INVESTIGATING THE PREDICTIVE RELATIONSHIP BETWEEN SPORTSMANSHIP AND CLASS, AGE, TYPE OF SPORT, AND GENDER AT THE UNITED STATES MILITARY ACADEMY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree Doctor of Education

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ABSTRACT

Traditionally, military leaders accentuate military skill development over developing the moral character of soldiers. However, researchers have made recommendations to investigate components of sportsmanship with the intent to align better with the goals of other development programs that seek to promote character. The purpose of this quantitative, correlational design study was to use a multiple linear regression on an archival data set of Character in Sport Index scores to determine if the linear combination of the variables class, age, type of sport, and gender have predictive significance for Character in Sport Index scores. Subjects included 8,701 cadets between the ages of 17 and 27 years old attending the United States Military Academy (USMA) during the 2017-2018 and 2018-2019 academic years. The findings found that the variables class, age, gender, and type of sport play a statistically significant predictive role in terms of Character in Sport Index scores. Therefore, future discussion may be justified as to investigating other avenues involved in sports education to accomplish assessing traditional institutional methods of character development to identify stronger predictive variables.

Keywords: character, gamesmanship, sportsmanship, sport education, fair play, ethics
Dedication

Pop, this work is dedicated to you and all the lessons you continue to teach me. Your words and ways have reached past your four children and have permeated their way down to your thirteen grandchildren. It will be the purpose of my heart to honor your legacy by demonstrating that same grace, strength, and inspiration to my children, to my grandchildren, and to my students – The United States Corps of Cadets at the United States Military Academy. Thank you, Pop, my sky is green, and the grass is blue every day. Your Pal
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Mom, although you and Pop may be proud of me for this achievement, I am a thousand times prouder of the Mom and Dad that raised me to do it. Thank you.

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To my Father God. Thank You that I am blessed and highly favored. Thank You that You have a plan and purpose for me. To give me hope and a future.
Table of Contents

ABSTRACT .................................................................................................................................... 3
Dedication ....................................................................................................................................... 4
Acknowledgements ......................................................................................................................... 5
List of Tables .................................................................................................................................. 9
List of Figures ............................................................................................................................... 10
List of Abbreviations .................................................................................................................... 11
CHAPTER ONE: INTRODUCTION ........................................................................................... 12
  Overview ....................................................................................................................................... 12
  Background .................................................................................................................................... 12
  Problem Statement .................................................................................................................... 20
  Purpose Statement .................................................................................................................... 21
  Significance of the Study .......................................................................................................... 22
  Research Question .................................................................................................................... 22
  Definitions .................................................................................................................................... 23
CHAPTER TWO: LITERATURE REVIEW ............................................................................... 25
  Overview ....................................................................................................................................... 25
  Theoretical Framework .......................................................................................................... 26
    Structural Development Theory .......................................................................................... 26
    Social Learning Theory ......................................................................................................... 27
  The United States Military Academy Competitive Sports Program .................................... 28
  Military Profession .................................................................................................................... 34
  Character and Sportsmanship ................................................................................................. 40
List of Tables

Table 1. Mean Character in Sport Index Scores by Class 2017-2018 .......................................... 72
Table 2. Mean Character in Sport Index Scores by Class 2018-2019 .......................................... 72
Table 3. Mean Character in Sport Index Scores by Age 2017-2018 ............................................ 73
Table 4. Mean Character in Sport Index Scores by Age 2018-2019 ............................................ 73
Table 5. Mean Character in Sport Scores by Sport 2017-2018 .................................................... 74
Table 6. Mean Character in Sport Scores by Sport 2018-2019 .................................................... 74
Table 7. Mean Character in Sport Index Scores by Gender 2017-2018 ....................................... 75
Table 8. Mean Character in Sport Index Scores by Gender 2018-2019 ....................................... 75
Table 9. Collinearity Statistics 2017-2018.................................................................................... 76
Table 10. Collinearity Statistics 2018-2019.................................................................................. 77
Table 11. Regression Model Results 2017-2018 .......................................................................... 78
Table 12. Model Effect Size 2017-2018 ....................................................................................... 79
Table 13. Coefficients 2017-2018 ................................................................................................. 79
Table 14. Regression Model Results 2018-2019 .......................................................................... 80
Table 15. Model Effect Size 2018-2019 ....................................................................................... 80
Table 16. Coefficients 2018-2019................................................................................................ 81
List of Figures

Figure 1. Scatter Plots for 2017-2018 .......................................................... 70

Figure 2. Scatter Plots for 2018-2019 .......................................................... 71
List of Abbreviations

Cadet in Charge (CI)
Cadet Observation Report (COR)
Character in Sport Index (CSI)
Department of Physical Education (DPE)
Grade Point Average (GPA)
Institutional Review Board (IRB)
National Basketball Association (NBA)
National Collegiate Athletic Association (NCAA)
Professional Development Review (PDR)
Statistical Package for the Social Sciences (SPSS)
United States Military Academy (USMA)
Variance Inflation Factor (VIF)
CHAPTER ONE: INTRODUCTION

Overview

The mission of the United States Military Academy (USMA) is to prepare graduates to be commissioned leaders of character, equipped for professional excellence, serving the United States as officers in the U.S. Army. The following chapter presents a summary of the Character in Sport program at the USMA. The history and description of an assessment instrument used to evaluate sportsmanship at a military institution for higher learning is included. This chapter will address the background problem statement along with the purpose and relevance of the research, which was to identify the predictive relationship between the Character in Sport Index and class, age, type of sport, and gender at the United States Military Academy.

Background

The USMA is the Army’s institution of higher learning whose mission is to prepare graduates to be commissioned leaders of character who have internalized living honorably in all situations and environments (Goldbook, USMA, 2015). Because “decisions and resulting actions, done many times a day by each Army professional are highly moral in character in that they directly influence the well-being of other persons” (Snider, 2015, p. 48), character is a vital necessity to the Army’s continued effectiveness as a profession. Army leaders are continually challenged by new initiatives conducted by those that threaten the United States or our allies. Still, the responsibility to remain moral in the landscape of what they are permitted to do, demands that military leaders possess sound moral character and ethics. In the Army, character is defined as an individual’s moral and ethical nature that motivates them to determine what is right and acting on that decision appropriately regardless of the circumstances or consequences (United States Department of the Army, 2015). In literature, it has also been defined as “a basic
personality that consists of moral integrity, toughness, and unique potentials shaped by habits and culture where it originates from” (Djiwandono, 2016, p. 154). The USMA fosters a culture where character can be shaped.

At the USMA, few classrooms can provide a specific environment that affords constantly changing unknowable conditions that would require individuals to keep to an ethical standard by purposefully acting from good moral choices. Sports, specifically competition, require participants to compete by a previously agreed upon set of rules. As action takes place, participants are presented constantly with opportunities to choose to adhere to the rules or not in their pursuit to compete. In response to this, the Department of Physical Education (DPE) at USMA plays an integral role in character development of cadets through its curriculum, particularly via sports.

How cadets trust and view each other (peer assessment) in a stressful environment, such as sports, can be tied to character and professional development in the Army profession. Research has shown that displays of positive moral behavior decrease as competitive levels of sports increase (Schaefer et al., 2018). Literature has also determined that a lower level of moral or ethical reasoning has been displayed by athletes as compared to non-athletes. The arena of sport provides a competitive and everchanging kinetic environment that under more serious and violent conditions, are closest to the unknowable and constantly varying environments combat offers. In combat, leaders of soldiers cannot rely on a win at all cost philosophy often portrayed in sports or ignore rules of engagement out of frustration or lack of discipline.

Researchers determined that intellectual training must be consistent with “skills of practice” tied to ethical standards establishing a foundation of trust, concluding that trust is the basis necessary for group performance (Murray et al., 2021, p. 208). This important construct
makes it possible to relate the training to the metagame and the issue of social character. The
importance now comes from connecting the metagame perspective and moral/social character
with the Just War paradigm.

The concept of the metagame is the consideration given to games and socialization as
discussed by Middlemen (1970). Games are activities that “possess roles, rules, goals, rituals,
special language, values, specified durations” (p. 47). Middleman (1970) discussed Piaget’s
observation that by a child’s “knowing the rules and then abiding by them was the route through
which the growing individual evolved a sense of morality and achieved a personal code of
conduct” (p. 49). Middleman (1970) then introduced Szasz’s concept of game-playing and its
relationship to socialization giving the example that “the ugly winner could win the game but
lose the metagame” (Szasz, 1967 as cited in Middleman, 1970, p. 50). Does the player know the
rules and play by them, or are they using their own set of rules? Szasz’s concept of succeeding in
the metagame would be related to a player having their own set of rules and knowing the overall
rules, then determining where compromise can be found.

Changes in the approach of modern conflict and warfare have become increasingly
complex. The arena of the modern battlefield is often undefined and unknowable. It is an
everchanging environment where enemies intentionally blend with the aggregate population,
making it hard to determine between hostile or friendly. Because of this, the moral expectations
set by the American citizens regarding civilian casualties cannot always be achieved. Regardless,
a professional responsibility must still exist (United States Department of the Army, 2015).

To support in this developmental process, the DPE at USMA employs the use of sport
competitions for displaying, assessing, and developing character. Other institutions of higher
learning have also begun to incorporate character education into the instructional curriculum.
These other higher education institutions provide their students with out-of-classroom practices that contribute to their character development (Djiwandono, 2016). When inculcating character development, the USMA’s DPE serves to complement formal classroom learning objectives by devoting a directed time and program involving sport for an out-of-classroom practice to incorporate character education via their Company Athletics program. The outcome goal of the program is for the “physical, psychological, and emotional growth” (Banwell & Kerr, 2016, p. 2) of cadets.

Cadets at USMA not engaged in National Collegiate Athletic Association (NCAA) level sport, competitive club sport, or another authorized activity must participate in an intramural-like sport program with their company called Company Athletics. At USMA, the Corps of Cadets is made up of one brigade that is divided into four regiments where each regiment consists of nine companies. First and second regiments field teams in each of the six sports offered that compete on one day. Third and fourth regiment teams compete on another day. In addition to classroom instruction, competition is held Monday through Thursday between 4:15 pm and 6:30 pm. Teams play for a chance to compete in the Brigade Championships. Company Athletics provides cadets “with personal and social challenges, encourages them to develop more complex views on personal, academic, and cultural matters and provides them with opportunities for synthesizing and integrating materials presented in the formal academic program” (Banwell & Kerr, 2016, p. 2). Cadets receive their evaluations from other cadets which enhances their abilities to communicate, correct, and counsel. Sports provide continuous opportunities for repetitions of displaying one’s character or values. Participation in sports brings with it an individual’s proclivities to exhibit “attitudes of violence, pride, selfishness…fair play, spirit of unity, teamwork, etc.” (Sciarabba, 2012, p. 1).
Cadets are not graded primarily on their sport-specific or athletic performance. Instead, grading is based on a rating of their level of components linked to sportsmanship and fair play. The Character in Sport Index (CSI) assesses 12 items related to sportsmanship defined as fair play and observed behaviors such as respecting one’s opponent, playing by the rules, adhering to the officials, playing with a commitment to win, and avoiding any negative behaviors toward the game, one’s opponent, or the officials as described by Schaefer et al. (2018).

The Army Ethic is the foundation of the Army Profession (United States Department of the Army, 2015). It defines the principles that are non-negotiable when establishing an unmistakable identity defining soldiers and Army civilians. The Army Ethic holds the community of the Army to character, trust, and military expertise. Central to this is the necessity for members of the profession to possess the ability to maintain accountability by holding peers, subordinates, and those higher in authority responsible, requiring demonstration of moral courage over personal loyalties.

As part of their responsibility to graduate, this type of commissioned leaders of character committed also to the values of Duty, Honor, Country, USMA’s mission is to ensure that those graduates have internalized living honorably in all situations and environments. Schaefer et al. (2018) investigated assessing character attributes specifically requisite for succeeding at USMA, as well as in the U.S. Army overall. They looked to see if character attributes could be organized for continued analysis. This study surveyed 15 character attributes: Bravery, Empathy, Gratitude, Grit, Hardiness, Honesty, Integrity, Intellectual Humility, Intentional Self-Regulation, Leadership, Optimism, Purpose, Relational Humility, Social Intelligence, and Teamwork. Their findings concluded with four factor groups: Relational, Commitment, Honor, and Machiavellian. These four factors map to the foundational U.S. Army/USMA attributes of Trust, Honorable
Service, Military Expertise, Stewardship of the Profession, and Esprit de Corps. Schaefer et al. (2018) concluded that individuals who achieve high scores on traits of Relational, Commitment, and Honor would be recognized by their peers, instructors, staff, and faculty as having internalized Army values.

The USMA further accomplishes its mission by developing cadets militarily, intellectually, physically, and ethically. The DPE plays an integral role in character development of cadets throughout its curriculum and specifically through competitive sports. Character education is dissimilar to academic concepts and course offerings normally provided via classroom instruction and lectures. The DPE’s intramural-like program, called Company Athletics, provides a learning laboratory environment for cadets to experience character developing skills, learning the values of ethical conduct in a highly competitive, constantly changing setting. Askoy and Gursel (2018) contributed an important study of a ninth-grade physical education class. The resulting research verified that fair play descriptions of students and attitudes are at the pre-conventional (more self-focused) level while descriptions and attitudes after sport education are largely at the conventional (socially accepted ethical standards) or post-conventional level (one’s ethical principles and perspectives). Students demonstrated that they may internalize fair play by displaying the ability to make decisions according to their moral judgments (post-conventional).

The model of DPE’s Company Athletics program is based on “teaching good values and then inculcating those values through repeated actions that in time will become good habits…eventually culminates in the internalization of the good values” (Djiwandono, 2016, p. 159). Building upon this premise, the psychological and ethical makeup of accomplishment in athletics “holds worth by virtue of its expressing multiple human virtues as well as the basic
structure of human achieving” (Dobel, 2015, p. 329). The peer-assessment component of the CSI used to grade cadets participating in Company Athletics relies on honesty and objectivity where cadets score their classmates’ displays of virtue “without being influenced by personal feelings toward them” (Djiwandono, 2016, p. 162).

The ideas of fair play and the metagame paradigm hold significant implications for society, specifically as they relate to cadets attending USMA. “Aristotle made clear that virtuous activity was inherently social in how it is acquired through and with others, and how it is exercised with others and recognized by others” (Dobel, 2015, p. 326). One who plays the game well, and helps others play well, also enables everyone to enjoy the game and want to play more. It is by this approach that fair play reflects trust, respect, and leadership and how these components and Army values can be compared. It is with that idea in mind that USMA employs Company Athletics for the specific use of developing future leaders of character in terms of the moral judgments of military conflict.

Strand et al. (2018) looked at gamesmanship choices of athletes taking part in competitive college athletics. Researchers cited that there were significant differences by gender, determining that female athletes were more likely to identify an action as unacceptable than male athletes would report. Strand et al.’s (2018) study identified the components of gamesmanship, frequently evidenced by manipulating stated rules to gain an advantage, as well as a “win at all cost” mentality that blatantly or not, ignores those rules, both of which are areas for focused improvement in terms of character development. The results highlighted the importance of developing athletes by improving the mindful awareness of ethical choices. This was determined to be accomplished through discussion of alternative options, as well as modeling positive actions to reinforce developing character and adding to the benefits of sports.
Callina et al.’s (2017) research discussed character development goals at USMA along with challenges of developing character. Cadets were found to hold a more positive stance on the military’s role in war and peacekeeping than students at other colleges or universities. Callina et al. (2017) agreed that USMA promotes a specific area in terms of professional training which is educating, training, and inspiring future Army officers of character holding to professional Army Values. Also, it was concluded that intellectual training must align the “skills of practice” with ethical standards. Callina et al. (2017) pointed out that trust is the foundation necessary for group performance, making it possible to relate the training to the metagame and social character aspects.

The importance now comes from assessing observable trends concerning character development relating to the metagame perspective regarding moral/social character that can be linked with the Just War paradigm and military professionalism. The Just War traditions are the commonly held traditions as to what are and are not acceptable in times of war. That is, when the use of force can be considered, if it is warranted—how much force can then be exhibited, and who that force can be directed against (Whetham, 2016). The mission of the Army is to fight and win the Nation’s wars leaving it up to officers and soldiers to ultimately decide when it is morally and legally justified to engage, and possibly kill, the enemy (United States Department of the Army, 2015).

With the arena of sports in mind, Schaefer et al. (2018) studied relationships among 12 items describing positive behaviors such as humility, academic and military achievement, and physical performance, as well as negative behaviors such as one’s proclivity toward arguments and the number of disciplinary reports a cadet received. This study validated the CSI, which is the instrument used for the assessment of sportsmanship and fair play in the intramural-like
sports program at USMA called Company Athletics. Schaefer et al. (2018) found the CSI more identified those struggling in the listed items of sportsmanship and fair play than those excelling in positive displays of sportsmanship. It was concluded that scores on the CSI could be associated with other means of assessment of character or behavior problems. The CSI subfactor scores did show a relationship to academic grade point average (GPA); however, they were more strongly connected with a cadet’s military GPA. The total CSI score correlated to negative Cadet Observation Reports and peer-assessed Professional Development Reviews (PDRs). According to Schaefer et al.’s (2018) findings, the predominance of a male population at USMA, as well as sports being mandatory, could also somehow affect the way sportsmanship is demonstrated. The research was able to show that displays of positive moral behavior decrease as the competitive level of sport increases. They also determined that a lower level of moral or ethical reasoning has been found in athletes as compared to non-athletes. With this understanding, sport provides a competitive and everchanging, kinetic environment, that under more serious and violent conditions, are closest to similar everchanging, kinetic environments like combat where leaders of soldiers cannot rely on a win at all cost philosophy.

**Problem Statement**

Educational programs at USMA employ validated research instruments to assess the positive and negative observational traits associated with character development in a setting that closely mirrors the culture and conditions of the military profession. Prior research has adequately addressed methods of a peer-rated grading instrument for assessing sportsmanship. When validating the CSI, Schaefer et al. (2018) determined through using generalized linear measurements that positive CSI subscales linked to peer-rated PDRs of cadets and that the negative subscale used was not associated with PDR ratings. Schaefer et al. (2018) determined
negative assessment items on the CSI were not associated with military or academic GPAs while validating the CSI as an assessment of character and sportsmanship. There was also a significant effect of sport on overall military GPA scores when looked at via least significant difference (LSD)-adjusted analysis post-hoc.

Though prior research has discussed that military leaders emphasize military skill development over developing the moral character of soldiers (Strand et al., 2018), Schaefer et al. (2018) determined that negative assessment items on the CSI were not linked with military or academic GPAs. Literature also revealed that there are significant differences by gender when determining fair play (Schaefer et al., 2018). The premise of this research asserts that USMA’s Character in Sport character development program can provide opportunities for improved ethical choices and decisions by cadets and that the assessment of moral, social, and professional evaluation scores can be useful in appraising its effectiveness to predict cadet development.

Schaefer et al. (2018) recommended that further research be conducted to investigate how to measure components of sportsmanship to align better with the goals of other development programs that seek to promote character development through sport. With continued investigation, the CSI may be related across a variety of class, age, type of sport, and gender. Aspects unique to USMA, such as the ratio of the population by gender and participation in intramurals being mandatory, may also impact how sportsmanship behaviors are displayed and observed. The CSI was designed to highlight values that describe a player who strives for excellence while maintaining self-control, respect for rules, authority figures, and fellow competitors. The problem addressed in this research investigated the predictive relationship between the CSI and class, age, type of sport, and gender at USMA.

**Purpose Statement**
The purpose of this quantitative study was to determine if the variables class, age, type of sport, and gender held predictive significance for the assessment scores of the CSI pertaining to sportsmanship/fair play, perseverance, teamwork/unselfishness, attitude/coachability, and playing ability, of cadets who attended a military institution of higher learning. The research question for this study used a multiple linear regression to investigate the relationship between CSI scores and class, age, type of sport, and gender at USMA located in the northeastern United States.

The criterion variable for this study was the CSI scores. Predictor variables that were investigated are class, age, type of sport, and gender. The data set contained scores on cadets that participated in the intramural-style character in sport program. The participants of this study were cadets between the ages of 17 and 27 attending the United States Military Academy (USMA) during the 2017-2018 and 2018-2019 academic years.

**Significance of the Study**

The significance of this study was found within the concept that CSI scores and potential predictive variables class, age, gender, and type of sport, play a statistically significant role in cadet development both ethically and militarily. Therefore, a future discussion will be warranted on what effects this may have on best practices by way of the traditional institutional approach.

Since Strand et al. (2018) found there to be significant gender differences when determining fair play, this study investigated if this was true amongst cadets who participated in this mandatory Character in Sport program at USMA. By investigating the class and age data, this study was able to support the developmental process that takes place during a cadet’s 47-month experience at USMA.

**Research Question**
The following question guided this research study:

RQ: Can sportsmanship be predicted by the Character in Sport Index using the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports?

Definitions

1. Army Ethic – Values and beliefs established within the Army culture that provides direction regarding the conduct of Army professionals (soldiers and civilians) for a shared moral purpose (United States Department of the Army, 2015).

2. Attributes - Outcomes dependent on the continued relationship between an individual and the specific culture, society, and institutions where they are (Callina et al., 2018).

3. Character - Psychological characteristics that drive someone to act as a moral person while also being an effective member of society (Callina et al., 2018).

4. Ethical Leadership – Demonstrating appropriate conduct through actions, relationships, communications, support, and decision making (Sosik et al., 2017).

5. Gamesmanship – When a participant looks to gain an unfair victory by using tactics that threaten or violate the spirit of the game (Stewart, 2014).

6. Moral Courage – The attribute that empowers individuals to confront moral issues, consider other value systems, tolerate threats to achieve moral goals (Sosik et al., 2018).

7. Moral Character – Values that are critical to relationships as well as the keeping of a sense of morals that when violated may cause feelings of guilt and concern (Rudd, 2005).

8. Social Character – Values that have been deemed by a specific society or culture as being vital in achieving a desired outcome (Rudd, 2005).
9. *Sportsmanship* – The opportunity to display the relationship of social skill, self-control, and moral character development as it relates to the rules or standards of a specific group or culture. (Schaefer et al., 2018).
CHAPTER TWO: LITERATURE REVIEW

Overview

This research intended to determine whether there was a predictive relationship between the criterion variable Character in Sport Index (CSI) scores and predictor variables class, age, type of sport, and gender. The following section explains the history, context, and statistics of sport education in higher education, and then highlights the ideas and theories behind moral and social character development and how this would relate to the professional and military ethic in Army officers. This review of literature will also identify examples of efforts in research to analyze cadet performance within physical education, for the United States Military Academy (USMA) to graduate commissioned leaders of character prepared for a career of service to the Nation as an officer in the United States Army.

This literature review provides a theoretical understanding of how a character-based sports program, based on the implementation of sport education, is used to help in the development of character at a military institution of higher education, as well as related literature on the significance of ethical leadership in terms of the Army profession. This body of knowledge, while helpful to researchers studying character and sport education, highlights the literature gap that exists concerning how sport education correlates to graduating military leaders of character and military professionalism. Callina et al.’s (2017) analysis regarding developing leaders of character at USMA concluded that the combined developmental programs within higher education institutions might be “leveraged to the positive character development goals of the United States Military Academy (USMA)” (p. 9). This review of the literature demonstrates how sportsmanship relates to character which then relates to ethical military leadership and success.
Theoretical Framework

The purpose of this study was to use both structural development theory and social learning theory as frameworks for investigating the predictive relationship between sportsmanship and class, age, type of sport, and gender. Both theories of development were chosen since they met the criteria of predicting the relationship in this study.

Structural Development Theory

Structural development theory argues that to develop morally, individuals must first develop cognitively (Schwamberger & Curtner-Smith, 2018). That is, a person must form core values and beliefs by which new social values and situations are evaluated. Moreover, these core values and beliefs are adjusted, shaped, and developed when a person starts to consider values and beliefs that are different from their own while also constantly evaluating one’s current beliefs. Piaget (1965) labelled this process equilibration, describing when an individual fits and adapts new information into one’s existing way of thinking.

Kohlberg (1976) proposed that, as one develops their core values, one goes through three levels of moral development: pre-conventional, conventional, and post-conventional (as cited in Schwamberger et al., 2018). Shields and Bredemier (as cited in Schwamberger et al., 2018) explained those three levels of moral development in the context of sport. At the pre-conventional level, an individual does not effectively understand moral and ethical norms. Instead, they adopt “societal or group rules through fear of punishment” (Schwamberger et al., 2018, p. 549). An example of pre-conventional behavior in this investigation’s focus of sport education and sportsmanship would be a player who decides not to foul an opponent who is about to score in a game of basketball, being afraid they would be called for a foul.
Following the pre-conventional level is the conventional level of moral development. Here, an individual understands social values and beliefs and behaves according to them (Schwamberger et al., 2018). However, they cannot question the morality of these values. Continuing in the example above, at this level of development would be a player that argues with an official attempting to manipulate, possibly even intimidate, them because this is an observed behavior demonstrated by their teammates.

The final stage, the post-conventional level of moral development as displayed by sportsmanship, is a player that has internalized what they consider to be morally good and bad actions or values which they use to analyze the social values they are confronted with, where they now determine whether they should or should not acquiesce to socially acceptable behaviors or beliefs if they have come to believe them to be immoral (Schwamberger et al., 2018). An example of the post-conventional level of development, as it relates to sportsmanship, would be if the official made an out of bounds call on the opponent but the player knows for certain that they were the last one to touch the ball and relays that information to the official to decide to either correct the call or let it stand.

Social Learning Theory

Social learning theory is useful when examining how students learn through observation and modeling (Horsburgh & Ippolito, 2018). This construct was developed by Bandura (1977) who determined that, while learning can take place in social settings through observation, it must include reasoning practices (Horsburgh & Ippolito, 2018) in order to influence similar behavior in the future (Eby et al., 2015). Similarly, Piaget expressed that “imitation is an essential factor in the “constitution of representative activity” (Sutton-Smith, 1966, p. 106). Bandura (1977) proposed that this type of learning involved four stages. First, one observes the behavior that
they want to imitate or that others want them to imitate. Second, one retains those observed behaviors. Third, one reproduces those behaviors, and finally, one is motivated to display those behaviors themselves (Horsburgh & Ippolito, 2018).

The model of social learning theory proposes that “significant persons and institutions within an individual's culture and environment have a considerable effect on their values, beliefs, and consequent behavior” (Schwamberger et al., 2018, p. 550). Hassandra et al. (2007) and Rest et al. (1999) found that by promoting and modeling specific values, individuals, as well as organizations, shape one’s views as to what is morally right or wrong. An example of this can be seen in the Army Ethic which

establishes the standard and expectation for all to serve as stewards of the Army Profession. It is expressed in our moral principles, Army Values, oaths and creeds, laws and regulations, and customs, courtesies, and traditions—all embedded within the Army culture. (United States Department of the Army, 2015, p. 2-1)

Using both structural development theory and social learning theory as the theoretical groundwork for this investigation, this research can be useful in acquiring evidence-based understanding.

The United States Military Academy Competitive Sports Program

Callina et al. (2017) concluded that developmental programs within higher education institutions might be “leveraged to the positive character development goals of the United States Military Academy (USMA)” (p. 9). The mission of USMA is to

Educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of Duty, Honor, Country and prepared for a
career of professional excellence and service to the Nation as an officer in the United States Army. (Goldbook, USMA, 2015, p. 3)

To accomplish this, USMA maps their entire curricula back to character development including in the physical program.

It is the mission of DPE at USMA to “develop warrior leaders of character who are physically fit and mentally tough engaging in activities that promote and enhance physical excellence” (USMA, Whitebook, 2019a, p. 2). The DPE accomplishes this in its program by providing cadets via curriculum, competitive sport competitions, evaluation, feedback, and fitness level testing. These developmental experiences and requirements support the fulfillment of DPE’s vision statement to “create a cadet-centered educational environment that provides a militarily relevant and scientifically-based physical development program, which instills the warrior ethos of physical and mental superiority” (USMA, Whitebook, 2019a, p. 5). Aligning the mission of developing warrior leaders of character with the vision of a militarily applicable and research-based physical program is essential when training individuals to fight and win the nation’s wars.

One of the ways USMA inculcates moral and social character development is through an intramural-like, competitive sports program called Company Athletics offered by DPE. Participation in this setting allows cadets to experience constantly changing conditions that invoke emotional states associated with head-to-head competition such as ones of excitement, elation, and accomplishment, while also providing an opportunity to experience hostility, discouragement, and aggression. Dobel (2015) found that physical activity links one’s cognitive and emotional characteristics “to forge a unity of perception that carries both cognitively shaped and emotionally charged perception of a situation that guides judgment and action” (p. 320).
Like most games, athletic competitions in sports involve results. These results, and the way players achieve them, are dictated by the rules of the game. However, players inevitably grapple with the “balance of playfulness and seriousness in sport” (Sciarabba, 2012, p. 2). In other words, one’s goal should not only be to play to win but to also play fairly (Sessions, 2004). When playing games, including sports, “the genuine test of the moral foundation of all parties is when they face losing” (Stewart, 2014, p. 6). If winning at any cost is the priority, rules and composure have the potential to be disregarded (Stewart, 2014). The question can then be asked, “how can any competition be ethical or valid if players and coaches fail to exhibit a commitment to follow all the rules?” (Stewart, 2014, p. 6). Sportsmanship has been described as “a concern and respect for the rules and officials, social conventions, the opponent, as well as one’s full commitment to one’s sport and the relative absence of a negative approach toward sport participation” (Strand et al., 2018, p. 302). When writing about sportsmanship as a demonstration of honor, Sessions (2004) stated, “one should abide by the letter of the law of the game, but also by its spirit; one should respect the game by being a good sport, win or lose” (p. 47-48).

As noted in the literature, “athletic virtue, like most modern virtue, is sustained in relation to others seeking a shared good together” (Dobel, 2015, p. 326). This emphasizes the idea that all players should be playing the game with an overall mutual understanding of sharing the experience of playing, not just winning, the game accomplished by encouraging and providing players the opportunity for reflection of actions, reactions, failures, and successes to identify and discuss afford the ability to learn and get better. According to Dobel (2015), the determination to continually choose actions achieving a virtuous “good” depends on the capacity for personal courage by a player or team being displayed. Sportsmanship in physical education was discussed more than 80 years ago by C.H. McCloy who developed a curriculum approach to building...
character through physical education (Bolter et al., 2018). McCloy created “a list of sportsmanlike outcomes that physical educators should nurture among students, including showing respect, playing fairly, and cooperating with others” (Bolter et al., 2018, p. 209).

Social-emotional benefits to what sport education curriculum can achieve have continued to be supported in the literature. It is still accepted that “fostering social responsibility and building character is an important quality of PE and sport, as participation has the potential to advance moral reasoning skills, foster prosocial behavior, and improve sportsmanship among its participants” (Pennington, 2017, p. 36). Schaefer et al. (2019) determined that in intramural sports competition, attributes such as adherence to rules, positive interactions, self-improvement, and teamwork are character attributes that are relevant to sportsmanship while also being applicable in the context of a military academy graduating leaders of character. Ideally, Company Athletics at the USMA requires cadets acting as coaches, to utilize leadership skills to build “teams of significance”. These are teams that combine a collection of individuals united by a mutual pursuit striving towards a common goal of winning (CIR 28-1, USMA, 2019b).

The struggle to not vie against one’s community’s ethics like winning, teamwork, and loyalty (Rudd, 2005) while employing one’s self-improvement and right actions is a dilemma faced in sports at times. Such challenges can translate beyond sport to the Army profession (Doty & Lumpkin, 2010). In sports, Rudd (2005) explained that two ethical constructs exist: social character and moral character. Social character could be defined as right actions (demonstrated by self-sacrifice) and attitudes (displayed by honesty and fairness) (Rudd, 2005). Therefore, he asserted that teamwork and loyalty could conflict with an individual’s moral character of respect (perhaps for the opponent), fairness (towards the rules of engagement), and honesty with regards to the rules as well as competing with the right motives. An over-emphasis on social character
virtues (i.e., loyalty and teamwork) can negatively impact individual moral character (i.e., honesty, fairness, or respect). This emphasis during an individual’s development could be placed on them by coaches, their parents, and possibly even their peers (Rudd, 2005).

Sports competitions allow an environment for individuals to choose instantaneously, right from wrong, and do so willingly. Dobel (2015) cited that “virtuous activity results from cooperative learning, practice, reflection, and more practice to integrate educated emotions and cognitions that play out in perception or discernment of a situation” (p. 320). In sports, an individual’s choices and actions not only affect one’s status in the game but quite possibly their team’s as well. When the players engage in games understanding that while competing to win, they can also all learn together through participation, reflection, and repetition.

The Army profession, like sports, incurs the challenge of displaying rapidly occurring situations requiring ethical choices that necessitate extensive exposure to and training for leaders (United States Department of the Army, 2015). One of the outcome goals of military education is to certify that the future officers possess the requisite character and personal courage to face challenging and demanding situations while leading others (Boe et al., 2015). At USMA, DPE has been tasked with designing curricula that develops the warrior ethos in students while promoting physical excellence in a live learning environment, utilizing sport to promote character development via its Competitive Sports program (USMA, Whitebook, 2019a). Over half the students attending the USMA participate in the intramural program Company Athletics. Cadets are faced with the task of assigning other cadets to teams as coaches or players, while others are assigned as officials or referees, and others as those in charge of the daily operation of competition and orderly play. Each of the sports is overseen by a faculty mentor from DPE acting as a Sport Educator with the responsibility of mentoring the cadets through an established
cadet chain of command (USMA, 2019b). This mentoring process transcends athletic administration and finds its importance in identifying acts of sportsmanship, and conversely, being able to lead discussions on displays of gamesmanship. As research has shown, much depends on physical educators having a wider array of ways to positively affect students’ “sound development and engagement in physical activity or quite opposite discourage them from physical activity on the false idea that sport is a separate sphere of human behaviors” (Bronikowska et al., 2019, p. 2). Additionally, the role of sport educators is in moral education, therefore including not only professional knowledge, but also moral competencies in students (Bronikowska et al., 2019).

The DPE at USMA is an equal blend of “Army officers in the rank of captain or major, almost all of whom have been deployed in combat in either Afghanistan or Iraq” (Matthews et al., 2009, p. 130) and civilian instructors who have obtained a minimum of a master’s degree in a sports science field. These officers, along with civilian faculty, provide personal experiences and research-based information “that may guide more formal scientific protocols aimed to improve soldier performance in high operations tempo deployments” (p. 130). According to Schwamberger and Curtner-Smith (2017), the outcome goal of sport education is to develop students culturally to recognize “the difference between exemplary and poor sporting behavior and uphold the positive traditions of sport, and enthusiastic sports people who make every effort to preserve what is best in the culture of sport” (p. 429). In other words, sport education should provide the laboratory environment for students to display moral and social character simultaneously, not by just recognizing poor sportsmanship or dishonesty, but also by valuing honesty and fair play while competing to win within the rules and constructs of the game despite any surrounding peer pressure within the culture or community they are immersed in. Rewarding
these behaviors reinforces the internalization of making the right choice for the right reason under chaotic and changing conditions (Schwamberger et al., 2017, p. 36).

Sportsmanship and character are instrumental when competing or playing games and make it possible to play regardless of whether all those playing know all the rules (Sniderman, 1999). This is because participants, when they initiate play or competition, enter an unspoken agreement to cooperate to act as if they do know them. In this way, according to Sniderman, games do not differ from any other “rule-governed systems – including law, politics, war, morality, education, economics, and language” (p. 22). The training received from leisurely or entertaining and competitive games are directly transferable to real-life scenarios (Sniderman, 1999). As a result, sports are considered “to provide a vehicle for learning to cooperate with teammates, negotiate and create solutions to moral conflicts, develop self-control, display courage, and learn virtues such as teamwork, fairness, and a good work ethic” (Gaines, 2012, p. 30). Although sports provide a vehicle for these positive attributes to be realized, character development is not an assured outcome of sport participation (Gaines, 2012). Sport education, however, “is considered to be an excellent medium through which to develop students’ concepts of moral and sporting behavior” (Schwamberger & Curtner-Smith, 2018, p. 1).

**Military Profession**

As a profession, the Army exists to fight and win the nation’s wars through combat while also being morally committed to supporting and defending the Constitution of the United States (United States Department of the Army, 2015). Because of this, leaders at all levels in the chain of command must establish the acceptable actions of their soldiers, being assured that they operate according to their defined rules of engagement, and when called for, the law of war (United States Department of the Army, 2015). Therefore, Army Ethic and Army Values were
established to provide Army professionals with ethical expectations to adhere to, as well as defend. The Army recognizes character as being an essential component of successful leadership (Gerard, 2014). While character can be displayed through actions, it also helps to determine right actions from wrong (United States Department of the Army, 2015).

Soldiers recognize and accept the potential danger to their own lives, as well as possibly being required to justly take the lives of others to accomplish the mission (United States Department of the Army, 2015). The requirements of the Army professional, “regardless of age, rank, or location, is the repetitive exercise of discretionary judgments” (Snider, 2015, p. 48) where decisions are made continuously on a daily basis that are “highly moral in that they directly influence the well-being of other persons” (p. 48). Because of this, the Army has accepted an Army Ethic which provides soldiers with a moral direction. Former Chairman of the Joint Chiefs of Staff General Martin Dempsey emphasized that “the military must pay as much attention to character as it does to competence” (Allen, 2015, p. 71).

The Army Ethic, for soldiers, answers the question as to why they are required to live by, as well as defend, moral principles in combat and decision making. Situations, often under immensely difficult and chaotic conditions, require contemplation coupled with serious consideration, as to determine not only what needs to be done, but also why that action needs to be taken (United States Department of the Army, 2015). Military leaders must develop soldiers who are able to evaluate the options available to them, decide what is the right course of action, and work as one unit to complete the mission (Allen, 2015). As Snider (2015) identifies, “this is particularly true of a profession such as the military because its lethality places it in the killing and dying business” (p. 48). Those decisions are made based on their understanding of Army Ethic and Army Values which are the standard (United States Department of the Army, 2015).
In today’s current military landscape, wartime and peacetime are challenged by new and untraditional front lines, as well as methods of conducting warfare, which have precarious implications for what the military is permitted to do (Whetham, 2016). War takes place under circumstances where “states, and individuals acting on behalf of those states, are permitted to carry out acts that are otherwise prohibited, including the deliberate and premeditated taking of human life” (Whetham, 2016, p. 58). Nations have previously agreed upon the rules of competition or war, when developing the Just War tradition. Just War outlines governance for what is and what is not acceptable in times of war and peace. Its morally altruistic boundaries form the basis that there should be restrictions on when the use of force can be considered legitimate along with left and right limits regarding on what and whom that force can be enacted upon. In literature, Whetham (2016) described the Just War as:

actions that can cause harm to others be undertaken only if there is a compelling, morally justifiable reason, that they are undertaken with the right intentions, authorized by those who have the legitimacy to sanction the suspension of the normal principles, that the harms that the action may produce in both the short and the long term are proportional to what is at stake, has some prospect for success, and that there are not alternative options that may do less harm and still produce results. (p. 63)

Therefore, since strong moral and ethical fundamentals are critical for the Army to operate amid new, unconventional battlefields, Allen (2015) recommended establishing “evidence-based developmental programs on individual character and moral development and develop empirically validated research instruments to assess ethical climates” (p. 69). This is because military leaders place an over-emphasis on developing individual and unit military training with little to no development in their moral character and how it relates to a soldier’s
military aptitude (Allen, 2015). As Traven (2015) reported, when “moral capacities are engaged, intuitive heuristics that shape how people morally evaluate the infliction of intentional harm influence how individuals judge the morality of killing in war” (p. 558).

Conflict brings with it continuously changing environmental conditions requiring soldiers to differentiate between civilians and combatants. These two groups also define those who cannot be lawfully killed and those who can (United States Department of the Army, 2015). According to the Army Ethic, “rapid changes in the nature of armed conflict present ethical challenges to mission accomplishment” (United States Department of the Army, 2015, p. 2-2). Normal considerations regarding the use of force have today become more complicated since conflict has implemented new landscapes that “challenge old notions of what it is to be at war, or even the idea that war is the exception to peace” (Whetham, 2016, p. 56). Previously, these normal considerations of force and conflict came from the notion that “from pre-modern tribes to highly advance civilizations, human societies have created a varying range of elaborate rituals and normative codes that attend the use of organized violence” (Traven, 2015, p. 557). The Just War Tradition, therefore, would represent “a common language for discussing and debating the rights and wrongs of conflict” (Whetham, 2016, p. 56).

Just War Tradition “can help to structure decision making as the factors it asks us to consider should be taken into account before and during any use of armed force” (Whetham, 2016, p. 63). This requires a “compelling, morally justifiable reason” (p. 63), that can only be authorized “by those who have the legitimacy to sanction the suspension of the normal principles” (p. 63). Considerations by those authorizing agents would agree with Traven (2015) who focuses on answering two principles. The principle of distinction, referring to the battlefield, holds that “states are required to distinguish between military targets and non-military targets”
where purposeful attacks on civilians or their property and places are considered war crimes. The principle of proportionality is the mutual understanding of “the accepted fact that civilians are likely to die as a result of war, and it is intended to make sure that civilian deaths do not cross a certain threshold” (p. 559).

Therefore, as Gayton (2015) points out, “a sound character has long been thought to be necessary for individuals who operate in the military” (p. 857). Gayton posits the difference between a person of character and a leader selected for their personality. He determined that “personality concerns differences among individuals in the style of their reactions to circumstances, character concerns the values that channel one’s actions and behaviors” (p. 857). This adds importance to Allen’s (2015) claims to suggest that military leaders “improperly focus on developing individual and unit military competence, when it should have been all along more equally divided between developing their moral character and their military competence” (p. 71).

To expand on this, Allen (2015) concluded that the Army should be obliged to address this in two forms. First, it should “use research from social and behavioral sciences to develop evidence-based developmental programs with measures of effectiveness for individual character and moral development” (p. 82). Besides providing these programs, Allen also suggests the Army “incorporate or develop empirically validated research instruments to assess ethical climates” (p. 82). Sookermany (2017) also suggests that “there seems to be good reason for arguing that preparation for the unpredictable should play a pivotal role in military education” (p. 310) and emphasized that “today’s complex operations can never be fully covered by manuals and rules of engagement” (p. 312). Responses will instead depend “on individuals whose judgment is well developed and mature” (Sookermany, 2017, p. 312).
Boe et al. (2015), when investigating an observational instrument to measure character strengths displayed by cadets at the Norwegian Military Academy during military field exercises, identified 12 character strengths for measure. These were “leadership, integrity, persistence, bravery, citizenship, fairness, open-mindedness, social intelligence, love of learning, perspective, self-regulation, and creativity” (p. 1127). In the US Army, “bravery, zest, fairness, honesty, persistence, optimism, leadership, self-regulation, and teamwork” (Callina, et al., 2018, p. 5) are considered essential for soldier performance. When investigating the development of a set structure of character attributes at USMA, Callina et al., (2018) examined 15 attributes to include “bravery, empathy, gratitude, grit, hardiness, honesty, integrity, intellectual humility, intentional self-regulation, leadership, optimism, purpose, relational humility, social intelligence, and teamwork” (p. 5). Schaefer et al. (2019) explained that sportsmanship “has been connected to other moral and social character domains, including moral reasoning, leadership and conflict resolution, and organizational citizenship behaviors” (p. 290). Therefore, they felt it was vital to evaluate the extent to which sport positively influences moral virtues and prosocial behavior on and off the playing field” (Schaefer et al., 2019).

At USMA, developmental experiences are structured into four programs consisting of academic, military, physical, and character (Callina et al., 2018). Each of these programs has multiple pedagogical structured activities that develop some factor of character by providing experiences that also lend to leader development (Callina et al., 2018). There is no one course or designed experience capable of developing all components of character for cadets (Callina et al., 2018). It is the coordinated efforts of all four of USMA’s pillars (academic, military, physical, and character) that provides cadets the 47-month experience that link these experiences to their character development. Research has determined that execution of character education alongside
course work and “student building activity” is ideal in higher education” (Indroasyoko et al., 2020, p. 68). The CSI was developed as a rating scale containing 12 components important to the USMA (Schaefer et al., 2019). These 12 components include items observing cadets correcting teammates, overly aggressive, arguing with referees or opponents, striving to improve, easily frustrated, performing well under adversity, willingness to take on any role, overly critical of teammates, improving teammates’ performance, positive despite setbacks, accept corrections from their coach or teammates, and blaming others for mistakes (CIR 28-1, USMA, 2019b).

What, then, should this military education look like? For one thing, the firmament of military education is shouldered on the mission of developing capable soldiers to “form military units that are relevant and capable of carrying out a state or nation’s political intent by utility of violence” (Sookermany, 2017, p. 314). Callina et al. (2017) reported that “identification of character development processes, and their promotion and assessment in different environments, can provide information about how to structure contexts to facilitate character development” (p. 10). Still, Sookermany (2017) points out, “the role of military education in developing future soldiers is one of cultivating judgment…with the purpose of solving the tasks and challenges they are faced with at any time-predictable or not” (p. 312). Further investigation can indicate if a relationship exists regarding how the character displays of sportsmanship on the field connect to attributes of positive character military professionalism training at the USMA.

**Character and Sportsmanship**

It has long been postulated that sport builds character (Docheff, 1997). However, without character development being an intentional outcome goal, what sports provide are continuous opportunities to display or enact character. In this light, “sport can be seen as a laboratory of human experience” (Pennington, 2017, p. 37). Competition, including sports, can be an
enjoyable, as well as an ethical, real-life environment that can “foster important life skills, none more important than the ability to deal constructively with competitive stresses” (Shields & Bredemeier, 2011, p. 25).

As Lumpkin (2011) describes, “ethics is a matter of being good (character) and doing right (action). Sportsmanship is a matter of being good (character) and doing right (action) in sport” (p. 13). Schaefer et al. (2019) define character as “doing the right thing at the right time” (p. 288), while “moral conduct refers to actions performed regarding rules that apply in a given social context” (Pennington, 2017, p. 37). In sports, an athlete of character is viewed as one who is “honest, fair, responsible, respectful, and compassionate” (Rudd, 2005, p. 205). Each of these investigators then agrees that character is evidenced by behaviors.

According to Rudd (2005), character is also associated with social and moral values. Social character consists of values such as “teamwork, loyalty, self-sacrifice, and perseverance”, while moral character is associated with values like “honesty, fairness, responsibility, compassion, and respect” (p. 206). Rudd also determined that many sport sociologists “define character with social values like teamwork, work ethic, or loyalty as opposed to moral values such as honesty, fairness, and responsibility” finding that this was based on the “capitalistic economy and ‘mentality’” of American culture where those values were thought to be in keeping with America’s corporate nature (p. 207). Therefore, coaches, parents, and society came to understand character more in terms of social values such as teamwork and loyalty to one’s team, rather than moral values like honesty and fairness (Rudd, 2005) overall.

According to Pennington (2017), “a strong belief exists among those who value competition and play, that PE (physical education) and sports programs have the power to promote the development of sportsmanlike behaviors and ethical decision-making skills” (p. 41).
To compete in the context of sports is to play to win (Sessions 2004; Shields & Bredemeier, 2011); however, an argument can be made that “unless a competitor plays fairly, he or she isn’t really playing the game at all” (Sessions, 2004, p. 48). In this light, sportsmanship could be defined “as a matter of honor among competitors in a given sport” (Sessions, 2004, p. 50).

The “win at all cost” approach to playing sport is often emphasized during a competition’s most embroiled moments (Strand et al., 2018). Stewart (2014) identified that when winning at all costs is the objective of an individual or a team, an obvious disregard to rules and structure of the game is displayed and often justified as determination, hard work, and a “will to win”. To compete with a win at all cost mindset may lead to behaviors contradictory of the tenets of sport and competition (Sciarabba, 2012). However, Rudd (2005) describes a player’s moral character as linked to “knowing what is morally right, values what is morally right, and he is able to act on what he knows and values” (p. 208-209). Therefore, players’ displays of fair play even when other players around them play unfairly (Rudd, 2005) demonstrates their value of moral character. Dobel (2015) describes a player displaying moral character as a “responsible actor” (p. 322). This is a player who dedicates themselves and their efforts to “learn the skills required to achieve a goal” (Dobel, 2015, p. 322). Taking on this responsibility to put forth effort towards improving gives playing and competing “more ethical value” (Dobel, 2015, p. 322) and allows them to experience “the joy and satisfaction of achievement as well as the moral pain and recrimination that accompany failure” (p. 322).

According to Askoy and Gursel (2018), it is thought that fair play is the model for ethical conduct, which can be achieved through sports competitions and inculcated to other areas in life. This is because sports do feel like other activities or occurrences in life where “we can get immersed in the event though we may know intellectually that they are artificial constructions”
Sports can be played according to moral character in certain situations while suppressing it in others (Sniderman, 1999). An example of this is when a player “might intentionally and unashamedly foul or fool an opponent” (Sniderman, 1999, p. 18) displaying in these instances “the principle ‘to win no matter what happens’” (Askoy & Gursel, 2018, p. 426).

Having identified sportsmanship and fair play as adhering to accepted rules of the game and respecting other teams, players, and the spirit of the game being played, gamesmanship involves aspects contrary to sportsmanship (Strand et al., 2018). Strand et al. identified the definition of gamesmanship as,

> the attempt to gain competitive advantage either by an artful manipulation of the rules that does not actually violate them or by the psychological manipulation or unsettling of the opponent (or sometimes the officials), whether this be by intimidation, nondisclosure of information, outright deception. (p. 303)

Gamesmanship consists of efforts to purposefully manipulate rules or intend to not be an active participant in assisting in the adherence to rules that are implemented to ensure the integrity of the game (Strand et al., 2018). Therefore, gamesmanship tactics, according to these definitions, can include playing with an argumentative or aggressive demeanor, purposely breaking the rules, and refusing to assist in enforcing or abiding by the rules.

An individual’s moral and social character being challenged through sport and competition has been previously discussed. Sciarabba (2012) observed that “there is confusion about the balance of playfulness and seriousness in sport” (p. 2). There can also be some personal ethical dilemmas that manifest during competition. These ethical risks (or risks to one’s moral character) include “promotion of revenge, glorification of violence, encouragement of aggression, normalization of uncontrolled reactions, worship of victory, exaltation of pride,
derogation to the values of solidarity” (Sciarabba, 2012, p. 4). Rudd (2005) identified that respect for others is a component of character including character in sports. Doty (2006) identifies respect as “how you treat and regard others” (p. 4). Therefore, displays showing a lack of respect, or a lack of sportsmanship, include “taunting, trash talking, yelling at a coach or referee, cheating, or running up the score against an inferior opponent” (Doty, 2006, p. 4) or excluding respectful behaviors like “shaking hands, helping a teammate or opponent, and listening” (p. 4).

There has also been found to be statistically significant evidence of gamesmanship by sport type (Strand et al., 2018). This study showed that “contact sports multiply the opportunities to break the rules” (Sciarabba, 2012, p. 5). It has also been suggested that “the longer a person engages in a sport, the more negatively affected their moral reasoning” (Strand et al., 2018, p. 304). In terms of gender differences, “the increased intensity of competition pushes the male population to exhibit greater levels of violence, whereas the female population exhibits greater theft” (Sciarabba, 2012, p. 4). Strand et al., (2018) found that “male athletes are more likely to accept questionable behaviors in the context of gamesmanship than are female athletes (p. 313). Although it has been suggested that the longer one plays a sport there is a correlation to reduced moral reasoning, Strand et al. (2018) determined “no differences were found between college athletes of freshman, sophomore, junior, and senior status on their judgment of acceptable gamesmanship practices” (p. 315).

Still, playing games is an important part of culture (Middleman, 1970). Behavior learned by playing games is mostly learned because games have an unknown outcome (Middleman, 1970). If the participants knew the outcome before playing the game, the exhilaration of playing would no longer exist (Middleman, 1970). However, “while the goal of winning or succeeding is being pursued, the learning of certain behavior that has transferable potential to real-life
situations also occurs” (p. 47). It is in the pursuit of winning, or how the person plays the game, where learning behavior is realized. This is how games, or in this case sports, can be connected to the metagame. Thomas Szasz shared that “it is better – that is, more rewarding in relation to the spectators and his own self-image – to be a fair loser than an ugly winner. The ugly winner could win the game but lose the metagame” (as cited in Middleman, 1970, p. 50).

Therefore, the best player may not be the most physically dominant individual playing the game. Instead, the best player is one who plays the game well with others so that they are successful as a team, and this gives everyone the best chance to continue playing. If each player performed similarly due to having that mindset, every player would value playing the game. Peterson (2013) describes how in motivation, there is an underlying process that relies on transmitting “implicit behavioral pattern to explicit communicable form” (p. 17). Meaning, all the players will know who the good player is as defined by good sportsmanship and why that player is good because on and off the playing surface, players talk to one another and share their good and bad experiences.

The end state is that “recreational activities, such as sports, are potential avenues for understanding contextual specificity of character development” (Schaefer et al., 2018, p. 288). Either way, a game is meant to be fun (Sniderman, 1999). However, it is difficult to experience enjoyment through playing when respect for the rules or others has been ignored since “playing the game itself is more fun than playing the meta-game of arguing” (Sniderman, 1999, p. 21). Sosik et al. (2017) determined there are “behavioral manifestations of aspects of character, such as honesty/humility, empathy, moral courage, and self-control” (p. 2). These are just a few items that can be used for measuring or observing character including in sports.
Observing character in sports involves the concept play and rules. A person’s character can be described as who they are and what values they have adopted (Hannah & Jennings, 2013). Typically, attributes such as trustworthiness, respect, responsibility, and fairness would all be thought of as components that make up character. Hannah and Jennings (2013) defined character as the “internalizing into one’s identity and moral self those principles and ideals that the collective to which the individual belongs hold in highest regard” (p. 9). Although, that is not specific to “good” character alone. The same holds for someone whose actions display principles and ideals that would be characterized as having “poor” character where they, too, hold firmly to less desirable attributes. To be sure, someone displaying moral character of higher standards should display virtues such as honesty, respect, and empathy. Playing the games well would mean playing according to the rules in a way that enables everyone to gain from the experience of simply playing the game (Middleman, 1970).

Considering the mission of USMA to graduate commissioned leaders of character (USMA, CIR 28-1, 2019b), the DPE’s supporting role in accomplishing that mission, which is to develop warrior leaders of character using a militarily relevant and scientifically based program, provides Company Athletics as a laboratory setting for cadets to display observational evidence of character while participating in the constantly changing environment of sports (USMA, CIR 28-1, 2019b). There, as cadets compete to win immersed in their community and culture, they are assessed according to their level of demonstration of sportsmanship in response to sport education. As they continue to develop according to objective attributes, the outcome goal is to emerge as ethical leaders with requisite qualities for the Army profession. According to former Army Chief of Staff General Raymond Odierno, the “foundation of our profession is centered on
trust…it will take every measure of competence and commitment to forge ahead and above all, it will take character” (Allen, 2015, p. 73).

Results of Askoy and Gursel (2018) showed “that intervention programs aim to strengthen social values and attitudes have the potential to positively influence ideas and attitudes related to fair play and possible self-control within a short period of time, especially in sports areas” (p. 428). In the terms of research, according to Sosik et al. (2017), the few experimental investigations “of character and ethical leadership have been conducted primarily in business and educational contexts while largely ignoring military contexts, where character is valued for sustaining strong ethical climates and often tested in extreme operational contexts” (p. 766). For this reason, there is a call for an investigation into “standards-based approaches to assessment and evaluation direct teachers’ attention to explicit achievement-focused criteria for student learning” (Michael et al., 2016, p. 277).

**Sport Education**

Character development, by means of sport, does not just happen because one participates in athletics. The curriculum must be planned, designed, and continuously assessed to show achievement of outcome goals related to character development (Pill & Hastie, 2016). It requires structure, well-defined function, and vehicles for the development of character to be considered and put in place prior to the first game. Sport education is a pedagogical method intended to incorporate playing sports activities to achieve these outcome goals by setting a formal competition schedule, establishing teams, providing a culminating event, and offering explicit roles outside of solely being a player, to include officials, coaches, and administrators (Liang et al., 2016).
According to Luguetti et al. (2019), sport education is “defined by standards of excellence, ‘goods’ that are derived from the pursuit of excellence, and virtues such as honesty, justice, and courage that are necessary to achieve these ‘goods’” (p. 79). Part of that experience still involves the role of the sport educator overseeing the competition while guiding the reflective process for the participants (Liang et al., 2016). Displays of fair play or gamesmanship can be addressed by the sport educator with the student coaches who then may return to their players to continue further dialog and develop from the experience. According to other studies, the research identifies successful character in sport programs as those that encourage the most constructive results and generally “include a safe physical environment, as well as the presence of supportive relationships” (Ettekal et al., 2018, p. 30). Ettekal, et al. also reported that deliberate planning through efforts that include “positive coaching behaviors, addressing conceptions of competition, and providing opportunities for character development” (p. 30) are needed.

Designing a curriculum to address character in sport from an educational standpoint has its challenges. However, research shows that sport education intentionally focused on specific outcome goals can succeed (Pennington, 2017). Ettekal et al. (2018) found that character education should look to focus on students internalizing specific character attributes. This type of targeted educational approach involves “taking advantage of teachable moments, discussing scenarios” (Ettekal, et al., 2018, p. 39). It succeeds because the sport education model affords students social responsibility (Pennington, 2017) while also allowing for a guided reflective process (Liang et al., 2016). Research has also found it to be an effective pedagogical process for developing students’ perception of social and moral character in the crucible of sporting behavior (Liang et al., 2016; Wahl-Alexander et al., 2017). Allowing students to participate in sports can
help them “learn about themselves and how to handle adversity; and experience teamwork and sportsmanship” (Pennington, 2017, p. 41).

To complete its mission, USMA “promotes the development of character attributes through a variety of academic and experiential channels across diverse programs and initiatives, representing academics, military training, athletics, and the Army Ethic” (Arbeit, 2017, p. 282). Roughly 25% of the new lieutenants that come into the Army each year receive their education and instruction from USMA (Matthews et al., 2009). Part of that is the inculcation of the Army Ethic’s moral standard which is “based on the Army as a profession and the individual as a professional, highlighting virtues such as loyalty, duty, respect, selfless service, honor, integrity, and personal courage” (Arbeit, 2017, p.280).

The faculty at USMA bridges the gap between traditional academic research and the eventual challenges faced by soldiers and their leaders in operational settings (Matthews et al., 2009, p. S130). This includes an experiential curriculum in the physical program. The DPE at the USMA employs a mandatory intramural program that models sport education. Students are assigned in leadership positions to not only coach, play, coordinate, and manage athletic competitions, they are also responsible for individual accountability and effective relationship skills by building teams (USMA, CIR 28-1, 2019b). Civilian and military instructors in DPE are assigned as sport educators to mentor student development, offer direction, and guide reflection after a competition among student coaches. This component is critical in providing the developmental environment. Schwamberger and Curtner-Smith (2018) reported that “PE teachers who do not require their students to deal with moral dilemmas and use direct teaching styles are unlikely to enhance their charges’ moral development” (p. 2). Pennington (2017) supports this idea, maintaining that “if we teach students to think critically and reason morally to
the same extent that we teach and perfect their motor skills, moral development can and will increase, with accompanying moral behavior changes” (p. 40).

Liang et al. (2016) describe a sport education model as providing seasons, competitions, keeping track of wins and losses, a postseason, and “festivity”. It also is based on the season having “levels of formal competition, with early lessons focused on preseason preparations including team management and game practices” (Liang et al., 2016, p. 170). Other aspects important to setting up and providing a successful sport education experience include the tracking of wins and losses, creating team standings, promote a venue of an event-like atmosphere leading up to an eventual champion (Liang et al., 2016). However, since development and reflection are also critical aspects of sport education, a teacher, or mentor, is provided and responsible as the season progresses, to migrate from direct teaching paradigms to facilitating a student-led approach. These sport educators are vital because deliberate efforts are needed to ensure development (Ettekal et al., 2018). Educators are present to provide “positive coaching behaviors, addressing conceptions of competition, and providing opportunities for character development” (Ettekal et al., 2018, p. 30).

Without a purposeful curriculum implemented by sport educators, character development is not an assured outcome. According to research, “coaches also demonstrated difficulty articulating how they helped support athletes’ personal development through sport, thus suggesting weak procedural knowledge” (Banwell & Kerr, 2016, p. 13). Coaches’ inability to define what personal development is, only proves they lack the ability or faculties to speak to processes regarding the planning necessary for providing personal development through sport. At USMA, the very foundation for playing sport is based on a cadet’s personal development particularly their character (USMA, CIR 28-1, 2019b). Therefore, in the intramural program
Company Athletics, sport educators are in place to provide a pedagogical experience with a specific intention to provide character development as a primary outcome goal.

**Character in Sport Assessment**

Building upon character in sport research (Pennington, 2017) and sport education (Ettekal et al., 2018), this investigation incorporated research accessed solely from the assessment of sportsmanship using the CSI at USMA and its predictive relationship between class, age, gender and type of sport. Character education, to include sport education, should make use of “approaches that promote internalization of specific character attributes the program targets” (Ettekal et al., 2018, p. 39). According to Ettekal et al. (2018), more research is needed on character education in sport, however, since “sport is a dual-goal setting focused on winning and life skills, future research should also disentangle the relation between the development of character attributes and performance outcomes (winning records)” (p. 39). A commonly occurring challenge in military research is how to harness the academic expertise of civilian resources and involve them in research with considerable implications in a field they are most often unacquainted with (Matthews et al., 2009).

As an institution, USMA “promotes the development of character attributes through a variety of academic and experiential channels across diverse programs and initiatives, representing academics, military training, athletics, and the Army Ethic” (Arbeit, 2017, p. 282). The physical program at USMA is committed to its mission to develop warrior leaders of character who are physically fit and mentally tough (USMA, Whitebook, 2019a) which is part of USMA’s overarching mission to graduate commissioned leaders of character committed to the Army values of Duty, Honor, Country. Since character development is inculcated throughout all
four pillars (academic, physical, military, and character) of USMA, it is important to assess how well students are internalizing these values.

A military education should prepare students for future operations by providing conditions that are constantly changing, unpredictable, and somewhat unknown (Sookermany, 2017), which are conditions often experienced in sports. It is in this way that the virtues displayed in a sports competition might materialize in other contexts important to cadets (Schaefer et al., 2019) including displays of military professionalism. It is for this reason that it is necessary to provide a process in one’s military education that can provide an opportunity to repetitiously experience the unpredictable (Sookermany, 2017).

As stated by Schaefer et al. (2019), it is well recognized that individuals in specific professions may share fundamental attributes. For instance, “military servicemembers may share the character virtues of courage and loyalty” (Schaefer et al., 2019, p. 288). As Sookermany (2017) points out, from a standpoint of professional development, there is a need to rehearse the skills and procedures required of scenario-based pre-planned events to conduct military operations. However, being pre-planned, it lacks an opportunity to prepare for the unknown and unforeseeable. A more complete educational experience in developing future soldiers is one of encouraging moral reasoning under pressure. The focus should promote the ability to analyze and recalibrate meaning where it is needed with the available resources. The purpose is to solve for the challenges predictable or not (Sookermany, 2017, p. 312).

The structure of Company Athletics is designed for cadet participants to think critically and act appropriately to facilitate social and moral character practice in a values-oriented engaging environment (USMA, CIR 28-1, 2019b). Displays of sportsmanship and fair play, as well as evidence of gamesmanship, are identified, discussed, and used as markers to gauge
comprehension and ownership of the development of these components of character. In Company Athletics, cadets are given a grade that corresponds to how they display these attributes (see Appendix A). The process tracks each cadet individually through ratings by their peers on measures of displays of sportsmanship.

Sciarabba (2012) determined gender differences do exist once the intensity of competition increases. Women were first admitted to USMA in 1976 (Bedard et al., 2017). Concerns regarding gender differences have ensued (Bedard et al., 2017) and are still deliberated. However, due to empirical physical and physiological differences, gender integration cannot be eradicated by instituting a movement to one standard. Instead, as discussed by Bedard et al. (2017), it “requires deliberate thought and constant evaluation” (p. 42). Other studies found that because “character strengths and their correlates may differ for men and women across the life span and education we measured leaders’ age, gender, and education” (Sosik et al., 2018, p. 773). Consequently, this investigation looked to see if a predictive relationship exists between Character in Sport scores and gender. Finally, since contact sports also provide greater challenges to one’s display of sportsmanship and fair play (Sciarabba, 2012), this investigation will similarly look to see if a relationship exists between CSI scores and the type of sport played.

A previous study involving the CSI focused on its validity to predict a student’s ability to succeed at USMA overall (Schaefer et al., 2019). That would include correlating data to a student’s academic grade point average called the Cadet Performance Score. The CSI is 20% of a student’s Physical Performance Score which is their physical pillar grade. That physical grade is 15% of the Cadet Performance Score. This is important to note since this character grade is included in a cadet’s physical pillar score. The Military Performance Score is 30% of their Cadet
Performance Score (USMA, Whitebook, 2019a, p. 19). The military program provides
curriculum, field operations, and leadership experiences.

Although studies have researched the CSI as an assessment of character attributes and its
importance overall concerning cadets success at USMA (Callina et al., 2018), this review of the
literature indicates importance for investigating the predictive relationship between CSI scores
and class, age, sport, and gender to further evaluate the relationship of practiced character
development through sportsmanship and observable military ethic and professionalism in the
development of commissioned leaders of character.

**Females, Leadership, and Sports**

According to studies, the overall trend of females gaining initial access to an organization
with little advancement towards positions of leadership and authority still exists (Pape, 2020).
However, much of the gender differences investigated has sought to explain conditions where
males and females complete different tasks within the same organizational setting (Pape, 2020).
According to Åstrand et al. (2003), many have the opinion that the physical performance of
females cannot compare to that of males in sports (as cited in Meyer-Parlapanis et al., 2017).
More recent findings suggest that gender differences “become less significant under consistent
training conditions” (Meyer-Parlapanis et al., 2017, p. 3). Men’s sports have often been
associated with war in the media and academics. Bairner (2001) found that “sport and war
represent two of the most emotive issues in the modern world, with the sense of nationhood and
community between strangers during war times equaled only during major sporting events” (as
cited in Bowes & Bairner, 2018, p. 396). However, there has been an increased acceptance of
female athletes and their athletic capabilities as a result of greater participation of women in
sports which has then led to less prevalence of “the traditionally masculine traits of aggression and toughness as they relate to the athletic competition” (Bowes & Bairner, 2018, p. 406).

In 1972, Title IX of the Educational Amendments to the 1964 Civil Rights Act was established “banning gender discrimination in federally funded educational institutions” (Stevenson, 2010, p. 284). This required schools to raise female athletic participation rates equal to their male athletic participation rates. In the first six years, from 1972 to 1978, female athletic participation rates increased from 1 in 27 to 1 in 4 (Stevenson, 2020). Research has reported that approximately “3 million women participate in high school, college, and professional athletics in the United States” (Bush, 2008 p. 366). From a socialization perspective, instead of stereotypical gender roles, female athletes instead, appear to develop the same competitively, from a behavioral standpoint, as male athletes (Meyer-Parlapanis et al., 2017).

Research suggests that the gender structure of leadership is important in establishing the norms that shape an organization’s broader gendered character (Pape, 2020). Pape (2020) suggests one approach is to study how leadership roles make different contributions to an organization’s gendered assignments and structure where admittance of females is suitable in one role but not the other. Since leaders establish the organization’s culture and traditions, advancement in female leadership and decision-making appointments can be made incrementally as so far as it is accompanied by support from female leaders promoting change (Pape, 2020).

Messner and Sabo (1990) stated that sport is “an institution created by and for men” according to values and customs males hold to, which is why females’ efforts to participate in sport, as well as be accepted as athletes like their male counterparts, has been constant (as cited in Bowes & Bairner, 2018, p. 397). Meyer-Parlapanis et al. (2017) claimed that just as socialization impacts sport performance, gender roles may also prove to affect sport
performance. Theberge (1994) stated that in the male-dominated culture of sports “the ideological process that legitimizes women’s sporting experience begins with the general belief that the sexes are innately different and that males are superior” (as cited in Bowes & Bairner, 2018, p. 397).

In contrast, professional basketball player Pao Gasol (2018) penned a letter supporting female coaches, particularly Becky Hammon, the assistant coach for the San Antonio Spurs, in the National Basketball Association (NBA), stating, “There are pushes now for increased gender diversity in the workplace of pretty much every industry in the world. It’s what’s expected. More importantly — it’s what’s right” (para. 29). Besides Hammon, the NBA has seen an increase in the gender diversity of females in leadership roles. Besides Hammon, Lindsey Harding (Philadelphia 76ers), Jenny Boucek (Dallas Mavericks), Natalie Nakase (Los Angeles Clippers), Kristi Toliver (Washington Wizards), and Karen Stack Umlauf (Chicago Bulls) are women currently serving as assistant coaches in the NBA (Spears, 2019). Lindsey Harding spoke to the difference she experiences as a female leading and coaching male athletes saying,

You do a lot of the little things that these guys get away with because they’re bigger and stronger. We talk about the little things, what I can see, what I can teach, and what I can do. It’s a lot of the little things that I have had to perfect to be good because I don’t have the physical attributes. (Spears, 2019, para. 26)

At USMA, female cadets, like male cadets, must be athletes. Coupled with the previously identified context that there is also a growing culture toward increased gender diversity in the world workplace, it includes the advancement in female leadership and decision-making appointments in the Army. Therefore, it was important to investigate if a predictive relationship
between cadets’ overall sportsmanship scores measured by the CSI and class, age, sport, and
gender to satisfy a gap in the research.

Summary

The Army recognizes character as being an essential component to successful leadership
(United States Military Academy Goldbook, 2019). This is because the Army exists to fight and
win the nation’s wars through swift and continual combat, possibly being required to justly take
the lives of others to accomplish the mission. As a result of this, the Army has accepted an Army
Ethic which provides soldiers with a moral direction identifying for soldiers why they are
required to live by and defend moral principles. Military leaders need to develop soldiers who
will evaluate the options available to them, decide what is the right course of action, and work as
one unit to complete the mission. The curriculum in the Department of Physical Education
(DPE) at the United States Military Academy (USMA) has intentionally included character in
sport development provided in a competitive sport setting for cadets to attain and internalize
moral and social character values, as well as behaviors contributing to good character
(Pennington, 2017). Current studies suggest that “military ethics programs that take a character
development approach must systematically promote moral understanding and practice”
(Berghaus, 2016, p. 326). Berghaus goes on to identify that character development takes place
through on-going interactions between the same individuals in the same culture, community, and
organizations they are immersed in. To function acceptably within that culture, individuals must
be aware of and respect the rules, values, and standards of that community.

The objective of this quantitative study was to satisfy this research gap and provide
educators and military leaders an understanding regarding the predictive relationship between
sportsmanship assessed in a sport education setting at a military institution of higher education by the Character in Sport Index and class, age, type of sport, and gender.
CHAPTER THREE: METHODS

Overview

This study investigated how accurately sportsmanship, measured by the Character in Sport Index (CSI), can be predicted by the linear combination of class, age, type of sport, and gender at the United States Military Academy. The proceeding explains the statistical methodology of this study. Included in this chapter is information regarding research design, research questions, setting and participants, instrumentation, research procedures, and the statistical analysis.

Design

This quantitative research study employed a correlational design. A correlational design is appropriate because correlational design examines relationships between two or more variables from a single group of participants (Gall et al., 2007; Rovai et al., 2013). The criterion variable for this study was sportsmanship. Sportsmanship, according to Schaefer et al. (2018), is defined as the opportunity to display the relationship of social skill, self-control, and moral character development as it relates to the rules or standards of a specific group or culture. In this study, sportsmanship was measured by measures of sportsmanship/fair play, perseverance, teamwork/unselfishness, attitude/coachability, and playing ability as observed by peers. The predictor variables were class, age, type of sport, and gender. Class is defined as the academic year of the participant. A plebe is a first-year student or freshman, a yearling is a second-year student or sophomore, a cow is a third-year student or junior, and a firstie is a fourth-year or fifth-year turn-back student or senior. Age was determined by the individual chronological age of the participants in years as determined by their school records. The type of sport played was determined by the intramural sports that were offered at the institution. The intermural sports
offered for the 2017-2018 academic year were basketball, flag football, functional fitness, soccer, submission grappling, floor hockey, swimming, team handball, and ultimate Frisbee. Intramural sports offered during the 2018-2019 academic year included: basketball, flag football, functional fitness, soccer, submission grappling, floor hockey, swimming, team handball, combat grappling, and ultimate Frisbee. Gender was reported as the biological sex of the participant.

Research Question

RQ: Can sportsmanship be predicted by the Character in Sport Index using the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports?

Hypotheses

H₀₁: There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2017-18 school year.

H₀₂: There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2018-19 school year.

Participants and Setting

The United States Military Academy (USMA) is in the northeastern United States and renowned as one of the world’s preeminent leader development institutions. This setting was selected because the mission of the institution is
To educate, train, and inspire the Corps of Cadets so that each graduate is a commissioned leader of character committed to the values of Duty, Honor, Country and prepared for a career of professional excellence and service to the Nation as an officer in the United States Army. (United States Military Academy, 2015, p. 3)

Character development has been purposefully prescribed across the four pillars: Academic, Military, Physical, and Character. These efforts not only include the core curriculum, but also developmental opportunities and experiences for leadership. It is the mission of officers and civilian faculty to instruct, discuss, and reinforce core values to cultivate the character development experiences of cadets.

The Office of Institutional Research at USMA provided an archival data set consisting of CSI scores for cadets from the 2017-2018 and 2018-2019 academic years. The data set contained scores on cadets that participated in an intramural-style Character in Sport program. The participants of this study were drawn from undergraduate students between the ages of 17 and 27 years old attending USMA during the 2017-2018 and 2018-2019 academic years. Unless otherwise authorized, every cadet at USMA is required to play a sport at one of the three levels of competition. The first is Division 1, categorized as National Collegiate Athletic Association (NCAA) level where a participant is recruited or can try out. The second is the Competitive Club level where a participant can try out for a team that competes with club teams from other colleges and universities in the country. Third is Company Athletics which is an intramural style program offered during the Fall and Spring semesters where cadets are assigned to a sport by another more senior cadet and the program is mostly cadet led. For this study, the research only looked at intramural sports between 2017 and 2019.
Subjects enrolled in intramurals during the 2017-2018 and 2018-2019 academic years were considered appropriate participants. This extensive inclusion allowed for a large overall sample size while it also helped to account for participant attrition experienced through data validation (Warner, 2013). Subjects unrelated to the focus of the study were removed, specifically, those cadets that were unable to participate due to injury or assigned to a position that did not require a competitive mindset. These included cadets assigned as referees/officials and those enrolled in Company Athletics Rehabilitation.

For this study, the number of participants was 8,701, which exceeded the minimum requirement of 616 for a small effect size with a statistical power of 0.7 at a .05 alpha level according to Gall et al. (2007).

The sample for the 2017-2018 academic year consisted of 3,524 males and 676 females; 1,054 were freshman, 1,120 were sophomores, 860 were juniors, 1,147 were seniors; and, 19 were cadet turn-backs who, due to deficient requirements in the academic, military, or physical programs, were required to remain for an additional one to two terms. In terms of race, 2,570 participants were Caucasian, 465 were black or African American, 426 were Hispanic, 584 were Asian, and 155 indicated they were another ethnicity.

The sample for the 2018-2019 academic year consisted of 3,731 males and 770 females; 1,077 were freshman, 1,146 were sophomores, 1,164 were juniors, 1,200 were seniors; and, 14 were turn-backs. Regarding race, 2,823 participants were Caucasian, 490 were black or African American, 444 were Hispanic, 596 were Asian, and 148 indicated they are another ethnicity.

Instrumentation
Criterion Variable

The instrument that was used in this investigation to measure the variable sportsmanship was the Character in Sport Index (see Appendix A for the instrument). Before the 2016-2017 academic year, the current version of the CSI was developed by the DPE at USMA which is the institution the subjects attended during the 2017-2018 and 2018-2019 academic years. These academic years corresponded to each semester the CSI has been in use.

The purpose of the instrument is to provide cadets a tool to give fellow cadets a character grade represented by assessing sportsmanship and fair play demonstrated during competitive sport play. Each semester, upper-class cadets are given a leadership responsibility where one of their tasks is to randomly assign other cadets as coaches and players of intramural sports teams. New upper-class cadets are assigned to this position each semester. Before the start of each semester, those assigned as cadet coaches are given an overview and instruction of the CSI before using it by faculty members of DPE at USMA. The end of the intramural season coincides with the end of the academic semester. Each semester, new cadet coaches are assigned to complete a CSI administered by the Competitive Sports Office within DPE for each cadet player on their roster and submit it to the cadet officer of their “Regiment” for that sport. That cadet officer completes a CSI on the coaches and referees in their Regiments and electronically submits their results, along with the Player Character in Sport Index scores submitted by the coaches in their Regiments, to their respective sport educators (their chain of command within DPE) following the competitive season. The sport educators inspect the submitted CSI scores for any abnormalities or missing data before forwarding them to the Competitive Sports Office in the DPE where grades are inputted into USMA’s grade management system.
This instrument contains 13 items considered to be representative displays of character defined by sportsmanship and fair play. These items are categorized as follows:

- **Sportsmanship/Fair Play:** 1) Corrects teammates when needed, 2) Overly aggressive, angry, or has outbursts, 3) Argues with referee, team, or opponent.
- **Perseverance:** 4) Strives to improve, 5) Easily frustrated, 6) Performs well under adversity.
- **Teamwork/Unselfishness:** 7) Willing to play any role, 8) Overly critical of teammates, 9) Improves teammates’ performance.
- **Attitude/Coachability:** 10) Remains positive despite setbacks, 11) Accepts corrections from coach or team, 12) Blames mistakes on others.
- **Playing Ability:** 13) Demonstrates superior ability.

Using these items, cadet coaches rate cadet players, and cadet officers rate cadet coaches and cadet officials, according to observational traits of character displayed. These ratings are scored on a 5-point Likert scale. The options for coaches to choose from are: “Always”, “Often”, “Sometimes”, “Rarely”, and “Never” that will be converted to a 1 – 5 with (1) being “Always” and (5) being “Never”. Since there are both positive and negative trait questions, scores were reversed during data entry by the Competitive Sports Office where for a negative item an assessment score of 5 will be reversed and scored as a 1.

The highest possible combined overall score on the CSI is 75 and the lowest score is 33. A score of 75 means that according to the cadet coach grading the cadet player, the cadet player demonstrated an excellent level of sportsmanship. A score of 33 means that according to the cadet coach grading the cadet player, the cadet player demonstrated a poor level of sportsmanship. The instrument is scored by collecting the highest possible score between 33 and
75 points. The DPE submits the combined total score. The CSI showed to have “acceptable internal consistency where Cronbach’s $\alpha = 0.78$” (Schaefer et al., 2018, p. 18). This instrument has been used in a previous investigation (e.g., Schaefer et al., 2018).

**Predictor Variables**

Predictor variables that were investigated in this study pertain to the population and intramural sports that were available for participation. The following predictor variables were the center of this investigation: class, age, sport, and gender.

**Class**

Cadets were determined as being freshmen, sophomore, junior, or senior. A first-year student is a freshman and was assigned a “dummy code” of 1. A second-year student is a sophomore and was assigned a “dummy code” of 2. A third-year student is a junior and was assigned a “dummy code” of 3. A fourth-year student is a senior and was assigned a “dummy code” of 4, and a fifth-year student was considered a turned-back senior and was assigned a “dummy code” of 5.

**Age**

Cadets at USMA range in age from 17 to 27 years old. Age was determined by the student records and information that was provided by the institution.

**Type of Sport**

The USMA is a four-year academic military college where sports offered in the intramural style character in sport program during the 2017-2018 and 2018-2019 academic years included: basketball, flag football, functional fitness, soccer, submission grappling, floor hockey, swimming, team handball, combat grappling, and ultimate Frisbee. Basketball was assigned a “dummy code” of 0, flag football was assigned a “dummy code” of 1, functional fitness was
assigned a “dummy code” of 2, soccer was assigned a “dummy code” of 3, submission grappling was assigned a “dummy code” of 4, floor hockey was assigned a “dummy code” of 5, swimming was assigned a “dummy code” of 6, team handball was assigned a “dummy code” of 7, ultimate Frisbee was assigned a “dummy code” of 8, Flickerball was assigned a “dummy code” of 9, and combat grappling was assigned a “dummy code” of 10.

**Gender**

Gender was based on biological sex. Biological sex was determined by the student records and information that was provided by the institution. Males were assigned a “dummy code” of 0, and females a “dummy code” of 1.

**Procedures**

Before obtaining data for this study, formal permission from the United States Military Academy’s Institutional Review Board (IRB), as well as Liberty University’s Institutional Review Board (IRB), was requested and obtained through the official application process. Data were obtained for cadets attending USMA during each semester of the 2017-2018 and 2018-2019 academic years once the researcher received approval documents from both Liberty University (see Appendix C for Liberty University IRB approval) and USMA (see Appendix B for the approval of USMA IRB). The data request was made by submitting a formal data inquiry by following the written procedures to the Human Protections Director of the host institution as well as with Liberty University. This request was submitted with a requested turnaround time of two weeks per the policies of the institution.

Archival data were used for this study. The researcher made a formal request to the institution asking for all cadets who participated in intramural sport during the 2017-2018 and 2018-2019 academic years. The predictor variables, gender, class, age, and intramural sport, and
A series of multiple linear regressions were used to determine whether sportsmanship could be predicted by the CSI using the linear combination of class, age, type of sport, and gender among cadets at the USMA who participated in intramural sports attending the USMA during the 2017-2018 and 2018-2019 academic years. According to Rovai et al. (2013), a multiple linear regression predicts “the variance in a continuous dependent variable based on linear combinations of continuous independent variables” (p. 400). Predictive study intended to develop measures with enough predictive validity to be valuable in practical implementation (Gall et al., 2007). Furthermore, Rovai, et al. (2013) states, “the popularity of multiple regression stems from its versatility and the amount of information it yields about relationships among variables” (p. 353). Schaefer et al. (2019) similarly used linear regression models to determine how predictors were related to the dependent variable.
Assumptions had to be met before conducting the linear regression for each of the nulls. Once the data had been checked for bivariate outliers using scatter plots between the predictor variables and the criterion variables, the variables were measured to test the Assumption of Linearity and the Assumption of Multivariate Normal Distribution. The Assumption of Multicollinearity was checked using the Variance Inflation Factor (VIF) and accepted only if the values were between 1 and 5. If the VIF is greater than 10, the assumption has been violated.

The total count of 8,701 participants exceeded the suggested sample size. As stated in Rovai et al. (2013), according to Stevens (2002) regression analysis should include a minimum of 15 events for every predictor variable. The alpha level for this study was set at \( \alpha = .05 \).

According to Rovai et al. (2013), the coefficient of multiple correlations \( (R) \) as well as the adjusted coefficient of multiple determination \( (R^2) \), for regression analysis, were both appropriate effect size statistics and were used to report the strength of the relationship.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this quantitative study was to determine if the variables class, age, type of sport, and gender held predictive significance for the assessment scores of the Character in Sport Index pertaining to sportsmanship/fair play, perseverance, teamwork/unselfishness, attitude/coachability, and playing ability of cadets who attended a military institution of higher learning. The findings section includes the research question, null hypotheses, data screening, descriptive statistics, assumption testing, and results.

Research Question

RQ: Can sportsmanship be predicted by the Character in Sport Index using the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports?

Null Hypothesis

H₀₁: There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2017-2018 academic year.

H₀₂: There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2018-2019 academic year.
Data Screening

The researcher sorted the data and scanned for inconsistencies for each academic year. No data errors or inconsistencies were identified. A matrix scatter plot was used to detect bivariate outliers between predictor variables and the criterion variable for academic year 2018. No bivariate outliers were identified. See Figure 1 for the 2017-2018 academic year and Figure 2 for the 2018-2019 matrix scatter plots.

Figure 1

Scatter Plots for 2017-2018
Descriptive statistics were obtained on each of the variables for each academic year. The sample consisted of 8,701 participants and reported by academic years. Scores on the CSI range from 34 to 73. A high score of 75 is a perfect score on the exams and means that according to the cadet coach grading the cadet player, the cadet player demonstrated an excellent level of sportsmanship, whereas a low score of 33 means that according to the cadet coach grading that cadet player, the cadet player demonstrated a poor level of sportsmanship. Descriptive statistics can be found in Tables 1 through 8.
**Table 1**

*Mean Character in Sport Index Scores by Class 2017-2018*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>1054</td>
<td>60.26</td>
</tr>
<tr>
<td>Sophomore</td>
<td>1120</td>
<td>60.57</td>
</tr>
<tr>
<td>Junior</td>
<td>860</td>
<td>60.76</td>
</tr>
<tr>
<td>Senior</td>
<td>1147</td>
<td>60.60</td>
</tr>
<tr>
<td>Turn-Back</td>
<td>19</td>
<td>59.47</td>
</tr>
</tbody>
</table>

**Table 2**

*Mean Character in Sport Index Scores by Class 2018-2019*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>1077</td>
<td>60.30</td>
</tr>
<tr>
<td>Sophomore</td>
<td>1146</td>
<td>60.44</td>
</tr>
<tr>
<td>Junior</td>
<td>1064</td>
<td>61.67</td>
</tr>
<tr>
<td>Senior</td>
<td>1200</td>
<td>60.80</td>
</tr>
<tr>
<td>Turn-Back</td>
<td>14</td>
<td>61.64</td>
</tr>
</tbody>
</table>
### Table 3

*Mean Character in Sport Index Scores by Age 2017-2018*

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>24</td>
<td>59.63</td>
</tr>
<tr>
<td>18</td>
<td>572</td>
<td>60.17</td>
</tr>
<tr>
<td>19</td>
<td>895</td>
<td>60.28</td>
</tr>
<tr>
<td>20</td>
<td>926</td>
<td>61.04</td>
</tr>
<tr>
<td>21</td>
<td>967</td>
<td>60.81</td>
</tr>
<tr>
<td>22</td>
<td>510</td>
<td>60.57</td>
</tr>
<tr>
<td>23</td>
<td>182</td>
<td>59.78</td>
</tr>
<tr>
<td>24</td>
<td>75</td>
<td>59.32</td>
</tr>
<tr>
<td>25</td>
<td>34</td>
<td>59.88</td>
</tr>
<tr>
<td>26</td>
<td>13</td>
<td>59.62</td>
</tr>
<tr>
<td>27</td>
<td>2</td>
<td>64.50</td>
</tr>
</tbody>
</table>

### Table 4

*Mean Character in Sport Index Scores by Age 2018-2019*

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>23</td>
<td>60.83</td>
</tr>
<tr>
<td>18</td>
<td>556</td>
<td>60.55</td>
</tr>
<tr>
<td>19</td>
<td>969</td>
<td>60.18</td>
</tr>
<tr>
<td>20</td>
<td>1011</td>
<td>61.17</td>
</tr>
<tr>
<td>21</td>
<td>1066</td>
<td>61.21</td>
</tr>
<tr>
<td>22</td>
<td>563</td>
<td>60.92</td>
</tr>
<tr>
<td>23</td>
<td>183</td>
<td>60.53</td>
</tr>
<tr>
<td>24</td>
<td>72</td>
<td>60.31</td>
</tr>
<tr>
<td>25</td>
<td>42</td>
<td>60.69</td>
</tr>
<tr>
<td>26</td>
<td>15</td>
<td>56.73</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>54.00</td>
</tr>
</tbody>
</table>
### Table 5

*Mean Character in Sport Scores by Sport 2017-2018*

<table>
<thead>
<tr>
<th>Sport</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soccer</td>
<td>433</td>
<td>59.09</td>
</tr>
<tr>
<td>Basketball</td>
<td>399</td>
<td>59.14</td>
</tr>
<tr>
<td>Ultimate Frisbee</td>
<td>413</td>
<td>59.79</td>
</tr>
<tr>
<td>Flag Football</td>
<td>472</td>
<td>60.24</td>
</tr>
<tr>
<td>Functional Fitness</td>
<td>355</td>
<td>60.32</td>
</tr>
<tr>
<td>Floor Hockey</td>
<td>420</td>
<td>60.45</td>
</tr>
<tr>
<td>Flickerball</td>
<td>451</td>
<td>60.70</td>
</tr>
<tr>
<td>Team Handball</td>
<td>479</td>
<td>60.98</td>
</tr>
<tr>
<td>Submission Grappling</td>
<td>337</td>
<td>61.38</td>
</tr>
<tr>
<td>Swimming</td>
<td>441</td>
<td>62.85</td>
</tr>
</tbody>
</table>

### Table 6

*Mean Character in Sport Index Scores by Sport 2018-2019*

<table>
<thead>
<tr>
<th>Sport</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultimate Frisbee</td>
<td>416</td>
<td>59.24</td>
</tr>
<tr>
<td>Team Handball</td>
<td>476</td>
<td>59.96</td>
</tr>
<tr>
<td>Basketball</td>
<td>397</td>
<td>60.39</td>
</tr>
<tr>
<td>Floor Hockey</td>
<td>455</td>
<td>60.57</td>
</tr>
<tr>
<td>Soccer</td>
<td>395</td>
<td>60.57</td>
</tr>
<tr>
<td>Flickerball</td>
<td>455</td>
<td>60.95</td>
</tr>
<tr>
<td>Functional Fitness</td>
<td>367</td>
<td>61.02</td>
</tr>
<tr>
<td>Flag Football</td>
<td>477</td>
<td>61.17</td>
</tr>
<tr>
<td>Swimming</td>
<td>476</td>
<td>61.20</td>
</tr>
<tr>
<td>Combat Grappling</td>
<td>269</td>
<td>61.98</td>
</tr>
<tr>
<td>Submission Grappling</td>
<td>318</td>
<td>62.52</td>
</tr>
</tbody>
</table>
### Table 7

*Mean Character in Sport Index Scores by Gender 2017-2018*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3524</td>
<td>60.67</td>
</tr>
<tr>
<td>Female</td>
<td>676</td>
<td>59.84</td>
</tr>
</tbody>
</table>

### Table 8

*Mean Character in Sport Index Scores by Gender 2018-2019*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Average Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3731</td>
<td>61.04</td>
</tr>
<tr>
<td>Female</td>
<td>770</td>
<td>59.61</td>
</tr>
</tbody>
</table>

### Assumption Testing

#### Null Hypothesis One Assumption Testing

Null Hypothesis One stated, “There is no predictive relationship between sportsmanship as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participated in intramural sports during the 2017-2018 academic year.”

Assumptions for the Null Hypothesis consisted of the following test. The multiple regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 1 for the matrix scatter plot for the 2017-2018 academic year and Figure 2 for the scatter plot for 2018-2019 academic year. The multiple regression requires that the assumption of multivariate normal distribution be met. The assumption of multivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 1 for the matrix scatter plot for
The 2017-2018 academic year. The Variance Inflation Factor (VIF) test was conducted to ensure the absence of multicollinearity. This test was run to ensure that predictor variable (x) was not highly correlated with another predictor variable (x), they essentially provide the same information about the criterion variable. If the VIF is too high (greater than 10), then multicollinearity is present. Acceptable values are between 1 and 5. The absence of multicollinearity was met between the variables in this study. See Table 9 collinearity statistics for 2017-2018 academic year.

**Table 9**

 COLLINEARITY STATISTICS 2017-2018  

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company Athletic Sport</td>
<td>.977</td>
<td>1.024</td>
</tr>
<tr>
<td></td>
<td>Age Sport Played</td>
<td>.470</td>
<td>2.126</td>
</tr>
<tr>
<td></td>
<td>Gender of Subject</td>
<td>.990</td>
<td>1.010</td>
</tr>
<tr>
<td></td>
<td>Class Year Subject Played</td>
<td>.479</td>
<td>2.087</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI Score

**Null Hypothesis Two Assumption Testing**

Null Hypothesis wo stated, “There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participated in intramural sports during the 2018-2019 academic year.”

Assumptions for the Null Hypothesis consisted of the following test. The multiple regression requires that the assumption of linearity be met. Linearity was examined using a scatter plot. The assumption of linearity was met. See Figure 1 for the matrix scatter plot. The
multiple regression requires that the assumption of multivariate normal distribution be met. The assumption of bivariate normal distribution was examined using a scatter plot. The assumption of bivariate normal distribution was met. See Figure 1 for the matrix scatter plot. The VIF test was conducted to ensure the absence of multicollinearity. This test was run to ensure that the predictor variable (x) was not highly correlated with another predictor variable (x); they essentially provide the same information about the criterion variable. If the VIF is too high (greater than 10), then multicollinearity is present. Acceptable values are between 1 and 5. The absence of multicollinearity was met between the variables in this study. See Table 10 for collinearity statistics.

**Table 10**

*Collinearity Statistics 2018-2019*

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1 Company Athletic Sport</td>
<td>.969</td>
<td>1.032</td>
</tr>
<tr>
<td>Age Sport Played</td>
<td>.443</td>
<td>2.258</td>
</tr>
<tr>
<td>Gender of Subject</td>
<td>.984</td>
<td>1.016</td>
</tr>
<tr>
<td>Class Year Subject Played</td>
<td>.451</td>
<td>2.216</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI score

**Results**

A series of multiple regressions was conducted to see if there was a relationship between CSI scores and class, age, type of sport, and gender among cadets at the USMA who participate in intramural sports during the 2017-2018 and 2018-2019 academic years.

**Null Hypothesis One Results**
Null Hypothesis One stated, “There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2017-18 academic year.” The researcher rejected the null hypothesis at the 95% confidence level where $F(4, 4195) = 10.24, p < .001$. There was a statistical relationship between the predictor variables (exam scores) and the criterion variables. See Table 11 for regression model results.

**Table 11**

*Regression Model Results 2017-2018*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>1188.014</td>
<td>4</td>
<td>297.003</td>
<td>10.241</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>121666.841</td>
<td>4195</td>
<td>29.003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>122854.855</td>
<td>4199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI Score
b. Predictors: (Constant), Class Year Subject Played, Company Athletic Sport, Gender of Subject, Age Sport Played

The model’s effect size (multiple correlation coefficient) for the 2017-2018 academic year was extremely small where $R = 0.098$. Furthermore, $R^2 = 0.010$ indicating that approximately 1.0% of the variance of criterion variable could be explained by the linear combination of predictor variables. See Table 12 for model summary and Table 13 for the coefficients.
Table 12

Model Effect Size 2017-2018

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.098a</td>
<td>.010</td>
<td>.009</td>
<td>5.385</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Class Year Subject Played, Company Athletic Sport, Gender of Subject, Age Sport Played

Table 13

Coefficients 2017-2018

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>62.986</td>
<td>1.372</td>
</tr>
<tr>
<td>Company Athletic Sport</td>
<td>.139</td>
<td>.029</td>
</tr>
<tr>
<td>Age Sport Played</td>
<td>-.180</td>
<td>.077</td>
</tr>
<tr>
<td>Gender of Subject</td>
<td>-.860</td>
<td>.227</td>
</tr>
<tr>
<td>Class Year Subject Played</td>
<td>.271</td>
<td>.104</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI score

Null Hypothesis Two Results

Null Hypothesis Two stated, “There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2018-19 academic year.” The researcher rejected the null hypothesis at the 95% confidence level where $F(4,4496) = 15.54$, $p < .001$. There was a statistical relationship between the predictor variables (exam scores) and the criterion variables. See Table 14 for regression model results.
Table 14

Regression Model Results 2018-2019

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>1990.200</td>
<td>4</td>
<td>497.550</td>
<td>15.536</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>143984.414</td>
<td>4496</td>
<td>32.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>145974.614</td>
<td>4500</td>
<td>32.025</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI score
b. Predictors: (Constant), Class Year Subject Played, Company Athletic Sport, Gender of Subject, Age Sport Played

The model’s effect size (multiple correlation coefficient) was also extremely small where $R = 0.117$. Additionally, $R^2 = 0.014$ indicating that approximately 1.4% of the variance of criterion variable could be explained by the linear combination of predictor variables. See Table 15 for model summary and Table 16 for Coefficients.

Table 15

Model Effect Size 2018-2019

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.117a</td>
<td>.014</td>
<td>.013</td>
<td>5.659</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Class Year Subject Played, Company Athletic Sport, Gender of Subject, Age Sport Played
Table 16

Coefficients 2018-2019

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>64.294</td>
<td>1.448</td>
<td>44.401</td>
<td>.000</td>
</tr>
<tr>
<td>Company Athletic Sport</td>
<td>-.015</td>
<td>.028</td>
<td>-.008</td>
<td>-.556</td>
</tr>
<tr>
<td>Age Sport Played</td>
<td>-.218</td>
<td>.082</td>
<td>-.059</td>
<td>-2.664</td>
</tr>
<tr>
<td>Gender of Subject</td>
<td>-1.517</td>
<td>.226</td>
<td>-.100</td>
<td>-6.718</td>
</tr>
<tr>
<td>Class Year Subject Played</td>
<td>.491</td>
<td>.111</td>
<td>.098</td>
<td>4.426</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total CSI score
CHAPTER FIVE: CONCLUSIONS

Overview

The following content will highlight the results of the multiple linear regression by discussing the research findings. Implications of the study include how the results add to the existing literature about assessing character in sports. Furthermore, limitations of the study and recommendations for further research about character in sport and its facets will be addressed.

Discussion

The purpose of this quantitative study was to determine if the variables class, age, type of sport, and gender held predictive significance for the assessment scores of the CSI pertaining to sportsmanship/fair play, perseverance, teamwork/unselfishness, attitude/coachability, and playing ability, of cadets who attended a military institution of higher learning. The relevance of the study was constructed from the premise that CSI scores and potential predictive variables class, age, gender, and type of sport, may play a role in cadet development both ethically and militarily.

The study used a correlational design to determine how the linear combination of the predictor variables class, age, type of sport, and gender were related to the dependent variable CSI scores at the USMA (Rovai et al., 2013; Gall et al., 2007). The independent variables were class, age, type of sport, and gender of each subject. For the purpose of this study, class was defined as the academic year of the participant. Age was determined by the individual chronological age of the participants in years as determined by their school records. The type of sport played was determined by the intramural sports that were offered at the institution from 2017-2019. Gender was reported as the biological sex of the participant.

The dependent variable was the student’s CSI score. The null hypotheses for this study
were:

**H₀₁:** There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2017-2018 academic year.

**H₀₂:** There is no predictive relationship between sportsmanship, as measured by the Character in Sport Index, and the linear combination of class, age, type of sport, and gender among cadets at the United States Military Academy who participate in intramural sports during the 2018-2019 academic year.

Archival data in the form of an Excel spreadsheet, containing cadets’ scores, were provided to the researcher by the Office of Institutional Research at the USMA. Extreme outliers were removed from the data set, resulting in a final sample of 8,701 cadets. For the 2017-2018 academic year, data from 4,200 cadets were provided. For the 2018-2019 academic year, data from 45,01 cadets were provided. The archival data were then analyzed through IBM’s SPSS software using a multiple linear regression. A multiple linear regression was an appropriate approach since this study looked at the predictive relationship between a dependent variable (Character in Sport Index scores) and two or more independent variables, in this case, class, age, type of sport, and gender (Rovai et al., 2013).

Upon conducting a multiple linear regression to test the first null hypothesis, the resulting data revealed that there was a statistically significant predictive relationship between the CSI scores, class, age, type of sport, and gender; therefore, the researcher rejected the null hypothesis at the 95% confidence level for the 2017-2018 academic year where $F(4, 4195) = 10.24, p < .001$. The resulting data also revealed that there was a statistically significant predictive
relationship between the CSI scores, class, age, type of sport, and gender, so the researcher rejected the second null hypothesis for the 2018-2019 academic year at the 95% confidence level where $F(4, 4496) = 15.54$, $p < .001$. However, both results produced an extremely small effect size. This contradicts preceding research that indicates that an individual’s culture or surroundings have a “considerable effect” on their values, beliefs, and conduct (Schwamberger et al., 2018, p. 550).

According to Rovai et al. (2013), $R^2$ is an appropriate effect size statistic for regression analysis and can be interpreted as small effect = 0.0196, medium effect = 0.1300, and large effect = 0.2600. The large sample size in this study produced statistical significance even having slight difference in means. Although there was found to be statistical significance overall, the effect size for this research shows little practical usefulness of the relationship concerning these independent variables. Therefore, it was determined with 95% certainty that class, age, type of sport, and gender have a weak relationship when predicting the CSI score.

Bandura (1977) established that learning can take place in social settings through observation in conjunction with reflection (Horsburgh & Ippolito, 2018) to influence related behavior (Eby et al., 2015). Bandura’s social learning theory included four stages: (1) observe behavior, (2) remember the behavior, (3) imitate the behavior, and (4) an internal commitment to want to consistently behave similarly. This study investigated the predictive relationship class had on CSI scores. The data in this study found that overall CSI scores for senior class (2017-2018 $M = 60.60$, 2018-2019 $M = 60.80$) and junior class (2017-2018 $M = 60.76$, 2018-2019 $M = 61.67$) cadets were only slightly higher than freshman cadets (2017-2018 $M = 60.26$, 2018-2019 $M = 60.30$). Resulting scores point toward cadets correcting decisions, behaviors, and attitudes leading to marginally higher, average total CSI scores. Social learning...
theory as well suggests that people and the culture, in this case cadets and their Company, have a small effect, via influence and modeling, on values and ensuing behaviors (Schwamberger et al., 2018). See Table 11 for the 2017-2018 academic year and Table 13 for the 2018-2019 academic year.

Similarly, this study examined sportsmanship and its close relationship to moral maturity, and this study looked at the predictive impact of age on CSI scores. In this investigation, 17-year-old cadets achieved slightly lower mean scores on the CSI (2017-2018 \( M = 59.63 \), 2018-2019 \( M = 60.83 \)) compared to 20-year-old cadets (2017-2018 \( M = 61.04 \), 2018-2019 \( M = 61.17 \)), 21-year old cadets (2017-2018 \( M = 60.81 \), 2018-2019 \( M = 61.21 \)), and 22-year old cadets (2017-2018 \( M = 60.57 \), 2018-2019 \( M = 60.92 \)). Shields and Bredemier (as cited in Schwamberger et al., 2018) explained Kohlberg’s (1977) structural development theory expressing three levels of moral development and maturity concerning sports. These three levels are (1) pre-conventional, (2) conventional, and (3) post-conventional. At the pre-conventional stage, an individual’s actions or behaviors are based on how that behavior benefits them. In this case, a good CIS score improves a cadet’s overall physical grade, a good score also translates to being a good teammate which will result in others wanting to play with them more, and these outcomes relate well to the metagame, or real-life experience. At the conventional level, behaviors are shaped by societal values of the community that the individual is a member of. For this population, that community can be defined as the Army, the Corps of Cadets, and even their Company. The post-conventional level is where the individual, while considering those community values, ultimately determines for themselves what they determine right values or behaviors are according to their understanding of what is morally right. Subjects in this investigation were assessed according to how they adhered to their own community values as they competed under constantly changing...
conditions. Regression results determined that there was a statistically significant predictive relationship between age and CSI scores \( (p = 0.02 \text{ for 2017-2018 and } p = 0.008 \text{ for 2018-2019}) \). These results mostly demonstrate the maturity of behaviors exhibited as age increased, even though variability between scores and age was relatively small. See Table 10 for 2017-2018 and Table 15 for 2018-2019.

The small variability between scores, accompanied by the small effect size experienced in this study, may also be evidence a ceiling effect. Ceiling effects “occur when a scale does not have a sufficient range to produce meaningful variability at the upper ends of possible scores” (Keeley et al., 2013, p. 442). According to Koedel and Betts (2010), increase in scores may be smaller if the initial scores are already “toward the top end of the distribution” (p. 55). If the population is at or close to the height of possible scores, programs will have less opportunity to see a tendency toward increasing scores as a result. The USMA employs a degree of character review of a cadet candidate prior to acceptance as part of the admissions process. Therefore, a ceiling effect should be considered in the explanation of the small effect size experienced.

The findings of this study supported Strand et al.’s (2018) finding that there is a statistically significant indication of gamesmanship by sport type. Submission Grappling in the 2017-2018 academic year \( (M = 61.38) \) and the 2018-2019 academic year \( (M = 62.52) \), and Combat Grappling in the 2018-2019 academic year \( (M = 61.98) \) both scored the highest mean CSI scores compared to other sports offered. Swimming \( (2017-2018 M = 62.85, 2018-2019 M = 61.20) \) was the only other sport consistently achieving a mean CSI score over \( M = 61.00 \). All other sports scored between \( M = 59.09 \) and \( M = 60.98 \) in random order by academic year. Research shows that contact sports increase the potential to disregard the rules (Sciarabba, 2012). Although the effect size was small, the results of this investigation appear to support results
found in related research which indicate that the type of sport played ($p = .000$ for 2017-2018 and $p = 0.58$ for 2018-2019) provided enough evidence to reject the null hypothesis indicating that there is a statistically significant predictive relationship between CSI scores and type of sport played. See Table 8 for the 2017-2018 academic year and Table 14 for the 2018-2019 academic year.

Sosik et al. (2018) reported attributes related to character can differ for men and women. The findings of this investigation supported the research. Males (2017-2018 $M = 60.87$, 2018-2019 $M = 61.04$) scored slightly higher than females (2017-2018 $M = 59.84$, 2018-2019 $M = 59.61$) on mean CSI scores. Meyer-Parlapanis et al., (2017) found that gender roles may also affect sports performance determining female athletes were more likely to find a particular action as unacceptable than males. Research has also shown that there are significant differences by gender when establishing what fair play is (Schaefer et al., 2018). However, it has been found that female athletes develop the same behaviorally from a competitive sports standpoint, as male athletes (Meyer-Parlapanis et al., 2017). Results of this investigation appear to support results found in related research indicating that there is a statistically significant predictive relationship between CSI scores and gender ($p < .001$ for 2017-2018 and $p < .001$ for 2018-2019) and provided enough evidence to reject the null hypothesis. However, the effect size for this independent variable was small. See Table 9 for the 2017-2018 academic year and Table 12 for the 2018-2019 academic year.

**Implications**

The study looked at the predictive relationship between sportsmanship and the linear combination of class, age, type of sport, and gender possesses important implications regarding predictive combination by one or more of those variables. Although the linear combination of
class, age, type of sport, and gender proved to have a statistically significant predictive relationship on CSI scores, it did not show to have great practical significance. The results measured by the multiple linear correlation coefficient from a practical standpoint proved to have a small variability in total scores ($R^2 = 0.010$ for 2017-2018 and $R^2 = 0.014$ for 2018-2019) indicating the scores on the CSI are statistically significant predictors due to the overall sample size but may not be clinically meaningful as further identified by the average scores based on each of the criterion variables.

Therefore, it is with 95% or greater statistical significance that there is a weak relationship between class, age, type of sport, and gender as predictive variables of CSI scores. Service academies and military institutions of higher learning wanting to consider a sports education model utilizing this instrument in order to provide feedback that can assess character in sports would be evaluating a population that has a small threshold for improvement based on institutional entrance criteria.

**Limitations**

Five limitations may have contributed to the results of this study. First, the research-collected measure of Character in Sport total scores was only available at the end of each academic semester. Therefore, conclusions as to the sports education program’s influence on improvement over time during a semester cannot be determined. Second, concerning study design, data was inclusive of all participants during the four competitive seasons utilized. This study did not look at only individuals who played all four of those competitive seasons to study developmental improvements. Third, continuing with the fidelity of subjects, since this study did not look at only subjects who participated every semester both years, some subjects had fewer exposures to assessment (i.e., played a corps squad sport the previous season, did not play
previously due to injury, etc.) possibly preventing the researcher from ascertaining any outcomes relating to participation in and exposure to the program on total scores on the CSI as predicted by the linear combination of class, age, type of sport, and gender with confidence. Fourth, the findings of this study may be experienced by similar institutions (i.e., service academies) employing a sports education program, that being the linear combination of class, age, type of sport, and gender having little to no effect in relationship to CSI scores since admissions criteria already specializes in providing a data population that has been somewhat profiled. Finally, a ceiling effect may be experienced at similar institutions that employ a character background component to their admissions process of student candidates. These criteria may not provide sufficient variability when tracking development since candidates may already display a high degree of character and have little room for improvement as a result of curriculum or program influence.

**Recommendations for Further Study**

In discussion regarding the conclusions, implications, and limitations of this research, the following are recommendations for further study in order to add to the literature on the topic of developing character in sport and its relationship to students attending military institutions of higher learning:

1. Future research should seek to identify longitudinal comparisons across the same subject scores. This study utilized available data from all eligible participants regardless of their overall adherence to the Company Athletics program. Therefore, some participants contributed scores for as low as one season where others contributed scores for as many as eight seasons. Further research into the effectiveness of the Company Athletics program in the area of character development
as assessed by the Character in Sport Index would benefit from a longitudinal study comparing scores of cadets that enter the program their freshman year and record Character in Sport Index scores for each season throughout their attendance at the United States Military Academy. This would set a context to support character improvements through participation in a directed sports education program.

2. Future research should also consider implementing sport educator evaluations of cadet (or student) coaches to assess improved trends in motivation and development, as well as how they correspond to overall Character in Sport Index scores. Determining what cadet coaches retained from discussions and reflections guided by the sport educators would be useful to other institutions since Ettekal et al. (2018) found that character education should look to discuss teachable moments and themes.

3. Expand future studies to include evaluation of the sport educators, as well as the delivery of the competitive program, by the cadet (or student) coaches and players in comparison to Character in Sport Index scores. Sports education may provide significant value to an institution if its effectiveness of the relationships between sports educators and cadet coaches and players proves to offer successful strategies that can be duplicated and utilized. While this study measured the predictive relationship between the linear combination of class, age, type of sport, and gender and total Character in Sport Index scores, further study explaining how the relationship fostered by the sports educator with Regimental cadets in charge of each sport, along with cadet coaches and players, may further impact development and would be useful to this and other institutions in terms of developing character of future officers. Results of Askoy and Gursel (2018) stated sports programs focusing
on strengthening social values have the potential to positively influence feelings and attitudes related to sportsmanship and self-control.

4. Expand the study to include the degree of competitive pressure and physiological arousal with Character in Sport Index scores. Investigating physiological response to challenges and tasks may prove to enhance the development of future Army officers. Naylor and Yeager (2013) state that the competitive pressures and physiological stimulation of competitive sports provide occasions for learning, practicing, executing moral decision making. Sookermany (2017) stated that the responsibility of military education is one of developing judgment to enhance problem-solving for future unpredictable conditions graduated officers will face at any given time.

5. Investigate how accurately each of the criterion variables of class, age, type of sport, and gender predicted relationship between sportsmanship, as measured by the Character in Sport Index. In this study, the linear combination of class, age, type of sport, and gender did have a statistically significant predictive relationship of sportsmanship when measured using the Character in Sport Index ($p = 0.020$ for 2017-2018 and $p = 0.008$ for 2018-2019); however, it warrants further investigation to identify which is the most accurate predictor.

6. Research the differences in Character in Sport Index scores between other military based educational systems of higher learning. Berghaus (2016) identified that character development takes place during continuous interactions between the same individuals in the same culture, community, and organizations they are part of. To function within that culture, individuals must be aware of and respect the societal or cultural values of that community. Therefore, considering cross-cultural military
organizations may further explain implications or limitations in military institutional higher education settings.

7. Consider a similar study investigating the predictive relationship of class, age, type of sport, and gender on Character in Sport Index scores at non-military institutions. In this study, the linear combination of class, age, type of sport, and gender had a statistically significant predictive relationship of sportsmanship when measured using the Character in Sport Index ($p = 0.020$ for 2017-2018 and $p = 0.008$ for 2018-2019); however, the effect size showed that relationship to be weak. Consideration could be given if the same were true at institutions with less of a profiled population of subjects.
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APPENDIX A

Character in Sport Index (CSI)

<table>
<thead>
<tr>
<th>Position</th>
<th>Demonstrates leadership</th>
<th>Aggressive/angry or fearful</th>
<th>Argues with referee, influential</th>
<th>Behavior improves</th>
<th>Easily frustrated</th>
<th>Performs well under pressure</th>
<th>Willing to improve</th>
<th>Coaches critical of performance</th>
<th>Makes team better</th>
<th>Overcomes obstacles from coach, team</th>
<th>Shows initiative</th>
<th>Demonstrates superior ability</th>
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These are the full items:

- Demonstrates leadership for not adhering to rules or displaying poor conduct
- Argues with referee, influential or too influential
- Argues with referee, influential or too influential
- Behavior improves, shows consistent effort

United States Military Academy. (2019). USCC Circular (Cir) 28-1 Company Athletics (CA)

Standard Operating Procedures (SOP). Department of Physical Education.
APPENDIX B

Karen Y. Peck, MEd, ATC, CCRP
Human Protections Director
United States Military Academy

22MAY2020

After a careful review of your protocol, “Investigating the predictive relationship between sportsmanship and class, age, type of sport and gender at the United States Military Academy,” I have determined that this is human subjects research according to 32CFR219 and meets the requirements of exempt status under 32CFR219.104(d)(4)(ii) because this is research involving secondary analysis of data from the Office of Institutional Research (OIR). The approved variables to be used are (from all cadets in company athletics during academic years 2016-17, 2017-18, and 2018-19) gender, age, year class, sport, race, position (player, coach, official), and CSI total score.

The data will be recorded by OIR and provided to the investigator without identifiers. The identity of the subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator cannot contact the subjects, and the investigator will not re-identify subjects.

Confidentiality will be maintained by using a de-identified data set and using standard electronic data security measures.
APPENDIX C

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

May 27, 2020

Daniel Furlong
Ellen Black

Re: IRB Exemption - IRB-FY19-20-381 INVESTIGATING THE PREDICTIVE RELATIONSHIP BETWEEN SPORTSMANSHIP AND CLASS, AGE, TYPE OF SPORT, AND GENDER AT THE UNITED STATES MILITARY ACADEMY

Dear Daniel Furlong, Ellen Black:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46: 101(b):

Category 4. Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:

(i) The identifiable private information or identifiable biospecimens are publicly available;

(ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;

(iii) The research involves only information collection and analysis involving the investigator’s use of identifiable health information when that use is regulated under 45 CFR parts 160 and 164, subparts A and E, for the purposes of “health care operations” or “research” as those terms are defined at 45 CFR 164.501 or for “public health activities and purposes” as described under 45 CFR 164.512(b); or

(iv) The research is conducted by, or on behalf of, a Federal department or agency using government-generated or government-collected information obtained for nonresearch activities, if the research generates identifiable private information that is or will be maintained on information technology that is subject to and in compliance with section 208(b) of the E-Government Act of 2002, 44 U.S.C. 3501 note, if all of the identifiable private information collected, used, or generated as part of the activity will be maintained in systems of records.
subject to the Privacy Act of 1974, 5 U.S.C. 552a, and, if applicable, the information used in the research was collected subject to the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office