.000*	.001*	.000*

(continued)

	Losses	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
	Complementarity Effort	.203	.000*	.	.000*	.000*
	Complementarity Best	.233	.001*	.000*	.	.000*
	Complementarity Friendly	.236	.000*	.000*	.000*	.

Table 34

Model Summary CART-Q Complementarity: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.346[a]	.120	.041	2.662	2.073

Note: a. Associated Factors: (Constant), Complementarity Friendly, Complementarity Effort, Complementarity Ease, Complementarity Best
b. Dependent Variable: Losses

Correlations and model summary related to complementarity and post season in Table 35 and Table 36;

Table 35

Correlations CART-Q Complementarity: Post Season

		Post Season	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Pearson Correlation	Post Season	1.000	.146	-.006	.191	.050

(continued)

		Post Season	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
	Complementarity Ease	.146	1.000	.543	.422	.724
	Complementarity Effort	-.006	.543	1.000	.713	.551
	Complementarity Best	.191	.422	.713	1.000	.581
	Complementarity Friendly	.050	.724	.551	.581	1.000
Sig. (1-tailed)	Post Season	.	.156	.483	.092	.365
	Complementarity Ease	.156	.	.000*	.001*	.000*
	Complementarity Effort	.483	.000*	.	.000*	.000*
	Complementarity Best	.092	.001*	.000*	.	.000*
	Complementarity Friendly	.365	.000*	.000*	.000*	.

Table 36

Model Summary CART-Q Complementarity: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.362[a]	.131	.054	.849	1.894

Note: a. Associated Factors: (Constant), Complementarity Friendly, Complementarity Effort, Complementarity Ease, Complementarity Best
b. Dependent Variable: Post Season

Correlations and model summary related to complementarity and games started in Table 37 and Table 38;

Table 37

Correlations CART-Q Complementarity: Games Started

		Games Started	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Pearson Correlation	Games Started	1.000	.090	-.097	-.075	-.020
	Complementarity Ease	.090	1.000	.543	.422	.724
	Complementarity Effort	-.097	.543	1.000	.713	.551
	Complementarity Best	-.075	.422	.713	1.000	.581
	Complementarity Friendly	-.020	.724	.551	.581	1.00
Sig. (1-tailed)	Games Started	.	.268	.250	.301	.446
	Complementarity Ease	.268	.	.000*	.001*	.000*
	Complementarity Effort	.250	.000*	.	.000*	.000*
	Complementarity Best	.301	.001*	.000*	.	.000*
	Complementarity Friendly	.446	.000*	.000*	.000*	.

Table 38

Model Summary Complementarity CART-Q: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.211[a]	.045	-/040	7.416	1.681

Note: a. Associated Factors: (Constant), Complementarity Friendly, Complementarity Effort, Complementarity Ease, Complementarity Best
b. Dependent Variable: Games Started

Correlations and model summary related to complementarity and games played in Table 39 and Table 40;

Table 39

Correlations CART-Q Complementarity: Games Played

	Games Played	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Pearson Correlation	Games Played	1.000	-.096	-.042	-.044	-.067
	Complementarity Ease	-.096	1.000	.543	.422	.724
	Complementarity Effort	-.042	.543	1.000	.713	.551
	Complementarity Best	-.044	.422	.713	1.000	.581
	Complementarity Friendly	-.067	.724	.551	.581	1.00

(continued)

		Games Played	Complementarity Ease	Complementarity Effort	Complementarity Best	Complementarity Friendly
Sig. (1-tailed)	Games Played	.	.253	.386	.381	,321
	Complementarity Ease	.253	.	.000*	.001*	.000*
	Complementarity Effort	.386	.000*	.	.000*	.000*
	Complementarity Best	.381	.001*	.000*	.	.000*
	Complementarity Friendly	.321	.000*	.000*	.000*	.

Table 40

Model Summary CART-Q Complementarity: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.099[a]	.010	-.078	8.716	2.343

Note: a. Associated Factors: (Constant), Complementarity Friendly, Complementarity Effort, Complementarity Ease, Complementarity Best
b. Dependent Variable: Games Played

Discussion relative to the CART-Q will be discussed further in Chapter 5.

SQ2: SLQ

The second sub question (SQ2) states: To what extent, if at all, do five aspects of head coach servant leadership-altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship- present as associated factors in individual performance and team performance?

To evaluate this question and the hypothesis associated the Servant Leadership Questionnaire (SLQ; Barbuto & Wheler, 2006) was used by assessing each of the individual

athletes' self-evaluation of the head coach related to servant leadership. This 4-point Likert-style questionnaire focuses on servant leadership attributes as related to five areas as defined by the Barbuto and Wheeler, 2006. The five areas are Altruistic Calling (AC), Emotional Healing (EH), Wisdom (W), Persuasive Mapping (PM), and Organizational Stewardship (OS). Each question starts with "This person…" and focuses on the athletes' perception of the servant leadership attributes of the head coach on the current team. Although each team can have multiple coaches at the collegiate level, this study only focused on the head coach and participants were reminded via the prompts on the survey to only focus on the head coach of the specific team they participated with for the 2019-20 season.

The eight teams are highlighted in the tables below following the mean and standard deviations of each dependent variable, the descriptive statistics for the SLQ are given in Table 41 below for comparing the other tables for accuracy. Each team is represented within the results of *N*= 50 and is highlighted for each question broken up into the five areas of Altruistic Calling (AC), Emotional Healing (EH), Wisdom (W), Persuasive Mapping (PM), and Organizational Stewardship (OS) for more clarity. The means range from a high of 3.68 on a 4-point scale and a low of 2.60. The standard deviations range from a high of 1.077 to a low of .626. Each question was given a variable description to make cleanliness of data for the reporting and can be seen in Appendix J.

Table 41

SLQ Descriptive Statistics

	Mean	Std. Deviation	N
Altruistic Interests	3.08	.853	50
Altruistic Serve	3.20	.782	50

(continued)

	Mean	Std. Deviation	N
Altruistic Sacrifice	3.10	.763	50
Altruistic A Beyond	3.12	.849	50
Emotional Trauma	2.68	1.077	50
Emotional Emotion Issue	2.64	1.025	50
Emotional Heal	2.60	.948	50
Emotional Mending	2.76	1.001	50
Wisdom Alert	3.18	.800	50
Wisdom Consequences	3.12	.940	50
Wisdom Awareness	3.06	.913	50
Wisdom Happening	3.02	.915	50
Wisdom Future	2.98	.845	50
Persuasive Reasons	2.94	.913	50
Persuasive Dreams	3.26	.876	50
Persuasive Overall	3.06	.867	50
Persuasive Convince	3.00	1.010	50
Persuasive Gifted	2.84	.934	50
OrgSteward Moral	3.68	.587	50
OrgSteward BuildCommunity	3.66	.626	50
OrgSteward Society	3.64	.631	50
OrgSteward Campus	3.52	.863	50
OrgSteward Future	3.66	.717	50

The model summary tables for the SLQ and all associated factors to the dependent variables are given for clarity. The model summary for the SLQ and all associated factors as compared to wins, including r (.839) and r^2 (.703) values, is given in Table 42.

Table 42

Model Summary SLQ: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.839[a]	.703	.441	3.223	1.795

Note: a. Associated Factors: (Constant), OrgSteward Future, Wisdom Happening, Altruistic Serve, Persuasive Dreams, Wisdom Consequences, Persuasive Overall, Emotional Emotion Issue, OrgSteward BuildCommunity, Altruistic Above & Beyond, Altruistic Interests, OrgSteward Campus, Persuasive Reasons, Persuasive Convince, Emotional Trauma, Wisdom Alert, Emotional Mending, Wisdom Future, OrgSteward Society, Altruistic Sacrifice, Persuasive Gifted, OrgSteward Moral, Emotional Heal, Wisdom Awareness
b. Dependent Variable: Wins

The model summary for the SLQ and all associated factors as compared to losses, including r (.729) and r^2 (.531) values, is given in Table 43.

Table 43

Model Summary SLQ: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.729[a]	.531	.116	2.556	2.288

Note: a. Associated Factors: (Constant), OrgSteward Future, Wisdom Happening, Altruistic Serve, Persuasive Dreams, Wisdom Consequences, Persuasive Overall, Emotional Emotion Issue, OrgSteward BuildCommunity, Altruistic Above & Beyond, Altruistic Interests, OrgSteward Campus, Persuasive Reasons, Persuasive Convince, Emotional Trauma, Wisdom Alert, Emotional Mending, Wisdom Future, OrgSteward Society, Altruistic Sacrifice, Persuasive Gifted, OrgSteward Moral, Emotional Heal, Wisdom Awareness
b. Dependent Variable: Losses

The model summary for the SLQ and all associated factors as compared to post season appearances, including r (.693) and r^2 (.481) values, is given in Table 44.

Table 44

Model Summary SLQ: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.693[a]	.481	.021	.863	1.510

Note: a. Associated Factors: (Constant), OrgSteward Future, Wisdom Happening, Altruistic Serve, Persuasive Dreams, Wisdom Consequences, Persuasive Overall, Emotional Emotion Issue, OrgSteward BuildCommunity, Altruistic Above & Beyond, Altruistic Interests, OrgSteward Campus, Persuasive Reasons, Persuasive Convince, Emotional Trauma, Wisdom Alert, Emotional Mending, Wisdom Future, OrgSteward Society, Altruistic Sacrifice, Persuasive Gifted, OrgSteward Moral, Emotional Heal, Wisdom Awareness
b. Dependent Variable: Post Season

The model summary for the SLQ and all associated factors as compared to games started, including r (.574) and r^2 (.329) values, is given in Table 45.

Table 45

Model Summary SLQ: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.574[a]	.329	-.265	8.176	1.727

Note: a. Associated Factors: (Constant), OrgSteward Future, Wisdom Happening, Altruistic Serve, Persuasive Dreams, Wisdom Consequences, Persuasive Overall, Emotional Emotion Issue, OrgSteward BuildCommunity, Altruistic Above & Beyond, Altruistic Interests, OrgSteward Campus, Persuasive Reasons, Persuasive Convince, Emotional Trauma, Wisdom Alert, Emotional Mending, Wisdom Future, OrgSteward Society, Altruistic Sacrifice, Persuasive Gifted, OrgSteward Moral, Emotional Heal, Wisdom Awareness
b. Dependent Variable: Games Started

The model summary for the SLQ and all associated factors as compared to games played, including r (.695) and r^2 (.484) values, is given in Table 46.

Table 46

Model Summary SLQ: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.695[a]	.484	.027	8.279	1.704

Note: a. Associated Factors: (Constant), OrgSteward Future, Wisdom Happening, Altruistic Serve, Persuasive Dreams, Wisdom Consequences, Persuasive Overall, Emotional Emotion Issue, OrgSteward BuildCommunity, Altruistic Above & Beyond, Altruistic Interests, OrgSteward Campus, Persuasive Reasons, Persuasive Convince, Emotional Trauma, Wisdom Alert, Emotional Mending, Wisdom Future, OrgSteward Society, Altruistic Sacrifice, Persuasive Gifted, OrgSteward Moral, Emotional Heal, Wisdom Awareness
b. Dependent Variable: Games Played

The SLQ (Barbuto & Wheeler, 2006) is broken up for each of the five factors including altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship. Within the quantitative questionnaire each question is related to one of the five factors. The five independent variables as related to the dependent variables such as games played, games started, wins, losses, and post season appearances will be presented. Pearson Correlations and 1-tailed significance ($N = 50$) for the dependent variables as related to the independent variables are given within each of the subsets and are shown as related to the SLQ for accuracy. The 1-tailed significance is given to identify if the model is more significant than when using a 2-tailed significance. The Model Summary, which includes *r* and r^2 values, is also given for each of the five variables related to the SLQ; altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship. The correlation tables will also

show 1-tailed significance at the .05 level and those with '*' are shown to be statistically significant.

SLQ to altruistic calling. The correlations of the associated factors related to altruistic calling (independent variable) within the SLQ to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 47, which include the Pearson Correlations and 1-tailed significance.

Correlations and model summary related to altruistic calling and wins in Table 47 and Table 48;

Table 47

Correlations SLQ Altruistic Calling: Wins

		Wins	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Pearson Correlation	Wins	1.000	.107	.236	.152	.110
	Altruistic Interests	.107	1.000	.709	.709	.663
	Altruistic Serve	.236	.709	1.000	.855	.701
	Altruistic Sacrifice	.152	.709	.855	1.000	.738
	Altruistic Above & Beyond	.110	.663	.701	.738	1.000
Sig. (1-tailed)	Wins	.	.231	.049*	.146	.223
	Altruistic Interests	.231	.	.000*	.000*	.000*
	Altruistic Serve	.049*	.000*	.	.000*	.000*
	Altruistic Sacrifice	.146	.000*	.000*	.	.000*
	Altruistic Above & Beyond	.223	.000*	.000*	.000*	.

Table 48

Model Summary SLQ Altruistic Calling: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.264[a]	.070	-.013	4.339	2.085

Note: a. Associated Factors: (Constant), Altruistic Above & Beyond, Altruistic Interests, Altruistic Serve, Altruistic Sacrifice
b. Dependent Variable: Wins

Correlations and model summary related to altruistic calling and losses in Table 49 and Table 50;

Table 49

Correlations SLQ Altruistic Calling: Losses

		Losses	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Pearson Correlation	Losses	1.000	.107	.286	.181	.254
	Altruistic Interests	.107	1.000	.709	.709	.663
	Altruistic Serve	.286	.709	1.000	.855	.701
	Altruistic Sacrifice	.181	.709	.855	1.000	.738
	Altruistic Above & Beyond	.254	.663	.701	.738	1.000
Sig. (1-tailed)	Losses	.	.231	.022*	.104	.038*
	Altruistic Interests	.231	.	.000*	.000*	.000*
	Altruistic Serve	.022*	.000*	.	.000*	.000*
	Altruistic Sacrifice	.104	.000*	.000*	.	.000*
	Altruistic Above & Beyond	.038*	.000*	.000*	.000*	.

Table 50

Model Summary SLQ Altruistic Calling: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.366[a]	.134	.057	2.639	2.394

Note: a. Associated Factors: (Constant), Altruistic Above & Beyond, Altruistic Interests, Altruistic Serve, Altruistic Sacrifice
b. Dependent Variable: Losses

Correlations and model summary related to altruistic calling and post season in Table 51 and Table 52;

Table 51

Correlations SLQ Altruistic Calling: Post Season

		Post Season	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Pearson Correlation	Post Season	1.000	-.042	-.084	.018	.020
	Altruistic Interests	-.042	1.000	.709	.709	.663
	Altruistic Serve	-.084	.709	1.000	.855	.701
	Altruistic Sacrifice	.018	.709	.855	1.000	.738
	Altruistic Above & Beyond	.020	.663	.701	.738	1.000
Sig. (1-tailed)	Post Season	.	.387	.282	.450	.446
	Altruistic Interests	.387	.	.000*	.000*	.000*
	Altruistic Serve	.282	.000*	.	.000*	.000*
	Altruistic Sacrifice	.450	.000*	.000*	.	.000*
	Altruistic Above & Beyond	.446	.000*	.000*	.000*	.

Table 52

Model Summary SLQ Altruistic Calling: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.202[a]	.041	-.044	.891	1.816

Note: a. Associated Factors: (Constant), Altruistic Above & Beyond, Altruistic Interests, Altruistic Serve, Altruistic Sacrifice
b. Dependent Variable: Post Season

Correlations and model summary related to altruistic calling and games started in Table 53 and Table 54;

Table 53

Correlations SLQ Altruistic Calling: Games Started

		Games Started	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Pearson Correlation	Games Started	1.000	.062	.110	.009	.016
	Altruistic Interests	.062	1.000	.709	.709	.663
	Altruistic Serve	.110	.709	1.000	.855	.701
	Altruistic Sacrifice	.009	.709	.855	1.000	.738
	Altruistic Above & Beyond	.016	.663	.701	.738	1.000
Sig. (1-tailed)	Games Started	.	.334	.222	.476	.456
	Altruistic Interests	.334	.	.000*	.000*	.000*

(continued)

	Games Started	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Altruistic Serve	.222	.000*	.	.000*	.000*
Altruistic Sacrifice	.476	.000*	.000*	.	.000*
Altruistic Above & Beyond	.456	.000*	.000*	.000*	.

Table 54

Model Summary SLQ Altruistic Calling: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.203[a]	.041	-.044	7.429	1.637

Note: a. Associated Factors: (Constant), Altruistic Above & Beyond, Altruistic Interests, Altruistic Serve, Altruistic Sacrifice
b. Dependent Variable: Games Started

Correlations and model summary related to altruistic calling and games played in Table 55 and Table 56;

Table 55

Correlations SLQ Altruistic Calling: Games Played

		Games Played	Altruistic Interests	Altruistic Serve	Altruistic Sacrifice	Altruistic Above & Beyond
Pearson Correlation	Games Played	1.000	-.101	-.023	-.053	-.005
	Altruistic Interests	-.101	1.000	.709	.709	.663
	Altruistic Serve	-.023	.709	1.000	.855	.701
	Altruistic Sacrifice	-.053	.709	.855	1.000	.738
	Altruistic Above & Beyond	-.005	.663	.701	.738	1.000
Sig. (1-tailed)	Games Played	.	.242	.437	.357	.486
	Altruistic Interests	.242	.	.000*	.000*	.000*
	Altruistic Serve	.437	.000*	.	.000*	.000*
	Altruistic Sacrifice	.357	.000*	.000*	.	.000*
	Altruistic Above & Beyond	.486	.000*	.000*	.000*	.

Table 56

Model Summary SLQ Altruistic Calling: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.146[a]	.021	-.066	8.665	2.304

Note: a. Associated Factors: (Constant), Altruistic Above & Beyond, Altruistic Interests, Altruistic Serve, Altruistic Sacrifice
b. Dependent Variable: Games Played

SLQ to Emotional Healing. The correlations of the associated factors related to emotional healing (independent variable) within the SLQ to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 57, which include the Pearson Correlations and 1-tailed significance.

Correlations and model summary related to emotional healing and wins in Table 57 and Table 58;

Table 57

Correlations SLQ Emotional Healing: Wins

		Wins	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Wins	1.000	.163	.289	.295	.366
	Emotional Trauma	.163	1.000	.836	.872	.835
	Emotional Emotion Issue	.289	.836	1.000	.878	.829
	Emotional Heal	.295	.872	.878	1.000	.886
	Emotional Mending	.366	.835	.829	.886	1.000
Sig. (1-tailed)	Wins	.	.128	.021*	.019*	.004*
	Emotional Trauma	.128	.	.000*	.000*	.000*
	Emotional Emotion Issue	.021*	.000*	.	.000*	.000*
	Emotional Heal	.019*	.000*	.000*	.	.000*
	Emotional Mending	.004*	.000*	.000*	.000*	.

Table 58

Model Summary SLQ Emotional Healing: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.463[a]	.214	.144	3.987	2.096

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal
b. Dependent Variable: Wins

Correlations and model summary related to emotional healing and losses in Table 59 and Table 60;

Table 59

Correlations SLQ Emotional Healing: Losses

		Losses	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Losses	1.000	.136	.146	.209	.237
	Emotional Trauma	.136	1.000	.836	.872	.835
	Emotional Emotion Issue	.146	.836	1.000	.878	.829
	Emotional Heal	.209	.872	.878	1.000	.886
	Emotional Mending	.237	.835	.829	.886	1.000
Sig. (1-tailed)	Losses	.	.173	.156	.072	.049*
	Emotional Trauma	.173	.	.000*	.000*	.000*
	Emotional Emotion Issue	.156	.000*	.	.000*	.000*
	Emotional Heal	.072	.000*	.000*	.	.000*
	Emotional Mending	.049*	.000*	.000*	.000*	.

Table 60

Model Summary SLQ Emotional Healing: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.281[a]	.079	-.003	2.722	2.275

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal
b. Dependent Variable: Losses

Correlations and model summary related to emotional healing and post season in Table 61 and Table 62;

Table 61

Correlations SLQ Emotional Healing: Post Season

		Post Season	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Post Season	1.000	.089	.065	.089	.107
	Emotional Trauma	.089	1.000	.836	.872	.835
	Emotional Emotion Issue	.065	.836	1.000	.878	.829
	Emotional Heal	.089	.872	.878	1.000	.886
	Emotional Mending	.107	.835	.829	.886	1.000
Sig.(1-tailed)	Post Season	.	.270	.327	.270	.231
	Emotional Trauma	.270	.	.000*	.000*	.000*
	Emotional Emotion Issue	.327	.000*	.	.000*	.000*
	Emotional Heal	.270	.000*	.000*	.	.000*
	Emotional Mending	.231	.000*	.000*	.000*	.

Table 62

Model Summary SLQ Emotional Healing: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.117[a]	.014	-.074	.904	1.809

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal
b. Dependent Variable: Post Season

Correlations and model summary related to emotional healing and games started in Table 63 and Table 64;

Table 63

Correlations SLQ Emotional Healing: Games Started

		Games Started	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Games Started	1.000	.207	.179	.129	.180
	Emotional Trauma	.207	1.000	.836	.872	.835
	Emotional Emotion Issue	.179	.836	1.000	.878	.829
	Emotional Heal	.129	.872	.878	1.000	.886
	Emotional Mending	.180	.835	.829	.886	1.00
Sig. (1-tailed)	Games Started	.	.075	.107	.187	.105
	Emotional Trauma	.075	.	.000*	.000*	.000*
	Emotional Emotion Issue	.107	.000*	.	.000*	.000*
	Emotional Heal	.187	.000*	.000*	.	.000*
	Emotional Mending	.105	.000*	.000*	.000*	.

Table 64

Model Summary SLQ Emotional Healing: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.259[a]	.067	-.016	7.328	1.747

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal. B. Dependent Variable: Games Started

Correlations and model summary related to emotional healing and games played in Table 65 and Table 66;

Table 65

Correlations SLQ Emotional Healing: Games Played

		Games Played	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Games Played	1.000	-.074	.020	-.060	-.064
	Emotional Trauma	-.074	1.000	.836	.872	.835
	Emotional Emotion Issue	.020	.836	1.000	.878	.829
	Emotional Heal	-.060	.872	.878	1.000	.886
	Emotional Mending	-.064	.835	.829	.886	1.00
Sig. (1-tailed)	Games Played	.	.305	.445	.341	.330
	Emotional Trauma	.305	.	.000*	.000*	.000*
	Emotional Emotion Issue	.445	.000*	.	.000*	.000*
	Emotional Heal	.341	.000*	.000*	.	.000*
	Emotional Mending	.330	.000*	.000*	.000*	.

Table 66

Model Summary SLQ Emotional Healing: Games Played

Table 66 Continued

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.192[a]	.037	-.049	8.595	2.359

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal
b. Dependent Variable: Games Played

SLQ to Wisdom. The correlations of the associated factors related to wisdom (independent variable) within the SLQ to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 67, which include the Pearson Correlations and 1-tailed significance.

Correlations and model summary related to wisdom and wins in Table 67 and Table 68;

Table 67

Correlations SLQ Wisdom: Wins

		Wins	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Wins	1.000	.170	.145	.295	.291	.183
	Wisdom Alert	.170	1.000	.839	.767	.748	.730
	Wisdom Consequences	.145	.839	1.000	.753	.662	.697
	Wisdom Awareness	.295	.767	.753	1.000	.928	.769

(continued)

		Wins	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
	Wisdom Happening	.291	.748	.662	.928	1.000	.766
	Wisdom Future	.183	.730	.697	.769	.766	1.00
Sig. (1-tailed)	Wins	.	.119	.157	.019*	.020*	.101
	Wisdom Alert	.119	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.157	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.019*	.000*	.000*	.	.000*	.000*
	Wisdom Happening	.020*	.000*	.000*	.000*	.	.000*
	Wisdom Future	.101	.000*	.000*	.000*	.000*	.

Table 68

Model Summary SLQ Wisdom: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.323[a]	.105	.003	4.305	2.185

Note: a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Wins

Correlations and model summary related to wisdom and losses in Table 69 and Table 70;

Table 69

Correlations SLQ Wisdom: Losses

		Losses	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Losses	1.000	-.089	-.154	.064	.134	.077
	Wisdom Alert	-.089	1.000	.839	.767	.748	.730
	Wisdom Consequences	-.154	.839	1.000	.753	.662	.697
	Wisdom Awareness	.064	.767	.753	1.000	.928	.769
	Wisdom Happening	.134	.748	.662	.928	1.000	.766
	Wisdom Future	.077	.730	.697	.769	.766	1.000
Sig. (1-tailed)	Losses	.	.270	.142	.328	.177	.296
	Wisdom Alert	.270	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.142	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.328	.000*	.000*	.	.000*	.000*
	Wisdom Happening	.177	.000*	.000*	.000*	.	.000*
	Wisdom Future	.296	.000*	.000*	.000*	.000*	.

Table 70

Model Summary SLQ Wisdom: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.377[a]	.142	.045	2.657	2.340

Note: a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Losses

Correlations and model summary related to wisdom and post season in Table 71 and Table 72;

Table 71

Correlations SLQ Wisdom: Post Season

		Post Season	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Post Season	1.000	.119	.167	.086	.003	-.114
	Wisdom Alert	.119	1.000	.839	.767	.748	.730
	Wisdom Consequences	.167	.839	1.000	.753	.662	.697
	Wisdom Awareness	.086	.767	.753	1.000	.928	.769
	Wisdom Happening	.003	.748	.662	.928	1.000	.766
	Wisdom Future	-.114	.730	.697	.769	.766	1.000
Sig. (1-tailed)	Post Season	.	.205	.123	.276	.492	.215
	Wisdom Alert	.205	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.123	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.276	.000*	.000*	.	.000*	.000*
	Wisdom Happening	.492	.000*	.000*	.000*	.	.000*
	Wisdom Future	.215	.000*	.000*	.000*	.000*	.

Table 72

Model Summary SLQ Wisdom: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.404[a]	.163	.068	.842	1.583

Note: a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Post Season

Correlations and model summary related to wisdom and games started in Table 73 and Table 74;

Table 73

Correlations SLQ Wisdom: Games Started

		Games Started	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Games Started	1.000	.061	.006	.060	-.014	.038
	Wisdom Alert	.061	1.000	.839	.767	.748	.730
	Wisdom Consequences	.006	.839	1.000	.753	.662	.697
	Wisdom Awareness	.060	.767	.753	1.000	.928	.769
	Wisdom Happening	-.014	.748	.662	.928	1.000	.766
	Wisdom Future	.038	.730	.697	.769	.766	1.00

(continued)

		Games Started	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Sig. (1-tailed)	Games Started	.	.338	.485	.340	.462	.396
	Wisdom Alert	.338	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.485	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.340	.000*	.000*	.	.000*	.000*
	Wisdom Happening	.462	.000*	.000*	.000*	.	.000*
	Wisdom Future	.396	.000*	.000*	.000*	.000*	.

Table 74

Model Summary SLQ Wisdom: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.262[a]	.069	-.037	7.405	1.500

Note: a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Games Started

Correlations and model summary related to wisdom and games played in Table 75 and Table 76;

Table 75

Correlations SLQ Wisdom: Games Played

		Games Played	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Games Played	1.000	.024	-.150	-.068	-.059	-.002
	Wisdom Alert	.024	1.000	.839	.767	.748	.730
	Wisdom Consequences	-.150	.839	1.000	.753	.662	.697
	Wisdom Awareness	-.068	.767	.753	1.000	.928	.769
	Wisdom Happening	-.059	.748	.662	.928	1.000	.766
	Wisdom Future	-.002	.730	.697	.769	.766	1.00
Sig. (1-tailed)	Games Played	.	.436	.150	.320	.342	.493
	Wisdom Alert	.436	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.150	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.320	.000*	.000*	.	.000*	.000*
	Wisdom Happening	.342	.000*	.000*	.000*	.	.000*
	Wisdom Future	.493	.000*	.000*	.000*	.000*	

Table 76

Model Summary SLQ Wisdom: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.343[a]	.117	.017	8.321	2.105

Note: a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Games Played

SLQ to persuasive mapping. The correlations of the associated factors related to persuasive mapping (independent variable) within the SLQ to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 77, which include the Pearson Correlations and 1-tailed significance.

Correlations and model summary related to persuasive mapping and wins in Table 77 and Table 78;

Table 77

Correlations SLQ Persuasive Mapping: Wins

		Wins	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Pearson Correlation	Wins	1.000	.141	-.028	.223	.192	.201
	Persuasive Reasons	.141	1.000	.658	.624	.642	.659
	Persuasive Dreams	-.028	.658	1.000	.597	.576	.526
	Persuasive Overall	.223	.624	.597	1.000	.816	.844
	Persuasive Convince	.192	.642	.576	.816	1.000	.844

(continued)

		Wins	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
	Persuasive Gifted	.201	.659	.526	.844	.844	1.000
Sig. (1-tailed)	Wins	.	.165	.425	.059	.091	.081
	Persuasive Reasons	.165	.	.000*	.000*	.000*	.000*
	Persuasive Dreams	.425	.000*	.	.000*	.000*	.000*
	Persuasive Overall	.059	.000*	.000*	.	.000*	.000*
	Persuasive Convince	.091	.000*	.000*	.000*	.	.000*
	Persuasive Gifted	.081	.000*	.000*	.000*	.000*	.

Table 78

Model Summary SLQ Persuasive Mapping: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.320[a]	.102	.000	4.310	1.827

Note: a. Associated Factors: (Constant), Persuasive Gifted, Persuasive Dreams, Persuasive Reasons, Persuasive Convince, Persuasive Overall
b. Dependent Variable: Wins

Correlations and model summary related to persuasive mapping and losses in Table 79 and Table 80;

Table 79

Correlations SLQ Persuasive Mapping: Losses

		Losses	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Pearson Correlation	Losses	1.000	.084	-.003	.198	.126	.095
	Persuasive Reasons	.084	1.000	.658	.624	.642	.659
	Persuasive Dreams	-.003	.658	1.000	.597	.576	.526
	Persuasive Overall	.198	.624	.597	1.000	.816	.844
	Persuasive Convince	.126	.642	.576	.816	1.000	.844
	Persuasive Gifted	.095	.659	.526	.844	.844	1.00
Sig. (1-tailed)	Losses	.	.282	.492	.084	.191	.257
	Persuasive Reasons	.282	.	.000*	.000*	.000*	.000*
	Persuasive Dreams	.492	.000*	.	.000*	.000*	.000*
	Persuasive Overall	.084	.000*	.000*	.	.000*	.000*
	Persuasive Convince	.191	.000*	.000*	.000*	.	.000*
	Persuasive Gifted	.257	.000*	.000*	.000*	.000*	1.000

Table 80

Model Summary SLQ Persuasive Mapping: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.289[a]	.084	-.021	2.746	2.397

Note: a. Associated Factors: (Constant), Persuasive Gifted, Persuasive Dreams, Persuasive Reasons, Persuasive Convince, Persuasive Overall

b. Dependent Variable: Losses

Correlations and model summary related to persuasive mapping and post season in Table 81 and Table 82;

Table 81

Correlations SLQ Persuasive Mapping: Post Season

		Post Season	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Pearson Correlation	Post Season	1.000	-.112	.122	-.017	.023	.026
	Persuasive Reasons	-.112	1.000	.658	.624	.642	.659
	Persuasive Dreams	.122	.658	1.000	.597	.576	.526
	Persuasive Overall	-.017	.624	.597	1.000	.816	.844
	Persuasive Convince	.023	.642	.576	.816	1.000	.844
	Persuasive Gifted	.026	.659	.526	.844	.844	1.000
Sig. (1-tailed)	Post Season	.	.220	.200	.453	.437	.429
	Persuasive Reasons	.220	.	.000*	.000*	.000*	.000*
	Persuasive Dreams	.200	.000*	.	.000*	.000*	.000*
	Persuasive Overall	.453	.000*	.000*	.	.000*	.000*
	Persuasive Convince	.437	.000*	.000*	.000*	.	.000*
	Persuasive Gifted	.429	.000*	.000*	.000*	.000*	.

Table 82

Model Summary SLQ Persuasive Mapping: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.322[a]	.103	.002	.872	1.904

Note: a. Associated Factors: (Constant), Persuasive Gifted, Persuasive Dreams, Persuasive Reasons, Persuasive Convince, Persuasive Overall
b. Dependent Variable: Post Season

Correlations and model summary related to persuasive mapping and games started in Table 83 and Table 84;

Table 83

Correlations SLQ Persuasive Mapping: Games Started

		Games Started	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Pearson Correlation	Games Started	1.000	.097	.068	.196	.211	.193
	Persuasive Reasons	.097	1.000	.658	.624	.642	.659
	Persuasive Dreams	.068	.658	1.000	.597	.576	.526
	Persuasive Overall	.196	.624	.597	1.000	.816	.844
	Persuasive Convince	.211	.642	.576	.816	1.000	.844
	Persuasive Gifted	.193	.659	.526	.844	.844	1.00

(continued)

		Games Started	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Sig. (1-tailed)	Games Started	.	.251	.319	.087	.070	.090
	Persuasive Reasons	.251	.	.000*	.000*	.000*	.000*
	Persuasive Dreams	.319	.000*	.	.000*	.000*	.000*
	Persuasive Overall	.087	.000*	.000*	.	.000*	.000*
	Persuasive Convince	.070	.000*	.000*	.000*	.	.000*
	Persuasive Gifted	.090	.000*	.000*	.000*	.000*	.

Table 84

Model Summary SLQ Persuasive Mapping: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.231[a]	.054	-.054	7.465	1.554

Note: a. Associated Factors: (Constant), Persuasive Gifted, Persuasive Dreams, Persuasive Reasons, Persuasive Convince, Persuasive Overall
b. Dependent Variable: Games Started

Correlations and model summary related to persuasive mapping and games played in Table 85 and Table 86;

Table 85

Correlations SLQ Persuasive Mapping: Games Played

		Games Played	Persuasive Reasons	Persuasive Dreams	Persuasive Overall	Persuasive Convince	Persuasive Gifted
Pearson Correlation	Games Played	1.000	-.100	-.205	-.001	-.022	.029
	Persuasive Reasons	-.100	1.000	.658	.624	.642	.659
	Persuasive Dreams	-.205	.658	1.000	.597	.576	.526
	Persuasive Overall	-.001	.624	.597	1.000	.816	.844
	Persuasive Convince	-.022	.642	.576	.816	1.000	.844
	Persuasive Gifted	.029	.659	.526	.844	.844	1.000
Sig. (1-tailed)	Games Played	.	.245	.077	.497	.441	.421
	Persuasive Reasons	.245	.	.000*	.000*	.000*	.000*
	Persuasive Dreams	.077	.000*	.	.000*	.000*	.000*
	Persuasive Overall	.497	.000*	.000*	.	.000*	.000*
	Persuasive Convince	.441	.000*	.000*	.000*	.	.000*
	Persuasive Gifted	.421	.000*	.000*	.000*	.000*	.

Table 86

Model Summary SLQ Persuasive Mapping: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.267[a]	.071	-.034	8.536	2.275

Note: a. Associated Factors: (Constant), Persuasive Gifted, Persuasive Dreams, Persuasive Reasons, Persuasive Convince, Persuasive Overall
b. Dependent Variable: Games Played

SLQ to organizational stewardship. The correlations of the associated factors related to organizational stewardship (independent variable) within the SLQ to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 87, which include the Pearson Correlations and 1-tailed significance.

Correlations and model summary related to organizational stewardship and wins in Table 87 and Table 88;

Table 87

Correlations SLQ Organizational Stewardship: Wins

		Wins	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Pearson Correlation	Wins	1.000	.098	.135	-.048	-.012	.072
	OrgSteward Moral	.098	1.000	.808	.840	.617	.803
	OrgSteward BuildCommunity	.135	.808	1.000	.768	.749	.691

(continued)

		Wins	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
	OrgSteward Society	-.048	.840	.768	1.000	.613	.761
	OrgSteward Campus	-.012	.617	.749	.613	1.000	.687
	OrgSteward Future	.072	.803	.691	.761	.687	1.000
Sig. (1-tailed)	Wins	.	.248	.174	.370	.467	.310
	OrgSteward Moral	.248	.	.000*	.000*	.000*	.000*
	OrgSteward BuildCommunity	.174	.000*	.	.000*	.000*	.000*
	OrgSteward Society	.370	.000*	.000*	.	.000*	.000*
	OrgSteward Campus	.467	.000*	.000*	.000*	.	.000*
	OrgSteward Future	.310	.000*	.000*	.000*	.000*	.

Table 88

Model Summary SLQ Organizational Stewardship: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.362[a]	.131	.032	4.241	2.019

Note: a. Associated Factors: (Constant), OrgSteward Future, OrgSteward Campus, OrgSteward Society, OrgSteward BuildCommunity, OrgSteward Moral
b. Dependent Variable: Wins

Correlations and model summary related to organizational stewardship and losses in Table 89 and Table 90;

Table 89

Correlations SLQ Organizational Stewardship: Losses

		Losses	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Pearson Correlation	Losses	1.000	.058	-.033	-.024	-.232	-.039
	OrgSteward Moral	.058	1.000	.808	.840	.617	.803
	OrgSteward BuildCommunity	-.033	.808	1.000	.768	.749	.691
	OrgSteward Society	-.024	.840	.768	1.000	.613	.761
	OrgSteward Campus	-.232	.617	.749	.613	1.000	.687
	OrgSteward Future	-.039	.803	.691	.761	.687	1.000
Sig. (1-tailed)	Losses	.	.345	.410	.434	.052	.393
	OrgSteward Moral	.345	.	.000*	.000*	.000*	.000*
	OrgSteward BuildCommunity	.410	.000*	.	.000*	.000*	.000*
	OrgSteward Society	.434	.000*	.000*	.	.000*	.000*
	OrgSteward Campus	.052	.000*	.000*	.000*	.	.000*
	OrgSteward Future	.393	.000*	.000*	.000*	.000*	.

Table 90

Model Summary SLQ Organizational Stewardship: Losses

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.359[a]	.129	.030	2.678	2.405

Note: a. Associated Factors: (Constant), OrgSteward Future, OrgSteward Campus, OrgSteward Society, OrgSteward BuildCommunity, OrgSteward Moral
b. Dependent Variable: Losses

Correlations and model summary related to organizational stewardship and post season in Table 91 and Table 92;

Table 91

Correlations SLQ Organizational Stewardship: Post Season

		Post Season	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Pearson Correlation	Post Season	1.000	.242	.223	.254	.383	.292
	OrgSteward Moral	.242	1.000	.808	.840	.617	.803
	OrgSteward BuildCommunity	.223	.808	1.000	.768	.749	.691
	OrgSteward Society	.254	.840	.768	1.000	.613	.761
	OrgSteward Campus	.383	.617	.749	.613	1.000	.687
	OrgSteward Future	.292	.803	.691	.761	.687	1.000

(continued)

		Post Season	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Sig. (1-tailed)	Post Season	.	.045*	.060	.038*	.003*	.020*
	OrgSteward Moral	.045*	.	.000*	.000*	.000*	.000*
	OrgSteward BuildCommunity	.060	.000*	.	.000*	.000*	.000*
	OrgSteward Society	.038*	.000*	.000*	.	.000*	.000*
	OrgSteward Campus	.003*	.000*	.000*	.000*	.	.000*
	OrgSteward Future	.020*	.000*	.000*	.000*	.000*	.

Table 92

Model Summary SLQ Organizational Stewardship: Post Season

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.411[a]	.169	.074	.839	1.721

Note: a. Associated Factors: (Constant), OrgSteward Future, OrgSteward Campus, OrgSteward Society, OrgSteward BuildCommunity, OrgSteward Moral
b. Dependent Variable: Post Season

Correlations and model summary related to organizational stewardship and games started in Table 93 and Table 94;

Table 93

Correlations SLQ Organizational Stewardship: Games Started

		Games Started	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Pearson Correlation	Games Started	1.000	.078	.093	.104	.096	.015
	OrgSteward Moral	.078	1.000	.808	.840	.617	.803
	OrgSteward BuildCommunity	.093	.808	1.000	.768	.749	.619
	OrgSteward Society	.104	.840	.768	1.000	.613	.761
	OrgSteward Campus	.096	.617	.749	.613	1.000	.687
	OrgSteward Future	.015	.803	.691	.761	.687	1.00
Sig. (1-tailed)	Games Started	.	.295	.259	.236	.254	.459
	OrgSteward Moral	.295	.	.000*	.000*	.000*	.000*
	OrgSteward BuildCommunity	.259	.000*	.	.000*	.000*	.000*
	OrgSteward Society	.236	.000*	.000*	.	.000*	.000*
	OrgSteward Campus	.254	.000*	.000*	.000*	.	.000*
	OrgSteward Future	.459	.000*	.000*	.000*	.000*	.

Table 94

Model Summary SLQ Organizational Stewardship: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.173[a]	.030	-.080	7.557	1.696

Note: a. Associated Factors: (Constant), OrgSteward Future, OrgSteward Campus, OrgSteward Society, OrgSteward BuildCommunity, OrgSteward Moral
b. Dependent Variable: Games Started

Correlations and model summary related to organizational stewardship and games played in Table 95 and Table 96;

Table 95

Correlations SLQ Organizational Stewardship: Games Played

		Games Played	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Pearson Correlation	Games Played	1.000	-.074	.029	-.048	-.115	-.016
	OrgSteward Moral	-.074	1.000	.808	.840	.617	.803
	OrgSteward BuildCommunity	.029	.808	1.000	.768	.749	.619
	OrgSteward Society	-.048	.840	.768	1.000	.613	.761
	OrgSteward Campus	-.115	.617	.749	.613	1.000	.687
	OrgSteward Future	-.016	.803	.691	.761	.687	1.00

(continued)

		Games Played	OrgSteward Moral	OrgSteward BuildCommunity	OrgSteward Society	OrgSteward Campus	OrgSteward Future
Sig. (1-tailed)	Games Played	.	.306	.422	.370	.214	.457
	OrgSteward Moral	.306	.	.000*	.000*	.000*	.000*
	OrgSteward BuildCommunity	.422	.000*	.	.000*	.000*	.000*
	OrgSteward Society	.370	.000*	.000*	.	.000*	.000*
	OrgSteward Campus	.214	.000*	.000*	.000*	.	.000*
	OrgSteward Future	.457	.000*	.000*	.000*	.000*	.

Table 96

Model Summary SLQ Organizational Stewardship: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.303[a]	.092	-.011	8.440	2.161

Note: a. Associated Factors: (Constant), OrgSteward Future, OrgSteward Campus, OrgSteward Society, OrgSteward Build Community, OrgSteward Moral
b. Dependent Variable: Games Played

Discussion relative to the SLQ will be discussed further in Chapter 5.

SQ3: Team and Individual

The third sub question (SQ3) states: To what extent, if at all, does the NCAA identified sport of the athlete present as an associated factor in individual performance and team performance?

To evaluate this question and the hypothesis associated with SQ3 the team and individual performance will be evaluated and given as related to the eight teams' historical statistics found on an open public site. The outcome at the team level, wins, losses, and post season appearances as well as the individual level, games started, and games played will be highlighted. Although each team can have multiple athletes within the subset of the team at the collegiate level, this study only focused on those participants who finished the questionnaire completely.

The eight teams are highlighted in the tables below following the mean and standard deviations of each dependent variable, descriptive statistics are given in Table 97. The means and standard deviations (M, SD) of wins (13.70, 4.311), losses (4.72, 2.718), post season appearances (1.88, .872), games started (5.52, 7.271), and games played (11.14, 8.393) are given as overall indicators and are presented as to assure accuracy. Post-season appearances appear as 1=yes appeared, 2= no did not appear, 3= not applicable as COVID-19 NCAA cancellations so post-season play was not available. The correlation tables will also show 1-tailed significance at the .05 level and those with '*' are shown to be statistically significant.

Table 97

Descriptive Statistics for All Teams

	Mean	Std. Deviation	N
Sport	3.64	2.220	50
Wins	13.70	4.311	50
Losses	4.72	2.718	50
Post Season*	1.88	.872	50
Games Started	5.52	7.271	50
Games Played	11.14	8.393	50

The model summary for sport as related to all associated factors, including r (.692) and r^2 (.479) values, is given in Table 98.

Table 98

Model Summary of All Sports to Associated Factors

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.692[a]	.479	.419	1.692	.397

Note: a. Associated Factors: (Constant), Games Played, Losses, Post Season, Wins, Games Started b. Dependent Variable: Sport

The correlations for sport as related to all associated factors given in Table 99.

Table 99

Correlations of All Sports to Associated Factors

		Sport	Wins	Losses	Post Season	Games Started	Games Played
Pearson Correlation	Sport	1.000	.082	.551	-.592	.114	.128
	Wins	.082	1.000	.444	-.015	.245	.380
	Losses	.551	.444	1.000	-.445	.170	.230
	Post Season	-.592	-.015	-.445	1.000	-.058	-.293
	Games Started	.114	.245	.170	-.058	1.000	.679
	Games Played	.128	.380	.230	-.293	.679	1.000
Sig. (1-tailed)	Sport	.	.285	.000*	.000*	.215	.189
	Wins	.285	.	.001*	.458	.043*	.003*
	Losses	.000*	.001*	.	.001*	.119	.054
	Post Season	.000*	.458	.001*	.	.346	.019*
	Games Started	.215	.043*	.119	.346	.	.000*
	Games Played	.189	.003*	.054	.019*	.000*	.

Each team outcome is given in relation to the 2019-2020 collegiate athletics season. Each team highlights the outcomes of wins, losses, and post-season appearances. Those teams which had their season shortened amid the COVID-19 pandemic and NCAA sanctions are indicated by an (*).

Men's Baseball. The descriptive statistics for Men's Baseball (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 100, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 100

Men's Baseball

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Men's Baseball	Mean	15.00	3.00	3.00	5.69	9.31
	N	13	13	13	13	13
	Std. Deviation	.000	.000	.000	6.945	7.158
	Median	15.00	3.00	3.00	2.00	9.00
	Kurtosis	.	.	.	-.610	-1.813
	Skewness	.	.	.	1.006	-.029

Men's Basketball. The descriptive statistics for Men's Basketball (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 101, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 101

Men's Basketball

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Men's Basketball	Mean	21.00	4.00	1.00	6.50	21.25
	N	4	4	4	4	4
	Std. Deviation	.000	.000	.000	5.802	14.361
	Median	21.00	4.00	1.00	6.00	27.50
	Kurtosis	.	.	.	1.070	3.412
	Skewness	.	.	.	.491	-1.846

Men's Football. The descriptive statistics for Men's Football (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 102, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 102

Men's Football

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Men's Football	Mean	8.00	3.00	2.00	3.42	6.92
	N	12	12	12	12	12
	Std. Deviation	.000	.000	.000	4.562	4.833
	Median	8.00	3.00	2.00	1.00	9.50
	Kurtosis	.	.	.	-.671	-1.549
	Skewness	.	.	.	1.069	-.652

Men's Soccer. The descriptive statistics for Men's Soccer (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 103, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 103

Men's Soccer

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Men's Soccer	Mean	11.00	8.00	1.00	6.67	13.67
	N	3	3	3	3	3
	Std. Deviation	.000	.000	.000	8.145	3.786
	Median	11.00	8.00	1.00	3.00	12.00
	Kurtosis	.	.	.	.	.
	Skewness	.	.	.	1.615	1.597

Women's Basketball. The descriptive statistics for Women's Basketball (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 104, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 104

Women's Basketball

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Women's Basketball	Mean	18.00	12.00	1.00	6.00	14.00
	N	4	4	4	4	4
	Std. Deviation	.000	.000	.000	12.000	12.961

(continued)

		Wins	Losses	Post Season	Games Started	Games Played
	Median	18.00	12.00	1.00	.00	13.00
	Kurtosis	.	.	.	4.000	-1.040
	Skewness	.	.	.	2.000	.367

Women's Soccer. The descriptive statistics for Women's Soccer (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 105, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 105

Women's Soccer

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Women's Soccer	Mean	12.00	4.00	1.00	3.89	11.22
	N	9	9	9	9	9
	Std. Deviation	.000	.000	.000	7.721	7.032
	Median	12.00	4.00	1.00	.00	7.00
	Kurtosis	.	.	.	.765	-1.758
	Skewness	.	.	.	1.624	.484

Women's Softball. The descriptive statistics for Women's Softball (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 106, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 106

*Women's Softball**

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Women's Softball	Mean	19.00	7.00	3.00	6.00	10.00
	N	3	3	3	3	3
	Std. Deviation	.000	.000	.000	5.568	3.606
	Median	19.00	7.00	3.00	7.00	9.00
	Kurtosis	.	.	.	.	.
	Skewness	.	.	.	-.782	1.152

Women's Volleyball. The descriptive statistics for Women's Volleyball (independent variable) as related to the dependent variables (games played, games started, wins, losses, and post season appearance) are given in Table 107, which include mean, number of games (*N*), standard deviations, median, kurtosis, and skewness.

Table 107

Women's Volleyball

Sport Description		Wins	Losses	Post Season	Games Started	Games Played
Women's Volleyball	Mean	20.00	8.00	1.00	19.00	20.00
	N	2	2	2	2	2
	Std. Deviation	.000	.000	.000	11.314	11.314
	Median	20.00	8.00	1.00	19.00	20.00
	Kurtosis	.	.	.	.	.
	Skewness	.	.	.	.	.

Discussion relative to the team and individual outcome will be discussed further in Chapter 5.

Chapter Summary

The chapter summarized the data obtained in the research study focused on the CART-Q (Jowett, 2009a) and SLQ (Barbuto & Wheeler, 2006) as well as the outcomes from the 2019-2020 athletic season. Key findings resulting from the data that will be discussed in Chapter 5 are:

- F 1. Commitment of the head coach is the largest factor in team wins.
- F 2. Individual athletes' largest factor, closeness, is related to games started.
- F 3. Emotional healing from the coach is the most important factor to overall team wins.
- F 4. Wisdom of the head coach is the largest factor to how many games the individual athlete played.
- F 5. There is little difference between each team and the individual or team outcome.

Chapter 5: Discussion of Findings

Chapter Overview

Chapter 5 will discuss the findings from the study on perceptions of the coach-athlete relationship from *n*= 50 collegiate competitive athletes done during COVID-19 and the NCAA shutdown in Spring of 2020. The conclusions, implications, recommendations, and evaluation from the researcher's perspective will frame the chapter. The five key findings resulting from the data in Chapter 4 will highlight evidence to answer the sub-questions and either back or disprove the hypotheses given earlier in this dissertation found in Table 2. The five key findings this chapter will focus on are:

- F 1. Commitment of the head coach is the largest factor in team wins.
- F 2. Individual athletes' largest factor, closeness, is related to games started.
- F 3. Emotional healing from the coach is the most important factor to overall team wins.
- F 4. Wisdom of the head coach is the largest factor to how many games the individual athlete played.
- F 5. There is little difference between each team and the individual or team outcome.

Context

In global leadership, there is limited amounts of behavioral based literature linked with quantifiable outcomes being done in the competitive athletic arena. In addition, limited data exists on the perceived servant leadership of a coach and outcome attainment as related to global leadership and change during levels of competition (Burton, & Welty Peachey, 2013; Burton et al., 2017).

The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

The overarching question that guides this study is:

RQ: To what extent, if at all, do coach-student athlete relationships present as associated factors in individual and team performance?

The sub-questions that guide this study are:

SQ1: To what extent, if at all, do three aspects of the coach-athlete relationship (3C)- closeness, commitment, and complementarity- present as associated factors in individual performance and team performance?

SQ2: To what extent, if at all, do five aspects of head coach servant leadership-altruistic calling, emotional healing, wisdom, persuasive mapping, and organizational stewardship- present as associated factors in individual performance and team performance?

SQ3: To what extent, if at all, does the NCAA identified sport of the athlete present as an associated factor in individual performance and team performance?

Methodology

The methodology was correlational in design and was accomplished by adapting two surveys related to athlete perceptions, the Servant Leadership Questionnaire (SLQ; Barbuto & Wheeler, 2006), the Coach-Athlete Relationship Questionnaire (CART-Q; Jowett & Chaundy, 2004), and additional demographical questions administered through the online Qualtrics software. This information was then compared to the historical data related to outcome, at both team and individuals, which is published on a public site. The methods employed used the perception-based adapted survey, historical statistics, and descriptive statistics using multivariate analysis. The surveys attempted to find perceptions of the collegiate competitive athlete on the head coach as related to the two surveys. Descriptive statistics using multivariate analysis

techniques was conducted to evaluate the differences between the dependent variables simultaneously (Salkind, 2010).

Findings

The CART-Q (Jowett, 2009a) and SLQ (Barbuto & Wheeler, 2006) was distributed to a population of student athletes on a Division II NCAA university campus during the first weeks of the COVID-19 Pandemic and mandatory quarantine. The survey was distributed at a time where the NCAA had just declared that all sport would be complete and finished for the 2019-20 season. Some spring sports were affected like that of Men's Baseball and Women's Softball and had just finished the second week of pre-season play and had yet to play a conference game or series. The survey had several indicators of success and several factors which could be correlated to the timing of the survey. The correlation tables will also show 1-tailed significance at the .05 level and those with '*' are shown to be statistically significant. The sample size was N= 100 and of that n= 50 are discussed.

Within the CART-Q results and the SLQ results of this study it is reported several of the associated factors were correlated and could be contributed to outcome, both at team and individual levels. The CART-Q results show (r, r^2) values for each outcome as wins (.541, .293), losses (.464, .215), post-season appearance (.519, .270), starts (.523, .273), and played in game (.291, .085). The SLQ results show (r, r^2) values for each outcome as wins (.839, .703), losses (.729, .531), post-season appearance (.693, .481), starts (.574, .329), and played in game (.695, .484). Further analysis was done for each of the individual sections of each questionnaire and was shown to have Pearson Correlation (r) values within the CART-Q at the low-end (r= .134, r^2=.013) for commitment as related to losses at the team level and a high of (r= .406, r^2=.165) commitment as related to wins. At the individual level the CART-Q Pearson

Correlations were at the low-end (r= .099, r^2=.010) for complementarity as related to playing in. game and at the high end (r= .258, r^2=.067) for closeness as related to starting in a game or match. The SLQ Pearson Correlations (*r)* values at the low-end (r= .177, r^2=.014) for emotional healing as related to wins and a high of (r= .463, r^2=.214) for emotional healing as related to wins both at the team level. At the individual level the SLQ Pearson Correlations were at the low-end (r= .146, r^2=.021) for altruistic calling as related to playing in a game and at the high end (r= .343, r^2=.117) for wisdom as related to playing in a game or match.

Other values for each section and overall values are given in Chapter 4. For the purpose of the study and for the final overview of the findings, five findings will be presented, discussed, and linked to the overall hypothesis of the study.

F 1. Commitment of the head coach is the largest factor in team wins. The largest factor found for outcome as related to the CART-Q questionnaire at the team level was that of commitment. Commitment was at the high end as related to the team outcome of wins. This correlation shows to be the greatest indicator of success among the other items found in the questionnaire as related to this study and the focus of team outcomes. Standard multivariate analysis was complete, and commitment has a medium ES and significantly correlated to wins as seen in Table 22 with an *r* value of .406 and an r^2 value of .165.

Table 22

Model Summary CART-Q Commitment: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.406[a]	.165	.111	4.065	2.075

Note: a. Associated Factors: (Constant), Commitment Career, Commitment Close, Commitment Commit

b. Dependent Variable: Wins

Related to the validity and reliability studies done by Jowett (2009) it was shown that the first study Jowett found the highest *r* value related to closeness and commitment was at .970. Although the current study in this dissertation did not show this high of an *r* value, indicators of having similarities to the second study by Jowett is present.

In Jowett's second study factors as related to satisfaction with training, performance, and treatment from the athlete perspective were focused on and the *r* value for commitment was shown to range from a low of .340 as related to performance and a high of .630 as related to training (2009). Since the current study in this paper is relating the CART-Q to outcome attainment the statistics related to the second study area a more significant indicator and are related in terms of statistics more than the previous. Although the current dataset is significantly lower in numbers of return (*n*=50) there are still responses from all eight teams showing representation across the entire population.

When looking at the success as related to wins, this study also shows which question is most significant within the commitment area. In Table 21, showing the correlation between wins and the three questions found within commitment as related to wins, the Pearson Correlation shows the highest indicator is the question related to commitment close, which is "My coach is close to me" showing *r* =.286. This question is the best indicator related to the Pearson Correlation.

Table 21

Correlations CART-Q Commitment: Wins

		Wins	Commitment Commit	Commitment Close	Commitment Career
Pearson Correlation	Wins	1.000	.111	.286	.279
	Commitment Commit	.111	1.000	.790	.847
	Commitment Close	.286	.790	1.000	.826
	Commitment Career	.279	.847	.826	1.000
Sig. (1-tailed)	Wins	.	.222	.022*	.025*
	Commitment Commit	.222	.	.000*	.000*
	Commitment Close	.022*	.000*	.	.000*
	Commitment Career	.025*	.000*	.000*	.

F 2. Individual athletes' largest factor, closeness, is related to games started. The largest factor for outcome as related to the CART-Q questionnaire at the individual level was that of closeness as related to games started. This correlation shows to be the greatest indicator of success among the other items found in the questionnaire as related to this study at the individual outcome level. Standard multivariate analysis was complete, and closeness has a small ES and has a small correlation to wins as seen in Table 18 with an *r* value of .258 and an r^2 value of .067.

Table 18

Model Summary CART-Q Closeness: Games Started

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.258[a]	.067	-.016	7.330	1.684

Note: a. Associated Factors: (Constant), Closeness Appreciate, Closeness Like, Closeness Trust, Closeness Respect

b. Dependent Variable: Games Started

In Jowett's second study factors as related to satisfaction with training, performance, and treatment from the athlete perspective were focused on and the r value for closeness was an overall for athlete sample of *n*= 189, *r*= .860 (2009). The second Jowett (2009) study showed meta-closeness to performance to be *r*= .360 for a sample of *n*= 189 and as related to the population of the current study in this paper where *n*=50 and *r*= .258. This comparative shows that an athlete and their satisfaction and belief is similar in performance as to games started which is related to success in performance.

An athlete needs to participate in order to perform. When looking at the individual outcome of success as related to games started, the present study in this paper shows which question is most significant within the closeness area. In Table 17, showing the correlation between games started and the four questions found within closeness as related to games started at the individual level, the Pearson Correlation shows the highest indicator within the area of closeness is the question closeness respect. The specific question under closeness respect is "My coach respects me," even though it is a small EQ and correlation at *r* = -.107 with the significance at a *p* = .230 it is the question with the greatest *r* value and shows the two items to be negatively correlated.

Table 17

Correlations CART-Q Closeness: Games Started

		Games Started	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
Pearson Correlation	Games Started	1.000	.005	-.010	-.107	-.052
	Closeness Like	.005	1.000	.752	.892	.676
	Closeness Trust	-.010	.752	1.000	.763	.678

(continued)

		Games Started	Closeness Like	Closeness Trust	Closeness Respect	Closeness Appreciate
	Closeness Respect	-.107	.892	.763	1.000	.773
	Closeness Appreciate	-.052	.676	.678	.773	1.000
Sig. (1-tailed)	Games Started	.	.487	.473	.230	.359
	Closeness Like	.487	.	.000*	.000*	.000*
	Closeness Trust	.473	.000*	.	.000*	.000*
	Closeness Respect	.230	.000*	.000*	.	.000*
	Closeness Appreciate	.359	.000*	.000*	.000*	.

F 3. Emotional healing from the coach is the most important factor to overall team wins. The most important factor at the team level using the SLQ (Barbuto & Wheeler, 2006) was related emotional healing to wins. This correlation shows to be the greatest indicator of success among the other items found in the questionnaire as related to this study and team outcome. Standard multivariate analysis was complete, and emotional healing has a large ES and significantly correlated to wins as seen in Table 58 with an *r* value of .463 and an r^2 value of .214.

Table 58

Model Summary SLQ Emotional Healing: Wins

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.463[a]	.214	.144	3.987	2.096

Note: a. Associated Factors: (Constant), Emotional Mending, Emotional Emotion Issue, Emotional Trauma, Emotional Heal

b. Dependent Variable: Wins

In the study by Barbuto and Wheeler (2006) correlations between emotional healing and extra effort of leaders was found to have a small positive correlation of .23, between emotional healing and satisfaction a medium positive correlation of .44, and of emotional healing and effectiveness a medium-large positive correlation of .47. the present study at .463 is similar in outcome for emotional healing and wins at the team level.

When looking at the team outcome of wins as related to emotional healing in this study the questions in Table 57, show the correlation between wins and the four questions found within study, The Pearson Correlations show the highest indicator within the area of is emotional mending related to wins is a high positive ES and correlation at .366. The specific question was "My coach is one that could help me mend my hard feelings."

Table 57

Correlations SLQ Emotional Healing: Wins

		Wins	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Pearson Correlation	Wins	1.000	.163	.289	.295	.366
	Emotional Trauma	.163	1.000	.836	.872	.835
	Emotional Emotion Issue	.289	.836	1.000	.878	.829
	Emotional Heal	.295	.872	.878	1.000	.886
	Emotional Mending	.366	.835	.829	.886	1.000
Sig. (1-tailed)	Wins	.	.128	.021*	.019*	.004*
	Emotional Trauma	.128	.	.000*	.000*	.000*
	Emotional Emotion Issue	.021*	.000*	.	.000*	.000*

(continued)

	Wins	Emotional Trauma	Emotional Emotion Issue	Emotional Heal	Emotional Mending
Emotional Heal	.019*	.000*	.000*	.	.000*
Emotional Mending	.004*	.000*	.000*	.000*	.

F 4. Wisdom of the head coach is the largest factor to how many games the individual athlete played. The most important factor at the individual level using the SLQ (Barbuto & Wheeler, 2006) was related between wisdom to games played. This correlation shows to be the greatest indicator of success among the other items found in the questionnaire as related to this study and individual outcome. Standard multivariate analysis was complete, and wisdom has a medium ES and correlated to wins as seen in Table 76 with an *r* value of .343 and an r^2 value of .117.

Table 76

Model Summary SLQ Wisdom: Games Played

Model	*r*	r^2	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.343[a]	.117	.017	8.321	2.105

a. Associated Factors: (Constant), Wisdom Future, Wisdom Consequences, Wisdom Happening, Wisdom Alert, Wisdom Awareness
b. Dependent Variable: Games Played

In the study by Barbuto and Wheeler (2006) correlations between wisdom and extra effort of leaders was found to have a small positive correlation of .27, between wisdom and satisfaction a medium positive correlation of .42, and of wisdom and effectiveness a medium to large positive

correlation of .49. the present study at .343 is similar in outcome for wisdom and games played at the individual level.

When looking at the individual outcome of games played as related to wisdom in this study the questions in Table 75 show the correlation between wins and the five questions found within study. The Pearson Correlations show the highest indicator within the area is wisdom consequences related to games played and has a small negative ES and correlation at -.150. The specific question was “This person is good at anticipating the consequences of decisions.”

Table 75

Correlations SLQ Wisdom: Games Played

		Games Played	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Pearson Correlation	Games Played	1.000	.024	-.150	-.068	-.059	-.002
	Wisdom Alert	.024	1.000	.839	.767	.748	.730
	Wisdom Consequences	-.150	.839	1.000	.753	.662	.697
	Wisdom Awareness	-.068	.767	.753	1.000	.928	.769
	Wisdom Happening	-.059	.748	.662	.928	1.000	.766
	Wisdom Future	-.002	.730	.697	.769	.766	1.00
Sig. (1-tailed)	Games Played	.	.436	.150	.320	.342	.493
	Wisdom Alert	.436	.	.000*	.000*	.000*	.000*
	Wisdom Consequences	.150	.000*	.	.000*	.000*	.000*
	Wisdom Awareness	.320	.000*	.000*	.	.000*	.000*

(continued)

	Games Played	Wisdom Alert	Wisdom Consequences	Wisdom Awareness	Wisdom Happening	Wisdom Future
Wisdom Happening	.342	.000*	.000*	.000*	.	.000*
Wisdom Future	.493	.000*	.000*	.000*	.000*	

F 5. There is little difference between each team and the individual or team outcome.

Teams within college athletics are responsible for not only individual workouts and individual best effort but also overall team effort and wins. The head coach is the one who not only is accountable to the athletes on the team but also to the administration for overall positive winning teams. Since this study was done at a competitive Division II institution each of the eight teams had an overall positive record when it comes to wins and is shown in Table 108 which shows each sport, the percentage of wins, and whether each sport went to post-season or not. Men's Baseball and Women's Softball were impacted by the COVID-10 pandemic, quarantine, and the NCAA shutdown at the beginning of the Spring sport season, so they are represented with a 3 and (*) for post-season because of the aforementioned pandemic. Each of the sports has a positive win record with most of the team sports in the 70-80% range of wins. The difference between the top, Men's Basketball, and bottom, Men's Football, wins percentage is 26% but is still a positive indicator of success because of the ability to go to post-season. Football is voted into a post-season appearance and is also compared differently in terms of success because of the difference in conference the team plays in.

Table 108

Team Outcome

Sport	% Wins	Post Season
Men's Baseball*	83%	3=N/A
Men's Basketball	84%	1= Yes
Men's Soccer	58%	1= Yes
Men's Football	73%	2=No
Women's Basketball	60%	1=Yes
Women's Softball*	73%	3=N/A
Women's Soccer	75%	1=Yes
Women's Volleyball	71%	1=Yes

When comparing the differences between NCAA identified gender, men's teams versus women's teams there are a few take-away's when comparing the two NCAA identified genders at the team level. One interesting fact is the difference between the top and bottom percentages as related to Men's or Women's NCAA indicated sport and wins. Men's range is 26% difference between top and bottom and Women's is only 15% difference. Another interesting fact is the difference between the post-season appearances, as all of the Women's teams made it to post-season, if we take out Women's Softball. Although these are interesting take-aways they cannot be equally compared as each sport has multiple factors outside of gender and competition so each sport cannot be equally compared at certain levels and indicators outside of those already given in this study.

When comparing each of the teams and the individual outcomes there are various factors which can also contribute to the differences found. In Table 109 it shows the differences in each team as related to the individual outcomes, games started and appearances, given in both means and standard deviation. Total games played for the season were also given as comparisons. Although there are many differences between each sport there are multiple considerations to take into account. For example, on the Men's Baseball team there is a 40-man active roster. Of those

40, 13 answered the questionnaire, and the (*M*, SD) for games started (5.69, 6.945) and game appearances (9.31, 7.158) are significantly different but could be attribute to the amount of players who can start and how many rotate into and out of positions during the games. Some positions, for example pitchers, only play once in a four-game series and could significantly impact the (*M*, SD) results. Since this is the case, little difference is attributed between teams since no two teams could be compared equally.

Table 109

Sport and Total Games Played, Games Started, & Appearances

Sport (n)	Total Games Played	Game Start (Mean, SD)	Appearances (Mean, SD)
Men's Baseball* (13)	18	(5.69, 6.945)	(9.31, 7.158)
Men's Basketball (5)	25	(6.50, 5.802)	(5.902, 14.361)
Men's Soccer (3)	19	(6.67, 8.145)	(13.67, 3.786)
Men's Football (14)	11	(3.42, 4.562)	(6.92, 4.833)
Women's Basketball (5)	30	(6.00, 12.00)	(14.00, 12.961)
Women's Softball* (3)	26	(6.00, 5.568)	(10.00, 3.606)
Women's Soccer (10)	16	(3.89, 7.721)	(11.22, 7.032)
Women's Volleyball (2)	28	(19.00, 11.314)	(20.00, 11.314)

Conclusions

In competitive sport the relationships between coaches and athletes is critical to success both for the team and for the individual. Three conclusions will be discussed and linked to the five findings discussed above.

Conclusion 1. A winning head coach values the individual as well as the athlete.

Coaches create value within their team to not only compete but also to make positive contributions to the athlete and their life. Findings 1 (F1) and 2 (F2) both support this conclusion. In F1 the commitment of the head coach to their team was a contributor to success but was largely based on the ability of the coach to see the athlete at an individual level. The athlete

believes that the coach not only is close to the athlete and knows them for who they are but also that the coach is highly committed to the individual and in turn the team. When these two factors are considered the coach is able to impact the athlete at the individual level and quite possibly could give the athlete and in term the team more support through confidence and recognition. Being committed to individuals within sport could be a greater factor than having compiled a group of top-level individuals as the head coaches have been said to be some of the best mentors in an athlete's life during and after competition and shows by the results of the study.

In F2 a head coach who is perceived as close to the athlete likes the athlete and respects the athlete is then able to impact the success of the athlete on the field. In order to know the athlete at this level, more interactions between the coach and player must happen or more focus on the athlete during practice and games are elevated. Head coaches are able to focus on various individuals within the team but not all individuals collectively at the same time unless from a heightened arena type of view or dependent on team size. Being from a heightened arena view and not at the individual could take away from individual meetings and focus on individual and team. For a head coach to get to know a player at the level of closeness, which again is a positive indicator of success, the head coach will need to focus on individuals repeatedly and may in turn not be focused on others. This factor is important to note as the role of an assistant coach or several assistant coaches could come into play for larger teams as a contributor to possible success or loss so that the head coach and assistants collectively could focus on more individuals.

Conclusion 2. A head coach who impacts individual athlete success is someone the athlete relies upon for life events as well as for sport. Coaches are relied upon outside of sport and even after the athlete has finished competing. A coach can provide direction but has been shown to also listen intently for suggestions and ideas from the individuals and team. Findings 3

(F3) and 4 (F4) both support this conclusion. In F3 the emotional healing the coach provides is an important factor to success and outcomes. The contributions to support this claim are that a coach is seen as someone the athlete can go to gain help and understand how to mend feelings with others. The other component is that the coach is someone who the athlete can rely upon if there is trauma or other such extremes when the athlete is in crisis. Both conclusions are reliant upon the coach stepping up in a way that is outside the normative prescriptive of game day and practice. The coach truly sees the athlete as a person or individual and assumes the role of a confidant and mentor. The coach is emotionally available for the athlete and can be relied upon during times of stress outside of the typical stress of competition.

In F4 the coach is seen as one who has wisdom and understanding for events in the future. Decisions the coach makes are believed to be thought through and the coach is seen as knowing and understanding not only the consequences of the decisions but also the impact and outcome of such decisions. The athlete relies upon the coach to have been there or been through this before so is confident in the decision they make. The coach is also seen to be able to project future and be future focused. These two components also have high trust and confidence ingrained from the athlete perspective to acknowledge the coach in this type of regard. High trust as a factor of this type of success in the fact that the team rallies behind the coach they can both trust and believe has the wisdom and understanding to know how to win and capitalize on opportunities. The coach is believed to have the knowledge base through multiple factors but also has the belief of the team on the ability to win because of the decisions they make. Future focus of understanding what is happening, what could happen, and what will happen dependent on changes the coach makes all indicate the wisdom the coach is believed to have.

Conclusion 3. High functioning teams strive for perfection across genders and various sports. Teams within collegiate athletics include some of the best individuals assembled by winning coaches. In Finding 5 (F5) it was shown that there was not a significant difference among the teams or across genders. Coaches who do not know how to assemble teams rarely make it to the collegiate levels and if they do, they do not last very long at that level because of poor performance. In order to prove and provide success recruiting individuals who have proven their success both on the field and in the classroom is critical to performing at elevated levels like that of collegiate athletics. Within this study the historical statistics show all teams to have a winning record as shown in Table 108. Not only do all teams in this study have a winning record but all but one, who's post-season appearance is based on votes and not records, were able to go to a post-season appearance or show evidence of prior seasons as it pertained to those sports which ended early. This is a significant indicator of putting the right coaches, with the right athletes, with trust and belief can significantly impact the overall outcome at the team and individual level. Coaches and athletes are always striving to become better and fix mistakes before actual game day performances. By understanding high levels of competition and the time needed in order to foster team and individual success there are multiple areas of focus which could cause improvement from the team and individual level. By the indicators and factors in this study many of those are not done on the actual field of play but more with the relationships and interactions of the coaches and players off the field.

Implications

Several implications are present with this study within the space of global leadership and change and within competitive sport. This study was focused on the impact of the coach as a leader as well as the relationships with the coach and individual members of the team. This focus

was then tied to several outcomes at the team and the individual levels. As a result of the study, not only is it increasing the scholarly work within the space of global leadership and change but it is also increasing the work within competitive athletics and the role of the coach as a leader. This work was also able to focus on the differences between competitive athletic groups and between individuals within the sub-groups of various teams.

Potential of the study on impacting how teams are formed and how coaches are seen within the athlete population is also present. By understanding the two instruments and the underlying narrative of the findings and conclusions while focusing on the relationships and the needs of the players, coaches can be more successful. The focus outside of the typical practice of a coach, outside of the general team meetings and practices, can contribute to new practices within competitive athletics and growing global teams. By understanding the person under the athlete and recognizing the role of mentoring, fostering growth, and relying upon intelligence the implications could be positive in the role of a coach and in the success of the team. This research could also help those who recruit coaches and become aware of how much the emotional intelligence of the individual is and how much they believe in life and interaction between the coach and the athlete outside of the typical competition, practice, and game centered routines.

Some policy changes and practices could come about because of this study and could be centered around the amount of interaction a coach and their players need to create value and trust. Trust is a mitigating factor when building winning competitive teams and is shown in the results of the study. One of the top underlying factors was to be able to go to a coach in trying times. In order to do so, trust is most times present within the space and several interactions are needed as to foster trust between the two, individual and coach. If trust is not present and if the

athlete and coach do not know one another on the level of friend or mentor, then this type of trust would not be present.

The study could also impact those within a global setting and create a greater focus on the emotional intelligence, trust, and team building aspects of teams and linked to be a positive indicator of success. For this study, each team was able to come together to have a winning season, where each individual contributed in some way to those wins. Policy and procedures linked to more mentoring aspects could also be suggested from the study. The mentoring aspect of coach to player across multiple areas could be put into place especially with the role of assistant coaches and administrators at the collegiate and professional levels of play. Possibilities could impact having a more secure network of individuals in an athletes' life who are part of the team, such as coaches and assistants. Funding opportunities for creating sustainable coaching staffs and securing key individuals for these types of relationships to be established from recruitment to graduation or year after year should be considered. Implications could impact the ability to have healthy relationship components as predictors of success on the field and off, both for the team and the individual.

Recommendations

Although there are many research topics which could come off of this study a few ideas for future research for other academics would be related to global leadership and change and the tie to competitive athletics. Some areas for further research could include the background of coaches as it pertains to how they lead. In this area there could also be further research regarding the impact related to when the coach came into the profession, training and education of the coach, the mentors or other coaches the coach learned from or tutored under, and their

background in athletics. Research related to the amount of years a coach brings or the reputation of the coach and the impact on the athlete or perceptions could also be interesting to study.

There is much work within the competitive athletic space that could also be linked to global leadership and change, management and teams, organizational behavior, and business strategy. Foci on the underlying business and arrangement of teams could have a crossover for management and recruitment as well as training and development. Within the competitive athletic space there are multiple areas which could be linked to corporate structures and global leadership practices and theory. The ability to also use years of historical statistics for research study is also an available option for researchers to use.

A new area of research amid crisis and pandemics may begin with the impact of COVID-19, cancelled seasons and games, and the effect on fan-bases, nationalism, and overall culture related to sport. There could be multiple crossovers around the globe because of world-wide pandemics and multiple topics which could stem from the culture and impact of athletics or in this case of not having athletics. With a world-wide impact and the similarities among fan base and impact on athletes, multiple research topics could be brought about and studied. This could further open up new areas in academic thought related to global leadership and change.

Evaluation

Evaluating the study and possible biases the researcher had while completing this research for this dissertation were limited by using an externally validated instrument and online platform. Although the methodology was intact some surprises were related to the methodology and distribution, such as self-reported data that are, or tend to be, based on perceptions rather than factual evidence. One of the underlying factors which the researcher had no control over was the impact of a world-wide pandemic and quarantine related to COVID-19. The survey was

scheduled to be distributed right as the pandemic was happening. This impacted not only the researcher but also the population. Since the pandemic initiated a nationwide quarantine, closing of schools, cancellation of sports seasons per the NCAA, and changes in teaching mode, the researcher had to be very aware of the timeline of distribution. Since the distribution happened after transitioning to an all online university format at the sample populations campus, sample size was impacted in gathering surveys. The distribution was also impacted in sending surveys as with an online framework there was limited access to computers and internet services for the population. Looking back the researcher believes distribution alongside a more ethnographic approach would work far better in gaining more understanding and clarifying confusion regarding the questionnaires. The ethnographic approach alongside a quantitative assessment would help in understanding differing dynamics among the population as well.

The research was very transformational in knowing differing methodologies may assist in getting to the dynamic of winning teams and performance. If there is high trust among researchers, coaches, and athletes more hands-on in vivo research could happen which could also impact the quality of research gathered. By recognizing multiple lenses and the significance of not only the athlete but also the entire coaching staff is critical to gain the entire picture of success at high levels of competitive athletics. In the future the researcher would like to take a more hands-on approach incorporating ethnographic inquiry, pre- and post- season survey techniques, alongside historical statistics, and specific to comparing similar populations of athletes and multiple levels of competition.

Chapter Summary

Chapter 5 discussed the impact of the research and statistics gathered for the study. The chapter also highlighted findings and conclusions linking them to the overall study and research

collected. The chapter finished with the researchers' thoughts on the implications from the study in policy and practice, recommendations for further research, and evaluation of the study. The entire study was focused on competitive athlete's perceptions related to several key associated factors focused on relationships and servant leadership linked to team and individual outcomes. *Competitive athletics not only teaches you to be empathetic to the game, but also to be empathetic to the individual and the team. Competitive athletes perform as good as the coach who believes in the team AND the individual. IF you win the favor of the individual you win the favor of the team and then WIN THE GAME.*

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APPENDIX A

CITI Training Certificate

Completion Date 07-Apr-2019
Expiration Date 05-Apr-2024
Record ID 28870702

This is to certify that:

Katherine Kamachi

Has completed the following CITI Program course:

GSEP Education Division (Curriculum Group)
GSEP Education Division - Social-Behavioral-Educational (SBE) (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

Pepperdine University

Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wa32ae107-eafc-4e0e-ba8b-947cd08a98ef-28870702

APPENDIX B

IRB Site Approval Letters

DSU DIXIE STATE UNIVERSITY
ST. GEORGE, UTAH

Tiffany Petersen, PhD, RN
Chair- Institutional Review Board
Dixie State University
[redacted]

January 28, 2020

Pepperdine University
Graduate and Professional Schools Institutional Review Board (GPS IRB)
6100 Center Drive- 5th Floor
Los Angeles, CA 90045

Dixie State University Institutional Review Board Official Letter

RE: Katherine D. Kamachi

To GPS IRB:

This letter is to convey that I have reviewed the proposed research study being conducted by Katherine D. Kamachi to research within the athletic department at Dixie State University and find it acceptable. Preliminary permission to conduct research at this site is being granted pending IRB approval from your university. After I have received a copy of IRB approval, I will forward an authorization agreement to Ms. Kamachi and grant final approval.

Please feel free to contact me if you have any questions.

Sincerely,

Tiffany L Petersen

Tiffany L Petersen, PhD
Chair- Institutional Review Board
Dixie State University
[redacted]

DSU DIXIE STATE UNIVERSITY
ST. GEORGE, UTAH

Dr. Jason Boothe
Director of Athletics
[redacted]

November 25, 2019

Pepperdine University
Graduate and Professional Schools Institutional Review Board (GPS IRB)
6100 Center Drive – 5th Floor
Los Angeles, CA 90045

RE: Katherine D. Kamachi

To GPS IRB:

This letter is to convey that I have reviewed the proposed research study being conducted by Katherine D. Kamachi to research within our athletic department at Dixie State University and find it acceptable. I give permission for the above investigators to conduct research at this site. If you have any questions regarding site permission, please contact: Song Gao, IRB Analyst or Tiffany Petersen, IRB Chairperson. If additional information is needed within athletics please contact a member of my staff or myself.

Sincerely,

Dr. Jason Boothe

Director of Athletics

APPENDIX C

Informed Consent Information Sheet

LEADING, COACHING, & MENTORING: A STUDY OF COACH-ATHLETE RELATIONSHIPS AS ASSOCIATED FACTORS IN PERFORMANCE

The following information is provided to help you decide whether you wish to participate in a research study. Please take your time to read the information below and feel free to ask any questions before signing this document.
My name is Katherine Kamachi, and I am a Doctoral student in the Ph.D. program of Global Leadership and Change at Pepperdine University. The professor supervising my work is Dr. Martine Jago. The title of my research study is ***LEADING, COACHING, & MENTORING: A STUDY OF COACH-ATHLETE RELATIONSHIPS AS ASSOCIATED FACTORS IN PERFORMANCE,*** and is being done as partial requirement for my Doctoral degree.

Purpose of Research Study: The purpose of this study is to analyze coach-student athlete relationships as associated factors in individual and team performance within team sports.

Procedures: If you volunteer to participate in this research study, you will be asked to take an adapted survey online.

- The questions will be related your perceptions of servant leadership and relationship with your head coach at your current institution.

Potential Risks: There are minimal risks participating in the study. The only result of participation may be an increased awareness of servant leadership and relationships.

Potential Benefit: The benefits are social in aspects related to a mutual and educational knowledge increase for the student athletes and the impact of servant leadership, team commitment, closeness, and complementarity, which are found within global leadership. There are also benefits of participation in knowledge and adding to the area of research related to competitive sport, outcome attainment, and the impact of global leadership research within a sport setting.

Voluntary/right to deny or withdraw from participation: Your participation in the research study is completely voluntary, and you have the right to deny, withdraw or refuse to participate at any time, with no negative consequences to you.

Confidentiality: Data obtained for this research study, including your responses to the survey will be kept confidential. The confidentiality of my records will be maintained in accordance with applicable state and federal laws. Under California law, there are exceptions to confidentiality, including suspicion that a child, elder, or dependent adult is being abused, or if an individual discloses an intent to harm him/herself or others. Any identifying information such as names or email addresses will be removed to secure the confidentiality of individual data in the event data is exposed. Safety of data and long-term storage will occur by having the data collected through Qualtrics, an online database survey system, and downloaded data stored on the researcher's password protected external hard drive housed in a locked safe within the researcher's home. The data will be saved for at least three years as stated with federal laws.
The results of this research study will be summarized as a whole, as so no persons will identify you.

Contact information for questions or concerns: If you have further questions regarding this research, you may contact me, the primary investigator, Katherine Kamachi at: [redacted] or my faculty supervisor, Dr. Martine Jago at [redacted]. If you have questions about your rights as a research participant, you may contact *Dr. Thema Bryant-Davis, Chairperson of the GPS IRB at Pepperdine University at* [redacted]

On-line consent: By clicking on the link to the survey, you agree to participation in this research study.
(If you would like documentation of your participation in this research, you may print a copy of this form.)

APPENDIX D

Sample Email Invitation

Date

Dear [Name],

My name is Katherine (Katie) Kamachi, and I am a doctoral student in the Ph.D. in Global Leadership & Change at Pepperdine University. I am conducting a research study examining competitive athlete outcome attainment, both at the team and individual level, as related to perception related to team commitment, closeness, & cooperation (3C) alongside the perceived servant leadership aspects found in coaches and are invited to participate in the study. If you agree, you are invited to participate in the study of *LEADING, COACHING, & MENTORING: A STUDY OF COACH-ATHLETE RELATIONSHIPS AS ASSOCIATED FACTORS IN PERFORMANCE*. The survey is anticipated to take no more than 15 minutes to complete.

Participation in this study is voluntary. Your identity as a participant will remain confidential during and after the study. No identifying information obtained in the study will be shared with coaches, peers, other athletic teams, or athletic administrators during or after the study. Any identifying information such as names or email addresses will be removed to secure the confidentiality of individual data in the event data is exposed, and pseudo names will be used during data collection, with only the researcher having access to identifying factors linking the names with individuals.

If you have questions or would like to participate, please contact me [redacted] or [redacted]

Thank you for your participation,

Katie Kamachi
Pepperdine University- GSEP Ph.D. Global Leadership & Change
Doctoral Student

APPENDIX E

Servant Leadership Questionnaire

This questionnaire aims to measure your perception of the servant leadership of your head coach. Please read carefully the statements below and pick the answer that indicates whether you agree or disagree. There are no right or wrong answers. Please respond to the statements as honest as possible and relevant to how you personally think as related to your coach.
This measure utilizes a 4-point scale: 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = strongly agree.

1.	This person puts my best interests ahead of his/her own	1	2	3	4
2.	This person does everything he/she can to serve me.	1	2	3	4
3.	This person is one I would turn to if I had a personal trauma.	1	2	3	4
4.	This person seems alert to what's happening.	1	2	3	4
5.	This person offers compelling reasons to get me to do things.	1	2	3	4
6.	This person encourages me to dream "big dreams" about the organization.	1	2	3	4
7.	This person is good at anticipating the consequences of decisions	1	2	3	4
8.	This person is good at helping me with my emotional issues.	1	2	3	4
9.	This person has great awareness of what is going on.	1	2	3	4
10.	This person is very persuasive	1	2	3	4
11.	This person believes that the organization needs to play a moral role in society.	1	2	3	4
12.	This person is talented at helping me to heal emotionally.	1	2	3	4
13.	This person seems in touch with what's happening.	1	2	3	4
14.	This person is good at convincing me to do things.	1	2	3	4
15.	This person believes that our organization needs to function as a community.	1	2	3	4
16.	This person sacrifices his/her own interests to meet my needs.	1	2	3	4
17.	This person is gifted when it comes to persuading me.	1	2	3	4
18.	This person sees the organization for its potential to contribute to society.	1	2	3	4
19.	This person encourages me to have a community spirit in the workplace.	1	2	3	4
20.	This person goes above and beyond the call of duty to meet my needs.	1	2	3	4
21.	This person seems to know what is going to happen.	1	2	3	4
22.	This person is preparing the organization to make a positive difference in the future.	1	2	3	4
23.	This person is one that could help me mend my hard feelings.	1	2	3	4

Variables	Items
Altruistic calling	1, 2, 16, 20
Emotional healing	3, 8, 12, 23
Wisdom	4, 7, 9, 13, 21
Persuasive mapping	5, 6, 10, 14, 17
Organizational stewardship	11, 15, 18, 19, 22

APPENDIX F

Coach–Athlete Relationship Questionnaire–Metaperspective Version

This questionnaire aims to measure the quality and content of the coach-athlete relationship. Please read carefully the statements below and pick the answer that indicates whether you agree or disagree. There are no right or wrong answers. Please respond to the statements as honest as possible and relevant to how you personally think your coach feels about you.

The measure utilizes a 7-point response scale ranging from 1 (strongly disagree) to 7 (strongly agree)

1. My coach likes me	1	2	3	4	5	6	7
2. My coach trusts me	1	2	3	4	5	6	7
3. My coach respects me	1	2	3	4	5	6	7
4. My coach appreciates the sacrifices I have experienced to improve performance	1	2	3	4	5	6	7
5. My coach is committed to me	1	2	3	4	5	6	7
6. My coach is close to me	1	2	3	4	5	6	7
7. My coach believes that his/her sport career is promising with me	1	2	3	4	5	6	7
8. My coach is at ease	1	2	3	4	5	6	7
9. My coach is responsive to my efforts	1	2	3	4	5	6	7
10. My coach is ready to do his/her best	1	2	3	4	5	6	7
11. My coach adopts a friendly stance	1	2	3	4	5	6	7

Variables	Items
Closeness	1, 2, 3, 4,
Commitment	5, 6, 7
Complimentary	8, 9, 10, 11

APPENDIX G

Permissions for Adaptations

PEPPERDINE

Katherine Kamachi [redacted]

Permission for Adaptation of Servant Leadership Questionnaire

Barbuto, Jay [redacted] Mon, Jan 27, 2020 at 5:21 PM
To: Katherine Kamachi [redacted]

Hi katherine,
It doesnt read as though you are altering the SLQ, so no problem.

Sent from my Sprint Samsung Galaxy S10+.

-------- Original message --------
From: Katherine Kamachi 'student [redacted]
Date: 1/27/20 3:52 PM (GMT-08:00)
To: "Barbuto, Jay" [redacted]
Subject: [External] Permission for Adaptation of Servant Leadership Questionnaire

Hello Dr. Barbuto,

I am emailing to obtain permission to adapt and use your Servant Leadership Questionnaire attached to this email for part of my dissertation study in Global Leadership & Change. The reason for the adaptation is the following:

- I will also be asking demographic and other questions to include participants' gender, country of origin, current year of collegiate participation (Freshman, Sophomore, Junior, Senior, including redshirt years), total years of participation in his or her collegiate sport, years of participation at the university within the sport, and years with the current coach and/or assistant coaches.
- I will be adding the Coach-Athlete Relationship Questionnaire by Sophia Jowett (2009) within this study as well, attached below. I am also contacting this author for permission.
- I will be using this adapted survey within the United States on a collegiate campus within the NCAA Divison II level of play.

Please let me know if there are additional items you would like or if there is another way to obtain permission to use the instrument. Thank you for your time and I look forward to your response.

kdk

Katie Kamachi, M.Ed.
Ph.D. in Global Leadership and Change I Student
[redacted]

PEPPERDINE

[redacted] 1/1

PEPPERDINE

Katherine Kamachi [redacted]

Approval for adaptation

Sophia Jowett [redacted] Wed, Jan 29, 2020 at 9:55 AM
To: Katherine Kamachi [redacted]

Thank you Katherine. I am happy to use CART-Q for non-commercial purposes and wish you all the very best for your research - please let me know what your results shown.

With best wishes,

Sophia

From: Katherine Kamachi [redacted]
Sent: 27 January 2020 23:44
To: Sophia Jowett [redacted]
Subject: Approval for adaptation

Hello Dr. Jowett,

I am emailing to obtain permission to adapt and use your Coach-Athlete Relationship Questionnaire-Metapersepctive Version attached to this email for part of my dissertation study in Global Leadership & Change. The reason for the adaptation is the following:

- I will also be asking demographic and other questions to include participants' gender, country of origin, current year of collegiate participation (Freshman, Sophomore, Junior, Senior, including redshirt years), total years of participation in his or her collegiate sport, years of participation at the university within the sport, and years with the current coach and/or assistant coaches.
- I will be adding the Servant Leadership Questionnaire within this study as well, attached below. I am also contacting these authors for permission.
- I will be using this adapted survey within the United States on a collegiate campus within the NCAA Divison II level of play.

Please let me know if there are additional items you would like or if there is another way to obtain permission to use the instrument. Thank you for your time and I hope you had a wonderful experience with your University Fellowship. I look forward to your response.

kdk

Katie Kamachi, M.Ed.

Ph.D. in Global Leadership and Change | Student

[redacted]

[redacted]

APPENDIX H

APA Approval for Adaptation of CART-Q

AMERICAN PSYCHOLOGICAL ASSOCIATION ORDER DETAILS

Jan 27, 2020

Order Number	501542562
Order date	Jan 27, 2020
Licensed Content Publisher	American Psychological Association
Licensed Content Publication	Group Dynamics: Theory, Research, and Practice
Licensed Content Title	Factor structure and criterion-related validity of the metaperspective version of the Coach–Athlete Relationship Questionnaire (CART-Q).
Licensed copyright line	Copyright © 2009, American Psychological Association
Licensed Content Author	Jowett, Sophia
Licensed Content Date	Sep 1, 2009
Licensed Content Volume	13
Licensed Content Issue	3
Type of Use	Thesis/Dissertation

APPENDIX I

Demographic Questions

These questions will be asked at the beginning of the survey to use them for the correlational predictive study:

- What is your Country of origin and/or citizenship?
    a. Fill in the Blank
- What do you identify as below? Click all that apply:
    a. American Indian or Alaska Native
    b. Asian
    c. Black or African American
    d. Native Hawaiian or Other Pacific Islander
    e. White or Caucasian
    f. Hispanic or Latino
    g. Mixed (chose more than one above)
- What is your year of collegiate participation?
    a. Freshman
    b. Sophomore
    c. Junior
    d. Senior
    e. Other (Redshirt or Graduate)
- What sport are you participating in on campus? Did you participate/play this season? If not, why? Did you participate on another campus? Which Campus?
- What are your total years of participation your collegiate sport?
- What are your total years of participation at the university within the sport?
- How many years have you been with your current head coach?

APPENDIX J

SPSS Data Fields for Variables

CART-Q Data Fields for Variables in SPSS

Altruistic_Interests	This person puts my best interests ahead of his/her own
Altruistic_Serve	This person does everything he/she can to serve me.
Emotional_Trauma	This person is one I would turn to if I had a personal trauma.
Wisdom_Alert	This person seems alert to what's happening.
Persuasive_Reasons	This person offers compelling reasons to get me to do things.
Persuasive_Dreams	This person encourages me to dream "big dreams" about the organization.
Wisdom_Consequences	This person is good at anticipating the consequences of decisions
Emotional_EmotionIssue	This person is good at helping me with my emotional issues.
Wisdom_Awareness	This person has great awareness of what is going on.
Persuasive_Overall	This person is very persuasive
OrgSteward_Moral	This person believes that the organization needs to play a moral role in society.
Emotional_Heal	This person is talented at helping me to heal emotionally.
Wisdom_Happening	This person seems in touch with what's happening.
Persuasive_Convince	This person is good at convincing me to do things.
OrgSteward_BuildCommunity	This person believes that our organization needs to function as a community.
Altruistic_Sacrifice	This person sacrifices his/her own interests to meet my needs.
Persuasive_Gifted	This person is gifted when it comes to persuading me.
OrgSteward_Society	This person sees the organization for its potential to contribute to society.

OrgSteward_Campus	This person encourages me to have a community spirit in the workplace.
Altruistic_Abeyond	This person goes above and beyond the call of duty to meet my needs.
Wisdom_Future	This person seems to know what is going to happen.
OrgSteward_Future	This person is preparing the organization to make a positive difference in the future.
Emotional_Mending	This person is one that could help me mend my hard feelings.

SLQ Data Fields for Variables in SPSS

Closeness_Like	My coach likes me
Closeness_Trust	My coach trusts me
Closeness_Respect	My coach respects me
Closeness_Appreciate	My coach appreciates the sacrifices I have experienced to improve performance
Commitment_Commit	My coach is committed to me
Commitment_Close	My coach is close to me
Commitment_Career	My coach believes that his/her sport career is promising with me
Comp_Ease	My coach is at ease
Comp_Effort	My coach is responsive to my efforts
Comp_Cbest	My coach is ready to do his/her best
Comp_Cfriendly	My coach adopts a friendly stance

APPENDIX K

IRB Notification

Pepperdine University
24255 Pacific Coast Highway
Malibu, CA 90263
[redacted]

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: March 23, 2020

Protocol Investigator Name: Katherine Kamachi

Protocol #: 20-02-1283

Project Title: LEADING, COACHING, & MENTORING: A STUDY OF COACH-ATHLETE RELATIONSHIPS AS ASSOCIATED FACTORS IN PERFORMANCE

School: Graduate School of Education and Psychology

Dear Katherine Kamachi:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

Version Date: 03/31/2011

Sample text for an Institution with a Federalwide Assurance (FWA) to rely on the IRB/IEC of another institution (institutions may use this sample as a guide to develop their own agreement).

Institutional Review Board (IRB) Authorization Agreement

Name of Institution or Organization Providing IRB Review (Institution/Organization A):
Pepperdine University

IRB Registration #: _____ Federalwide Assurance (FWA) #, if any: 00006872

Name of Institution Relying on the Designated IRB (Institution B):
Dixie State University

FWA #: 00023200

The Officials signing below agree that Dixie State University may rely on the designated IRB for review and continuing oversight of its human subjects research described below: (*check one*)

(___) This agreement applies to all human subjects research covered by Institution B's FWA.

(X) This agreement is limited to the following specific protocol(s):

Name of Research Project: Leading Coaching & Mentoring: A Study of Coach-Athlete Relationships
Name of Principal Investigator: Katherine Kamachi
Sponsor or Funding Agency: _____ Award Number, if any: _____

(___) Other (*describe*): _____

The review performed by the designated IRB will meet the human subject protection requirements of Institution B's OHRP-approved FWA. The IRB at Institution/Organization A will follow written procedures for reporting its findings and actions to appropriate officials at Institution B. Relevant minutes of IRB meetings will be made available to Institution B upon request. Institution B remains responsible for ensuring compliance with the IRB's determinations and with the Terms of its OHRP-approved FWA. This document must be kept on file by both parties and provided to OHRP upon request.

Signature of Signatory Official (Institution/Organization A):
Katy S Carr Digitally signed by Katy S Carr Date: 2020.03.23 20:39:47 -07'00' Date: 03/23/2020

Print Full Name: Katy S. Carr Institutional Title: Assistant Provost for Resea

NOTE: The IRB of Institution A may need to be designated on the OHRP-approved FWA for Institution B.

Signature of Signatory Official (Institution B):
Tiffany L Petersen, PhD, RN Digitally signed by Tiffany L Petersen, PhD, RN Date: 2020.03.23 15:16:06 -06'00' Date: 3/23/2020

Print Full Name: Tiffany L Petersen, PhD, RN Institutional Title: IRB Chair