

SELF-CONFIDENCE AND SUCCESSFUL INTERSCHOLASTIC ATHLETIC COACHING
AT THE HIGH SCHOOL LEVEL

TONY BERRY

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The undersigned, approved by the Department Chair of Graduate Studies in Education, have examined a dissertation entitled:

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Presented by Tony Berry a candidate for the degree of Doctor of Education and hereby certify that in their opinion it is worthy of acceptance.

Dr. Robert Perry, Advisor/Chair

Professor Emeritus Graduate Studies in Education

Dr. Michael Arnold, Committee Member

Professor Graduate Studies in Education

Dr. Brent Depee', Committee Member

School of the Osage Superintendent

SELF-CONFIDENCE AND SUCCESSFUL INTERSCHOLASTIC ATHLETIC COACHING
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Tony Berry-B.S., M.S., Ed.Spec.

Dr. Robert Perry, Dissertation Advisor

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Abstract

The researcher sought to increase understanding into one characteristic of successful leadership of interscholastic high school coaches in Missouri. Generally coaches are trained in a similar methodology as to the construct of teaching, but consistently, there are outliers in the field of coaching that surpass other coaches in success as measured by wins and losses. The premise of the researcher was self-confidence of the head coach has a causal effect on a sports team's ability to win championships, primarily state championships as defined by the Missouri State High School Activities Association (MSHSAA).

A holistic view of the self-confidence of coaches in Missouri public schools who have won multiple state championships was sought by inclusion of all multiple championship winning coaches regardless of age, gender, or sport. The criteria for inclusion in the two groups studied and classified was by having won two or more state championships or by not having won two or more state championships.

The researcher requested an email list of member schools from MSHSAA. From this list an email was sent to all public school athletic directors, asking them to have their head coaches complete and submit the questionnaire. From this email, 289 participants completed the questionnaire. The instrument used for this study was the Coaching Efficacy Scale developed by Feltz (1999). This instrument was a twenty-four question survey measuring the confidence coaches have while leading their teams. The questionnaire asked questions involving four categories of confidence. The coach's ability to motivate the players, teach technique, use of strategy, and building character.

The statistical analysis applied to the groups included a MANOVA for the four groups of questions and a t-test for each question. The researcher noted significant differences in three categories for each group, and for twenty of the twenty-four questions. The categories that

revealed a significant difference were in the areas of confidence, technique and strategy.

Confidence in the ability to build character did not show a significant difference between the two groups.

CHAPTER ONE

INTRODUCTION

Many factors are involved with successful leadership within athletic coaching. These factors may range from the style of leadership, including how well coaches game plan and motivate the players, to the actual skill level of the players they coach. Though many of these factors can vary from year to year, and may even be outside a coach's realm of control, some coaches still manage to establish a tradition of a winning program. The researcher intended to investigate if a coach's self-confidence, defined specifically in relation to Albert Bandura's (1977) theory of self-efficacy, may be a factor in the overall success of his or her team and program.

The researcher's study may be helpful to administrators as they build a capable and effective faculty through the hiring process. Most if not all school administrators agree an important factor in creating positive change in a school is the quality of the teacher in the classroom (Cohen, 2009); the same may be true on the fields and courts of play. The researcher addressed one factor of a quality hiring practice for athletic coaches and teachers by attempting to determine if self-confidence measures are a causal factor in personal success and therefore an appropriate attribute to consider as part of the interview process.

The most effective coaches, and subsequently those most sought after in the hiring process, are interested in knowing the methods used to build, maintain, or regain confidence among players. Perhaps more importantly, these coaches seem to understand that confidence in their own abilities to coach is important and can have a powerful effect on athletes (Fletz, Short & Sullivan, 2008). Thus the researcher investigated if confidence may be a factor assimilated by followers from the leader. In one attempt, Vealey (1998) used the term sports confidence and

defines it as the degree of certainty an individual possesses about his or her ability to be successful in a sport. For the purposes of the investigation, the researcher employed the scientifically and psychologically defined term of self-efficacy. Albert Bandura's theory of self-efficacy, first formulated in 1977, is understood through the lens and context of social cognitive theory and refers to beliefs in one's ability to organize and execute a course of action. In later works, Bandura stated, "Efficacy beliefs influence how people feel, think, motivate themselves, and behave" (Bandura, 1993 p.118). Feltz, Short, and Sullivan (1988) applied Bandura's theory to sports and determined self-efficacy to be an influential psychological construct in athletic achievement. From this research Feltz, Chase, Moritz, and Sullivan (1999) created the Coaching Efficacy Scale to measure aspects of coaching confidence.

Informed by the work of Bandura (1977, 1993), and Feltz (1988, 1999), the researcher evaluated the self-efficacy/confidence of coaches who have won at least two athletic state championships in the athletic sport they coach. The researcher conducted a causal comparative study. The dependent variables were an individual's confidence level of their abilities in the areas of game strategy, player motivation, teaching of technique and character development. The independent variables are the winning of multiple state championships and those not having won multiple state championships. The researcher administered the self-efficacy test to coaches in Missouri who had and had not won multiple athletic state championships. Results were analyzed comparing the responses of multiple winning coaches and non-multiple winning coaches. The researcher calculated a MANOVA for the four categories compared and individual *t*-test for each question for increased clarity in specific questions for possible differences between responses of coaches who have won multiple athletic state championships and coaches who have not won multiple athletic state championships.

The researcher attempted to determine if self-efficacy/confidence is a causal factor in the overall success of a coach as measured by his or her team's success. Based on the data collected the researcher in Chapter Four presents data to allow conclusions to be drawn on the ability of school leaders to use the evaluation of self-efficacy/confidence as a factor in the hiring process. The researcher based the study on the following problem statement.

Problem Statement

Administrators considering the employment of athletic coaches, often via the extension of teachers' contracts, may not consider an individual's self-confidence, and self-efficacy as an indicator of future success, thereby ignoring a possibly important factor in a person's success, particularly on the athletic field/court. The researcher contends educational leaders, including athletic coaches, generally began their careers with similar academic preparation, but some became more successful in the practice of their craft. A contributing factor in this success may be a higher confidence level in their ability and if confidence is a factor in the success of educators then the employment of educators, specifically for this study coaches, should include some measurement of an individual's confidence level.

The researcher, through a quantitative study of interscholastic high school athletic coaches, sought to add additional knowledge to this employment factor. The researcher provided surveys to all public school athletic coaches in the state of Missouri. The survey was designed to obtain information concerning the level of confidence of each coach.

Theoretical Framework

The premise of this research was to gain knowledge concerning why some athletic coaches have the ability to lead their athletic programs to higher rates of success than that of their peers. The researcher presented the idea that a coach's self-efficacy/confidence could be

one reason for the greater amount of athletic coaching success. Successful athletic programs are directed by successful leaders. Leadership and the theories associated with it were investigated. The review of leadership theories directed the researcher to the trait theory of leadership. Trait theory gained relevance for this study because of the idea that the trait of self-confidence may be causal to the success of a coach.

As traits became a focus of the study, another review of literature involving personalities evolved. The review of personality traits was focused on the Five Factor Model and its ability to possibly predict the emergence and effectiveness of leaders. Judge, Bono, Ilies and Gerhardt (2002) were leading researchers who have studied personality traits. They stated, "...we have relatively poor idea of not only which traits are relevant, but why" (Judge et al., 2002, p. 774). The current study was initiated to add evidence for the trait of self-confidence as a relevant trait needed for successful athletic coaching.

When working in the realm of self-confidence, the psychological construct being researched is termed self-efficacy. The foundations of efficacy were developed by Bandura in his Self-Efficacy Theory. Bandura (1977) theorized behavioral changes were made through the treatment of individuals by the method of influencing their self-efficacy. Bandura (1977) stated, "An efficacy expectation is the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 193). Bandura (1977) went further in his theory to acknowledge four sources to effect efficacy. Those four sources were performance accomplishments, vicarious experience, verbal persuasion, and physiological states. These concepts are explained in depth within the review of literature.

Bandura's work was constructed as a means of behavioral change in the psychological realm, but his work was a catalyst for much research in sports psychology. Feltz recognized Bandura's efficacy theory as sports confidence, and employed his theories into her research. Feltz (1999) used Bandura's work to create the Coaching Efficacy Scale (CES). The CES is a multi-dimensional survey to investigate a coach's level of confidence in the areas of motivation, teaching technique, use of game strategy, and ability to build character in the athletes they work with (Feltz et al., 1999).

The CES was the instrument used to gather the data and test the null-hypotheses involved with this research. The present research was conducted to investigate a causal comparison between self-efficacy/confidence of successful high school athletic programs as defined by winning two or more state athletic championships and coaches who have not won two or more state championships.

Rationale for the Study

The link between certain traits and effective leadership has been proposed in the works of historians Carlyle (1888), Galton (1869) and researched by Judge (2002). This quantitative causal comparative research concentrated on leaders who have achieved success, focused on one trait and gained knowledge as to the importance of self-efficacy and confidence.

The Coaching Efficacy Scale developed by Feltz (1999) was used by the researcher with permission from Feltz to obtain data from the selected sample and to share the researchers' findings with the authors of the survey. Through the process, the information received was used to determine aspects of confidence in the areas of game strategy, player motivation, teaching of technique, and character development. These dimensions were then examined to determine if self-efficacy/confidence level could be a causal factor.

This research may be important for school administration during the hiring process. The results may determine whether self-efficacy is an additional factor to assist school leaders in an effort to ensure the best person is leading the school's athletic programs. The results of the study may be applicable in other administrator personnel decisions such as mentorship, student placement, and professional development.

Dungy (2010) made reference to mentors as those who help guide and shape the lives of those they influence. Having confident mentors in the schools who influence new teachers has helped to assure the success of the candidates hired. The experiences they will encounter will shape the efficacy of a new teacher. Bandura (1993) believes personal accomplishments are one of the key factors to developing efficacy. School administration may be able to use the information from this study to place new teachers with confident mentor teachers and to allow for them to be guided into positive accomplishments.

Following the same logic as the teacher mentor model, school administration could use the same process of pairing teachers to students. The personalities of some students with issues of efficacy could be placed in teachers' classrooms that have the ability to model high efficacy and will be able to influence them as Bandura (1993) believes, vicariously.

The information from this study, and moreover the use of an efficacy/confidence testing instrument could allow for school administration to help the professional development of a teacher. The professional development needs of the staff may be determined through appropriate measurements using efficacy scales and focus on areas where teachers feel unprepared.

Null Hypotheses.

H₁ The self-efficacy level of coaches with multiple athletic state championships are not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of motivation.

H₂ The self-efficacy level of coaches with multiple athletic state championships are not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of technique.

H₃ The self-efficacy level of coaches with multiple athletic state championships are not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of strategy.

H₄ The self-efficacy level of coaches with multiple athletic state championships are not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of character development.

Delimitations

This study involved athletic coaches in the state of Missouri, those who have and have not won a minimum of two athletic state championships as identified by the Missouri State High School Activities Association (MSHSAA). Only coaches from public schools were surveyed.

Definition of terms

Sports-Confidence: Degree of certainty individuals possess about their ability to be successful in sports (Feltz, Short and Sullivan, 2008 p. 27).

Self-Efficacy: Belief in one's capabilities to organize and execute the courses of action required to produce given attainment (Bandura, 1997 p. 3).

For this study the terms self-efficacy and confidence are used and refer to the same concept. Feltz and colleagues (2008) state, “Although these theory based constructs are invaluable in terms of the understanding they afford and the guidance they provide, the term ‘self-confidence’ has more meaning to practitioners and non-psychologists” (Feltz, et al., 2008. p 181).

Summary

The researcher recognized there are many factors that can lead to successful coaching, but sought to explore why some people have greater sustained success than the majority of their peers. This is of particular concern in the field of education when one believes most education graduates have been trained in a similar manner. The efforts for this research were built around the attempt to find one causal factor for this phenomenon. The factor researched was self-efficacy/confidence. Participants in the study were athletic coaches in Missouri public high schools.

If self-efficacy/confidence could be found to have a significant difference in athletic coaches and their level of success achieved, this research could be used as a catalyst to lead school administrators to the application of another measurement during the hiring process.

Four null-hypotheses were presented, based upon the work of Feltz et al. (1999) and her dimensions of athletic coaching, and their relationship with self-confidence. Those dimensions were in motivation, use of strategy, teaching of technique, and building character. The null-hypotheses presented were; the self-efficacy level of coaches with multiple athletic state championships are not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the categories of motivation, strategy, technique, and character building

CHAPTER TWO

LITERATURE REVIEW

Introduction

The researcher hypothesizes successful athletic coaching is in part impacted by successful leadership. Research has shown leadership can be predicted somewhat by certain unique individual traits (Judge, Bone, Ilies, and Gerhardt, 2002). This research is being conducted to see if there is a causal effect between winning multiple state championships in interscholastic high school sports and the trait of self-confidence. Specifically the researcher analyzed self-efficacy/confidence as it was addressed in the Big Five Personality Traits developed by several independent psychologists, but refined by McCrae and John (1992).

This review of literature focuses on multiple styles of leadership, the Big Five Personality Traits (McCrae and John, 1992), and the foundational concept of self-efficacy (Bandura, 1977). The review also included psychological aspects of efficacy as they related to the behavior of both individuals and collective groups, and the application of these principles in sports, coaching, and leading the teams. Albert Banduras' ideas were extensively researched showing the work he has theorized, as well as mentioned of the numerous projects other researchers have administered testing his theories. However, while efficacy has been tested in many areas of the psychology world, this review emphasized studies and conclusions of how it relates to the sporting world.

Within this review, the importance of efficacy is presented, as well as how efficacy is achieved and measured. The literature presented research showing individuals and coaches with high self-efficacy achieving greater success, and are more persistent in their task. The work of Feltz, Short, and Sullivan (1999) serves as the primary measurement of self-efficacy. Feltz is a leading researcher in the field of sports self-efficacy who has spent much of her career testing the

theories of Bandura. Together with her team, she created the Coaching Efficacy Scale. The Coaching Efficacy Scale is used to measure the efficacy of coaches as they lead teams; and as a reliable measure, it served as an important part of this study to evaluate if the efficacy of a coach was a causal factor in the success of a team.

Success and or winning can happen for many reasons in the high school interscholastic athletics. Each year brings a new set of possibilities. Reasons for the success of a team may include, but are not limited to, the talent level of the competitors, desire of the team members, work ethic or team cohesiveness are just a few of the contributors that may play a factor. The number of possibilities for success however is unlimited. Just like in a chess game, the quality of a move being made is dependent upon the move of the opponent, the same holds true with sports (Williams, Ericsson, Ward, and Eccles, 2008).

Factors that influence the success of a program can be both internal and external. Possible external factors might include task difficulty or luck as well as a host of other possibilities that could occur of which the player or team has little or no control of (DeRohan, Nagy, Meisenhelder, and Katayama, 2011). Individuals or teams that believe in this type of external locus of control typically have additional problems in the realms of psychological disorders or maladaptive problems (Liukkonen, Watt, Barkoukis, and Jaakkola, 2010). In contrast, individuals and teams who have a belief they are in control of the outcomes place a higher demand on their own desire to increase their abilities and will have a longer sustained effort toward the goals. “Research has shown that intrinsic motivation has been associated with adaptive cognitive, affective, and behavioral outcome” (Liukkonen et al., 2010, p. 296).

Chance and other external factors can lead to a loss or poor experience in the short term, but sustained success over a long period of time can be obtained. Reeves (2009) organized this

into four quadrants. Those quadrants are lucky, leading, losing and learning. Characteristics of teams who are lucky would include having success, but not really knowing how they attained the levels of accomplishment. They do not have a process to direct their actions, and the ability to sustain the level of success is compromised by changes in the organization such as new influx of human resources. These teams/individuals are not likely to maintain this success. Teams finding themselves in a losing quadrant are not having success, and they do not know the reason for the failures. It is highly likely they will continue down the same path of defeat. Those in the learning quadrant are not having success, but they do know why and know what to do. They are likely to have success in their future. Leaders are those who take chance and external factors out of the equations. They know what they need to do, have a system of preparation, and accomplish their task. These teams'/individuals' success rate is high, and it is likely they will maintain their success rate (Reeves, 2009). Reeves, as one of the current national spokesman for school leadership and his four quadrant theory leads the researcher into another section of the review of literature that of leadership.

Leadership

Throughout history leadership has been contemplated, sought, and immortalized. Poets, authors and scholars, such as Homer, Carlyle, and Alovio, have recognized leadership throughout history, and have given indications of the characteristics those leaders have had. Leadership will look different in situational aspects, but a good working definition would be a person with a process of influence that assists groups of people toward goal attainment (Northhouse, 2007).

All the theories of leadership cannot be reviewed, but the researcher focuses on specific theories such as one provided by Germain's dissertation showing a nexus between leadership and

expertise (Germain (2008). Germain provides a brief overview of theories related to leadership. Those theories are reviewed in the forthcoming sections but not in chronological order. The Trait Theory is the last theory reviewed as the Trait Theory establishes a framework and transition into the personality traits theme.

Great Man Theory.

There is little research available for the Great Man Theory, because it was developed prior to proper researching instruments and analysis. The Great Man Theory is based on the belief leaders are born and have innate characteristics that followers are searching to find. In times of need, leaders will arise to confront the problems and lead the people. These traits the leaders have are not learned or developed (Carlyle, 1888). The Great Man Theory was somewhat bolstered with recent research by Avolio (2007). He has shown there are certain traits associated with effective leadership. Some of those traits were persistence, drive, honesty, motivation, internal locus of control, and have self-confidence (Avolio, 2007).

The traits Avolio (2007) alluded to are supported by Banduras' Theory of self-efficacy (1977).

Efficacy beliefs influence whether people think erratically or strategically, optimistically or pessimistically. They also influence the course of action people choose to pursue, the challenges and goals they set for themselves and their commitment to them, how much effort they put forth in given endeavors, the outcomes they expect their efforts to produce, how long they persevere in the face of obstacles, their resilience to adversity, the quality of their emotional life and how much stress and depression they experience in coping with taxing environmental demands, and the life choices they make and the accomplishments they realize. (Bandura, 2006 p. 309)

Further research by Hoffman, Woehr, Youngjohn, and Lyons (2011) separated traits that are heritable from learned traits in an effort to distinguish between born leaders and making leaders. In their quantitative study, twenty-five traits were analyzed for their ability to yield leader effectiveness. Sixteen of the tested traits were considered to be traits an individual has at birth. Those traits were achievement motivation, initiative, ambition, energy, need for power, dominance, extraversion, conscientious, integrity, self-confidence, adjustment, creative, flexibility, self-monitoring, charisma, and cognitive ability. Learned traits were technical knowledge, past experience, interpersonal skills, oral communication, written communication, management skills, and problem solving skills, decision making, and organization (Hoffman et al., 2011).

Hoffman et al. (2011) found significant difference in fourteen of the sixteen traits that were tested. These findings add merit to the Great Man Theory.

Based on our results, there does appear to be a systematic, dispositional-based component to being an effective leader, supporting the ‘Great Man’ approach to leadership; however, state-like individual differences were also important correlates of effective leadership, substantiating the expansion of leader–individual difference models to include more malleable individual differences. (Hoffman et al., 2011 p.370)

Furthering Carlyle’s theory was Sir Francis Galton in 1869. In his book *Heredity Genius: An Inquiry into its Laws and Consequences*, Galton (1869) theorized a relationship between genetics and the ability for genius. Galton believed the genius a person will have was brought about by the genetic code working within their inherited traits. His work included the study of English nobility and their rise to success. He observed leaders who were the offspring of those who were also leaders. Traits that were identified as traits needed for leadership and

genius were passed down from family to family. Those who did not have the proper pedigree to pass on needed traits were labeled as less important and would be followers without much hope of them or their offspring having the ability to lead or have genius capabilities (Galton, 1869).

The Great Man Theory has faced much scrutiny and criticism from people outside the elite bloodlines. Elitists being the only people who can lead and the capacity for growth being non-existent did not inspire support from the masses. The Great Man Theory does not take into consideration climate, political agendas, or the relationship of the followers. Situational factors pointed out by Blanchard and Hersey (1970) such as the motivational and experiential readiness of the followers, and efficacy issues discussed by Bandura (1977) pointed to the error of this concept, yet the theory is still held onto in the educational setting in regard to hiring selection and professional development as seen in questions during the interview process to determine the traits of an applicant.

Behavioral Theory of Leadership.

The Behavioral Theory of Leadership arose in contrast to the Great Man Theory in the 1950s – 1960s. This theory suggested leadership was not a birthright, but instead could be a learned behavior (Germain, 2008). This is supported by Bandura's Social Cognitive Theory. He states, "Extraordinary personal feats serve as transforming experiences." (Bandura, 2006 p. 308) Behavioral leadership would be dictated by how the leaders act in response to a stimulus, as opposed to the leaders having a prescribed set of skills. Simply put, this theory looks at what the leaders do, instead of what characteristic traits the leaders have (Williams, Ricciardi, and Blackburn, 2006). Leaders can invoke a behavior by their actions. The Behavioral Theory involves theories by prominent psychologists. Pavlov (1926) originated use of stimulus / response, coining the term classical conditioning, or a behavior due to a stimulus, which was a

learned behavior. The stimulus /response reactions Pavlov described is similar to Bandura's (1977) theory of self-efficacy in some instances. Classical conditioning builds a behavior, or debilitates a behavior depending on the response from a stimulus. People who experience success believe they are able to complete the task again, and will persist in the endeavor. The same is true in the opposite. Experiencing failures will lead to negative beliefs about the task and an individual likely will avoid those situations. The researcher would point out the self-efficacy sources Bandura alludes to, is a form of classical conditioning (Bandura, 1977).

Watson, who is considered the founder of behaviorism, furthered Pavlov's work with his experiments on conditioned emotional responses (CER). Conditioned emotional responses refers to the classical conditioning that occurs when a learned stimuli is introduced to a subject (Ciccarelli and White, 2011). This is particularly related to leadership in the way a leader relates to the followers and the responses they have to the stimuli.

Another behaviorist was B.F. Skinner. His work with behavior modification and reinforcements, both positive and negative, has led to a multitude of studies from a multitude of perspectives (Ciccarelli and White, 2011). His work has provided leadership models in schools not only in the United States, but also throughout the world. Bernier, Simpson, and Rose (2012) stated, "Although Skinner's demonstration of reinforcement was primarily in an experimental setting, the applied literature demonstrates the same results; reinforcement delivered after a response increases the future occurrence of the behavior" (p. 45). Positive reinforcement may be a rewarding event to change a behavior, while negative reinforcement is the removal of an adverse stimulus to again change a behavior. This description identifies the construct Bandura (1977) alluded to in this theory of self-efficacy. Efficacy beliefs are dictated by the positive experiences or the removal of negative experiences, and will be further elaborated on in this

review. Leadership theories have developed out of the work of early behavior researchers, one of which is situational leadership.

Situational leadership.

Situational leadership has its roots in the Contingency Theory of leadership.

Contingency and situational leadership are similar in the belief there is not one set way to lead. External and internal factors dictate different requirements the leaders must have and use upon their arrival, “However, unlike situational theories, contingency leadership theories are based on the premise that leadership styles are fairly rigid or relatively inflexible” (Peretomode, 2012 p.15). Situational leadership is considered flexible, and leadership styles can change as the situation demands (Peretomode, 2012). For the purpose of this review, the researcher focuses on situational leadership. The rationale for this is because situational leadership deals more with the leadership involved with the people being led, the leaders’ ability to alter their leadership style, and the leader/follower relationship (Blanchard and Hersey, 1970). This aspect is key to the coaches surveyed as they have achieved their success, or lack of success while leading groups of athletes with a wide variance of characteristics and traits.

Situational leadership was popularized in the 1970s through the early 1980s by the research of Blanchard and Hersey. The premise behind situational leadership states the environment will dictate the style a leader needs to use. The successful leader will be able to adapt their style to meet the needs of those primarily being led (Germain, 2012).

The two main constructs of situational leadership are the leadership style and the maturity or ability level of those being led. Hersey and Blanchard (1970) described the leadership style in four categories. The first style is known as quadrant-1, and it is the telling style of leadership.

This is an autocratic system used with a group of followers who would be considered inexperienced or low self-starters.

At this level, the instructor must provide high support and high direction in order to help the student move to the next stage. Support often comes in the form of individualized instruction and a learning environment where the student can request assistance without fear of humiliation. (Carder, 1996 p.2)

Quadrant-2 is the selling style of leadership. The process here involves convincing the followers the course of action is the best practice. Followers will need a lot of support and motivation. “The instructor is still providing high direction and support, but is doing more teaching than telling and receiving more feedback from the student in the way of assignments that require critical thinking” (Carder, 1996 p. 3).

Quadrant-3 leaders will involve the followers in the decision making process. This allows for the stakeholders to take ownership in the productivity of the team. Students in this quadrant are self-motivated, and desire to learn without the urging from the instructor (Carder, 1996). The last style is quadrant-4. This allows for the leaders to delegate a task to the followers with the belief they are very competent in their abilities (Blanchard and Hersey, 1970). In the athletic coaching discipline, coaches are striving to have their athletes in this quadrant. Situational leadership is prevalent in interscholastic athletic coaching. The comparison is easily made between quadrant-1 and freshman level teams. The same applies to junior varsity teams and quadrant-2. Varsity teams likely consist of quadrant-3 and 4 athletes.

In comparison to the previously reviewed theories, situational leadership differs from them because it delves into more than just the traits of the leader. Situational leadership also accounts for the contextual environment the leader is in when the leader arrives. The context

could only be limited by the number of different personalities, climate, and circumstances the leader will be facing (Williams et. al., 2006). Another form of leadership called Transactional Leadership differs from Situational Leadership in that it focuses on the interaction of the individuals more than the circumstances.

Transactional leadership.

Transactional leadership is a style that describes a relationship between the leaders and the followers in terms of the transactions between them. The exchange of goods, services or commodities from the followers will be reinforced by the rewards or punishments from the leaders (Burns, 1978). The exchange process was further explained by Van Eeden, Cilliers, and Van Deventer as a social relationship. The social relationship will be in terms of the leader communicating clearly the expectations for the followers to successfully complete their task. In turn the followers will know what they will need to do for a reward or to avoid punishment (Van Eeden, et al., 2008).

The overarching goal of transactional leadership is productivity. This is a results driven style of leadership (Ruggieri, 2013). The transactional style is particularly productive in organizations that value production and success over people and relationships. The leaders are negotiators who make their decisions upon the contingent of creating more power within their group, which in turn will increase production (Ruggieri, 2013).

Within the transactional style leaders can be either active managers by exception or passive managers by exception. An active manager by exception is one who looks for and seeks out possible mistakes, problems, complaints, errors in procedures, and failures. They will then take actions needed to prevent breakdown and increase productivity (Van Eeden, et al., 2008). An example of this in the sporting arena would be a coach watching video tape of a practice to

find errors and correct the mistakes prior to a game. Passive managers by exception will wait until productivity is decreasing and will then take actions to correct the mistake (Van Eeden, et al., 2008). Using the same example, a passive manager by exception would wait until the game was over to analyze the errors.

Building on Burns transactional theory, Bass theorized a leadership style that not only allowed for the productivity associated with the transactional theory, but also had a positive effect on the followers (M. Germain, 2012). This theory is called transformational leadership (Burns, 1985).

Transformational theory.

The transformational theory implied the leader is involved with the transformation of the followers. The transformation goes beyond punishment and reward to the followers internalizing the vision, goals, beliefs, and desires of the leaders (Ruggieri, 2013). The process of transformational leadership involves building relationships with the followers. The development of relationships results in an increased level of trust and motivation between leaders and followers (Kim, Magnusen, Andrews, and Stoll, 2012). Relationships are developed in four conceptual arenas. Those are idealized influence, inspirational motivation, individualized considerations, and intellectual stimulation (Van Eeden, et al., 2008).

Idealized influence is placing the needs of others before those of your own and not using your power for your own benefit or being selfless while engaged with your followers. The leaders also have high moral standards and provide challenging tasks for those people for whom they responsible (Balyer, 2012). Balyer also noted leaders have the ability to motivate and inspire those around them (2012). Leaders have the ability to create a vivid image for the followers showing them a bright future where success can be achieved. This concept follows

Bandura's theories on self-efficacy in relation to vicarious experiences and verbal persuasion, concepts addressed later in the chapter in detail (1977).

Individual considerations involve focusing on the skills and talents of individuals. Considerations look for and seek out opportunities to make an impacting impression on the lives of others. To do this, a leader must engage, educate, equip, encourage, empower, energize and elevate the people around them (T. Dungy, 2012).

The last ideal is that of intellectual stimulation. Leaders having this ability cause the followers to think innovatively (A. Balyer, 2012). Senge refers to this in his book *The Fifth Discipline*. The utilization of his ideas for organizations to foresee future trends and think outside the box in dealing with problems allow organization to keep a competitive edge. To propagate this way of thinking, an organization relies on personal mastery. Personal mastery is developing oneself intellectually in areas of engagement. Other components are the understanding of mental models, creating a shared vision, and team learning (Senge, 1990).

Transformational leadership is the ability to get people to change, because they want to change (Northhouse, 2001). The change brought about is the result of the follower's commitment to the leader. One adverse effect that is a potential problem occurs when the follower is more committed to the leader than the organization (Kim et. al., 2012).

Transformational leadership relates in the field of education and coaching. Demir (2008) investigated the relationship of transformational leadership and teacher efficacy. Findings from Demir showed a direct relationship between the principals' transformational leadership style and the efficacy of the teachers, which in turn had a positive effect on school culture (2008). The researcher stated, "It was found that transformational leadership behaviors of principals were significantly related to collective teacher efficacy, supporting hypothesis H1" (Demir, 2012 p.

102). In Demirs' (2012) study, H1 is defined. "H1: The transformational leadership behaviors of principals will be positively related to the collective teacher efficacy" (p.98).

Trait Theory.

Trait Theory came to prominence shortly after the Great Man Theory. The ideological belief was the same in context of leaders who were born with inherent traits propelling them into leadership roles (Germain, 2012). The difference between Galton's (1869) and Carlyle's (1849) great man theory and trait theory is those traits are not passed on because of the status of the parents.

Though the Trait Theory has had many biases placed on it, and had been discarded because of insufficient research, the Trait Theory has become popular again as a method of identifying the emergence of leaders, and leadership effectiveness (Zaccaro, 2007). A study by Zaccaro, Kemp, and Bader (2004) has shown a link between traits and the prediction of leadership effectiveness. Zaccaro (2007) argues traits have reemerged as a viable theory to be researched scientifically. "More recently, a number of studies have linked personality variables and other stable personal attributes to leader effectiveness, providing a substantial empirical foundation for the argument that traits do matter in the prediction of leader effectiveness" (Zaccaro, 2007 p. 6). This is important to this research showing a nexus between successful coaching and traits, specifically the trait of self-confidence. Two of the studies mentioned by Zaccaro (2007) were Zaccaro et al. (2004) and Judge et al. (2002). Both studies were used in the current study, and Judge et al. (2002) was used extensively in the ability to show personality traits and the prediction of leadership.

Multiple studies have been performed to obtain information pointing to traits and the potential for leadership (Judge et al. 2002, 2009; Hoffman et al., 2011). To date there has been

little evidence to show strong connections to any one trait (Judge, 2009). The key is certainly a nexus between the traits, motivation, intelligence and situation in which the leader emerges (Zaccaro, et al. 2004). However, Germain (2012) pointed to multiple traits that have shown up often in the study of leaders. Those are drive, charisma, outgoing, and self-confidence.

Self-confidence has been identified as a trait observed in effective teaching and demonstrated by expert teachers (Smith and Strahan, 2004). This statement is core to the research completed in this study. Smith and Strahan (2004) stated effective teaching and expert teachers had self-confidence. The researcher contends effective coaches are effective teachers, thus propelling this review of literature into the psychology of personality traits.

Personality Traits

As this review began to develop a more focused attempt to show a relationship between self-efficacy/confidence and a coach's success, an overall perspective of personality traits was needed. From the beginning of the leadership theories, traits have been at the forefront of the emergence of leaders and their effectiveness. Trait theorists are not concerned about why a trait exists, or the manner a person may go about changing a trait. They are concerned with finding how people act, think and respond in certain ways, and then making predictions based on their findings (Ciccarelli, and White, 2011).

Allport and Odbert's (1936) work involved going through a dictionary to find words that described a trait. Their work included 18,000 words. Knowing this was far too large of a number to use clinically, they were able to pare down their list to two hundred traits.

To further delimit this number, researchers introduced the idea of surface traits and source traits. Surface traits were described as those easily seen and diagnosed. The source trait were those traits that explained the behaviors represented by the surface traits (Cattell, 1950).

Cattell (1950) named sixteen source traits. Those traits were reserved, concrete thinker, easily upset, submissive, serious, rule defying, shy, tough, trusting, practical, forthright, self-assured, conservative, group dependent, undisciplined and relaxed. The source traits and their polar opposites allowed for a model to be developed and studied the behaviors of people in relation to their personality traits (R. Cattell, 1995).

Still believing sixteen was too large of a number, researchers further narrowed down the traits. Today psychologists use a five factor model agreed upon through multiple studies (Botwin and Buss, 1989; Jang, Livesly, and Vernon, 1996; McCrae and Costa, 1990). The Five Factor Model consisted of: Openness, conscientiousness, extraversion, agreeableness, and neuroticism (Ciccarelli and White, 2011). These traits are known as the Big Five Personality Traits and are defined in greater detail below.

Openness

Openness refers to a trait describing a person's willingness to try new things, and actively seek out new experiences. In contrast, a person who scores low in the openness trait likes things to stay the same and resists change (Ciccarelli and White, 2011). Descriptors of a high scoring individual include creative, artistic, curious, imaginative, and nonconforming. As a trait, openness does correlate to overall leadership when predicting leadership emergence and effectiveness. Judge (2002) found a correlate of .24. When distinctions were made between emergence and effectiveness, openness was again found as a significant variable (Judge, et al. 2002). Openness and the correlation to leadership could be due in part to creativity, outside the box thinking, willingness to take risks and visionary thinking (Judge, 2002). Descriptors such as these are what leadership in the business world needs to look like and is consistent with Judge's (2002) analysis that openness is the strongest predictor of leaders in the business world.

Judge (2002) has shown the creative thinking ability of open leaders had a positive correlation to leadership. He stated, “After extraversion, conscientiousness and openness to experience were the strongest and most consistent correlates to leadership” (Judge et al., 2002 p. 773). Bono and Judge (2004) believed this was because individuals open to experience are leaders with vivid imaginations and score highly on intellectual stimulation test. Also, these leaders are willing to challenge the way things have always been done with new innovations.

Openness to experience also has a side that does not correlate well to leadership. Judge et al. (2009) stated:

Because open leaders are willing to try most anything in the pursuit of organizational success, these leaders might get easily distracted with vogue ideas, therefore pursuing short-term strategies that defy deeply held corporate values and traditions, potentially compromising an organization’s long term stability. (p. 868-869)

Conscientiousness

Conscientiousness is a trait encompassing characteristics of organization, reliability, neatness and ambition for those scoring high (Ciccarelli and White, 2011). The opposite, or low scorers indicators reviewed were unreliability, laziness, carelessness and negligence (McCrae and Costa, 1990).

Conscientious leaders who show a high score are able to develop trust from their followers. In turn the leaders must be willing to trust the followers (Hakimi, Van Knippenberg, and Giessner, 2010). These leaders will model self-discipline and are resilient with their strong desires (Costa and McCrae, 1992). The work climate a conscientious leader creates will have justice, fostered by their high integrity (Mayer, Nshil, Schnieder, and Goldstein, 2007).

Judge (2002) found conscientiousness as a trait could be useful for leadership emergence. The behaviors they show will be observed and rewarded by their superiors. It has the second strongest correlate to leadership behind extraversion. Conscientiousness was rated higher for leadership emergence than leadership effectiveness, meaning those individuals may rise to leadership, but may not be a great predictor of how well they will do in the leadership role (Judge et al. 2002).

The lack that may come in leadership effectiveness may be the result of those leaders being too cautious. They are often very analytical and think through ideas instead of being willing to take risk and be innovative (Judge et al., 2009).

Leaders who are highly conscientious but low on agreeableness may be abrasive and impersonal with followers when delivering negative feedback, and although conscientious leaders may be mindful of the preferences of a work group, these leaders may hesitate to make strategic decisions that in anyway oppose consensus opinion. (Bono and Judge, 2009 p. 868)

Extraversion

The third member of the Big Five Personality Traits reviewed will be extraversion. This trait has two branches to use in defining the high and low scores. A person scoring high would be considered an extravert, and in the opposite, low scorers were classified as introverts (Ciccarelli, and White, 2011).

Introverts are typically depicted as those comfortable being alone, reserved, or those who do not want to be in front of crowds. Surface traits associated with introverts would be shyness, reclusiveness, and pessimist, and desire to be alone (McCrae, and Costa, 1990). Cooper (2013) acknowledges introversion being assumed as shyness, but that is not always the case. The reason

for introverts to need to be alone is because of how their brain calibrates rest and the ability to recharge. Introverts may not be shy or avoid social events, they may need time to refresh, and their mechanism is through alone time (Copper, 2013).

Extraverts would be classified as socialites, talkative and optimistic (Ciccarelli, and White, 2011). They are the life of the party, and this often allows for them to emerge as leaders within a group (Judge, et al., 2002). Extraverts receive their energy from being around other people (Cooper, 2013). Bono and Judge (2004) found extraversion as being the highest ranking correlate for transformational leadership. In a meta-analysis between personality traits and leadership Judge and Bono (2002) found extraversion to have the strongest correlate of any of the Big Five to both leadership emergence and leadership effectiveness. This trait is suggested to be the most important one for leadership. The idea for this was because socially dominant people usually will assert themselves into leadership positions (Judge et al., 2002). The down side to extraversion happens when leaders do not solicit input from their followers. This could lead to poor collaboration and lack positive culture and climate (Judge et al., 2009).

Athletic coaches are found in a wide range of extraversion, introverted, extroverted or somewhere in between and more importantly will be working with athletes and groups of athletes at both ends. Cooper stated:

If we focus on simply being extremely aware of which type we're dealing with, noticing small behaviors that point us more in the extroverts or introverts direction, then I believe we'll be easily on the right track to dealing with people in the right way. (Cooper, 2013 p. 15)

Agreeableness

Those scoring high in the Big Five Trait of agreeableness would be described as friendly and trusting (Ciccarelli, and White, 2011). People scoring low would have characteristics of being uncooperative, rude and irritable (McCrae, and Costa, 1990).

Agreeable leaders have genuine care for the people they work with and promote pleasant working environments. When they deliver feedback to the followers, they are empathetic in their delivery, and try to avoid hurting the employee (Mayer, D., Bardes, M. and Piccolo, R. 2008).

Though followers may find working for an agreeable leader a pleasure, often those scoring high will not emerge as a leader. Judge et al. (2002) explains, “Because agreeable individuals tend to be passive and compliant, it makes sense they would be less likely to emerge as leaders” (p. 774). Of the Big Five Traits agreeableness was not shown to be a correlate of leadership; however, aspects of this trait, such as developing trust and willingness to help others, are moderately effective as transformational leadership (Judge et al., 2002).

Neuroticism

Neurotic behavior, for the majority, often brings forth a negative connotation. Psychologists are beginning to refer to this trait as emotional stability as opposed to neurotic (Judge, Piccolo, and Kosalka, 2009). To clinicians, either term refers to how well the individual is emotionally (Ciccarelli, and White, 2011).

Unlike the other traits that had socially acceptable behaviors associated with high scores, neuroticism high scoring will result in what Judge (2009) describes as dark behaviors. Those who do score high in neuroticism will reflect worry, anxiety, and major changes in temperament. Those with low scores are considered to be in control, with high self-esteem and self-confidence. The low scoring neurotic can score too low for social acceptability and exhibit hubris. Hubris is

noticed in people showing excessive pride in one's self and an inflated sense of self-confidence that is really not true (Baumeister, Campbell, Krueger, and Vohs, 2003).

Because neurotic behavior is measured directly opposite of the other Big Five Traits, it was scored in the negative parameter in Judge's (2002) meta-analysis. The correlate factor was -.24, placing it a close third for being able to use traits to predict leadership emergence and effectiveness (Judge et al., 2002).

Confusion in this review came when a critical review of Judge's (2002) meta-analysis revealed that eight of the ten past studies had self-confidence listed as a major trait associated with leadership. Questions arise as to why neuroticism would not end up higher as a predictor of leadership. To help answer this concern, Bandura (1977) brought to light the theory of self-efficacy, and how it can relate to all aspects of behavior. His theories and related literature will be reviewed in the next section.

Self-Efficacy

As mentioned earlier, self-efficacy theory was developed as an offspring of Albert Bandura's (1977) work with social learning theory. Within his work, Bandura states people are more than passive reactors within the environment, but rather are proactive agents in the regulation of their cognition, motivation, actions, and emotions. These behaviors can be trained and reprogrammed if needed. The behavioral changes are made through the altering of a person's self-efficacy. Again, self-efficacy is a "...person's belief in one's capabilities to organize and execute the courses of action required to produce given attainment" (Bandura, 1997 p. 3). Bandura theorized that to change the behavior of an individual, one must address the self-efficacy of that individual (Bandura, 1977).

To be able to address self-efficacy, a method of measurement is needed. The trouble with measuring self-efficacy, or confidence, arises with the reality that a person may have high self-efficacy in one domain and low self-efficacy in another. Defining self-efficacy in general terms may have little to no relationship to more specific areas of self-efficacy or the behaviors of a person (Bandura, 1997).

One construct developed to estimate a person's self-efficacy is the General Self-Efficacy Scale (GSE), proposed by Sherer, Maddux, and Mercandante, (1982). This scale is a seventeen item analysis of how a person will gauge their expectations in a new situation. The Sherer GSE has been used and cited in more than two hundred published studies (Chen, Gully, & Eden, 2001). The reliability of the Sherer GSE has been found to be moderate to high, ranging from .76 - .89 for internal consistency, but has a low estimate for test-retest reliability (Chen et al., 2001). Validity of the Sherer GSE is in doubt. The scale does have the ability to measure self-efficacy, but the test is multi-dimensional and also measures other constructs of self, such as self-concept. Self-concept and esteem, are measures of what one thinks of his or her value, worth or importance. These constructs are related only because they are about one's self, but are different in the belief about one's capabilities. The Sherer GSE does not distinguish the difference between the self-concepts (Chen et al., 2001).

Chen et al. (2001) made reference to a new GSE (NGSE) that was better able to measure the construct. The researchers found seven questions in the SGSE that were distinct from the self-efficacy construct. As a team, they also constructed and tested seven new questions. Through their testing procedures the team found six of the questions to be linearly redundant, yielding a test battery of eight questions. These questions were measured for test-retest reliability and determined to be high at a .62 level.

Two independent panels found the NGSE scale met 98 percent of the constructs definition of self-efficacy. The results indicate the validity of the NGSE scale to be a substantially more consistent construct of self-efficacy than that of earlier models (Chen et al., 2001).

General self-efficacy was termed such because it was meant to cover a broad range related to the confidence a person has in multiple situations (Luszczynska, Scholz, and Schwarzer, 2005). In this manner self-efficacy or confidence can be used in terms of multiple tasks. However, a measurement of multiple facets of self-efficacy may not be predictive of an individuals' efficacy in singular tasks. Bandura stated, "The 'one measure fits all' approach usually has limited explanatory and predictive value because most of the items in an all-purpose test may have little or no relevance to the domain of functioning" (Bandura, 2006 p.307). An example of this in sports could be that a point guard in basketball may not be confident in their abilities to play center for their basketball team. "People differ in the areas in which they cultivate their efficacy and in the levels to which they develop it even within their given pursuits" (Bandura, 2006 p. 307). Banduras' ideas hold true in multiple professions as well. A businessman may not have the same efficacy beliefs about the construct of coaching they would have as an investor. Coaches are teachers and therefore teachers may have similar efficacy beliefs.

For this study, the research is based upon work that is domain specific and relates to the trait of coaching self-efficacy. The instrument used in this research was the Coaching Efficacy Scale (CES) developed by Feltz and her colleagues (Appendix A). The CES is a multi-dimensional test battery, investigating four areas of coaching efficacy. The four dimensions

Feltz and colleagues pointed to were game strategy, motivation, technique and character building (Feltz, Short, and Sullivan, 2008).

Self-efficacy in Athletics

When reviewing the proposed relationship between coaching success and self-confidence, one must first look at the construct of self-confidence. The root of self-confidence and self-efficacy research can be traced to the research provided by psychologist Bandura (1977). Since Bandura's work, over two hundred studies have been conducted testing his theories. Bandura's theories have stood the test of time and have been relatively unchanged since their inception in 1977 (Feltz, et al., 2008). Put simply, self-efficacy represents an individual's beliefs regarding how he or she will perform in certain situations (Bandura, 1993). The terms self-efficacy and self-confidence are somewhat interchangeable and can be used with the same meaning, though Bandura's term implies more specified psychological criteria. Another related term, sports confidence, is defined as the degree of certainty individuals possess about their ability to be successful in sport (Vealey, et al., 1998). Other constructs of the self are not related to self-confidence & self-efficacy. Terms such as self-esteem and self-concept do not relate to how an individual believes about how they will be able to perform in a situation, be it in sports or other activities (Fletz, et.al, 2008).

The work that Bandura first presented in the late 1970s was an attempt to show the relationship between behavioral changes and the level of perceived self-efficacy. Though his work was not primarily based on the performance abilities or the success of athletes, much research has since been devoted to testing his theory through athletic performance, namely through the studies of Feltz et al. (2008). These researchers began with and conducted studies based on an understanding of Bandura's complex theory. Specifically, Bandura (1997) theorized

that self-efficacy is developed through four sources. The sources of self-efficacy include performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal (Bandura, 1997).

The first and strongest of the four sources of self-efficacy is identified as ‘performance accomplishments.’ Performance accomplishments are rooted in an individual’s personal mastery of a task. According to Bandura, when a person has been able to successfully complete a task, that individual is more likely to feel confident in approaching that task again or making decisions related to the task. Bandura stated, “This source of efficacy information is especially influential because it is based on personal mastery experiences. Successes raise mastery expectations; repeated failures lower them, particularly if the mishaps occur early in the course of events” (Bandura, 1977 p. 195). The same is true inversely when the task is repeatedly failed. Ultimately, a person who has mastery of a task tends to be more diligent in the effort they put forth and visualizes himself or herself in successful circumstances (Bandura, 1977).

Valiante and Morris (2013) studied professional golfers to explore their self-efficacy beliefs. Valiante and Morris cite several studies (Feltz, Landers & Raeder, 1979; Myers, Feltz, & Short, 2004) linking self-efficacy to motivation and performance in both the individual and the team. The study revealed professional golfers source of self-efficacy. “Memories of previous successes were pervasive in their perceptions of why and how they overcame the obstacles in their paths and achieved their career successes” (Valiante and Morris, 2013 p. 134). This is consistent with Bandura’s (1977) belief of performance accomplishments being the most powerful source of self-efficacy.

Samson (2014) attempted to connect Bandura’s (1977) idea of individuals with high self-efficacy and their willingness to persist longer in their efforts to goal attainment. Her work was a

longitudinal study on long distance runners, and their preparation for a marathon. She found physiological and emotional states to be the main source of efficacy beliefs for distance runners at the onset of the training, and past experiences of success increased as a source of efficacy throughout the training as the event came closer (Samson, 2014).

A dissertation by Hepler (2008) researched mastery and experience, specifically the relationship between these elements and the decision making process, both in regard to speed and accuracy of the decision made. Hepler's study consisted of college students who had at least one year of competitive basketball experience (n=70). Though the majority of her study was focused on heuristics, by-products of the study revealed a positive correlation between self-efficacy and decision making quality (Hepler, 2008), confirming Bandura's postulation.

Gladwell (2011), another prominent name in the study of social sciences, also contends that mastery is a significant factor in efficacy. In fact, in his book *Outliers*, he went further and assigned a measurement of time to the performance accomplishments and mastery needed to truly raise an individual's level of self-efficacy. Gladwell has indicated that to master a task, ten thousand hours should be devoted to the task, and undoubtedly, history has shown us that those who are truly masters of a task, be it in the realm of computers, sports, music, or any occupation, have put time into their craft so that they will be able to repeat the task perfectly (Gladwell, 2011).

Gladwell recounted numerous stories of those who are seen as masters of their profession or craft. These figures have risen to the level of mastery and genius because of tireless devotion to their practice and the subsequent hours logged. One such example is Bill Joy who began his career as a student in 1971 as a computer programmer. Today most of his work is still used and his developments in software are directly linked to the history of the internet. Joy has been

referred to as the Edison of the internet. Gladwell (2011) also noted that though Wolfgang Mozart is considered a child prodigy by many because of works produced at age six, he did not actually write his masterpieces until he had been composing for more than twenty years. Likewise, while The Beatles came to the United States in 1964 and were an overnight success in America, the reality is that the band had already been performing for more than seven years in Europe (Gladwell, 2011). Gladwell's obvious yet meaningful conclusion confirms that mastery, specifically mastery that stems from an individual's effort and commitment to a task or skill, ultimately leads to confidence and efficacy.

The work of Feltz, Chase, Moritz, and Sullivan (1999) lends a similar conclusion to past experiences of success and the perception of mastery in the world of coaching. Feltz, et al., (1999) in an investigation of coaches' performance accomplishments and mastery, found the experiences a coach has had can affect the efficacy of a coach. This connection expands in a chain that significantly affects player and team success: a coach's past experiences directly affect self-efficacy; self-efficacy impacts a coach's behavior; and ultimately, the behaviors that stem from a coach's self-efficacy will impact the performance of the team, the enjoyment and satisfaction of the players, and finally the players' and team's efficacy. It is not surprising that, according to the study, coaches who had a higher efficacy typically had teams and players with more wins and greater satisfaction (Feltz, et al. 1999).

Furthermore, coaches who have a high efficacy due in part to their experiences have more confidence in their roles as a motivators and thus utilize the aspects of positive feedback with their players more than those of coaches with low efficacy (Kent and Sullivan, 2003). Clearly, the experiences of a coach are linked to the efficacy a coach has, and their efficacy then relates to the behaviors demonstrated by the coach and ultimately the team (Feltz, Short, &

Sullivan, 2008). The reason for this coaching behavior was researched by Kent and Sullivan (2003) and they suggested that coaches with experience transition from memorized routine and organization, to concerns for the improvement of the athletes and their performance.

While Bandura's established connection between efficacy and mastery is a part of modern psychology, the phenomenon itself is far from new. In fact, in this review of literature, it is interesting to note evidence of efficacy and performance accomplishments in ancient literature. One clear and poignant example of performance accomplishments is found in Biblical Literature, in the Book of 1 Samuel (New International Version, 2008). David as a young man was sent to the battlefield to take supplies to his brothers who were at war with the Philistines. Goliath was the champion for the Philistines and was very large, standing over nine feet tall (1 Samuel 17:9, NIV). David was not a warrior at this point, but he did want to fight Goliath for reasons that will be discussed in the verbal persuasion and emotional arousal sections.

David went before the King of the Israelites, Saul, attempting to persuade Saul to let him fight Goliath. Saul did not have the confidence in David that David had in himself and God. To convince him, David made reference to his prior victories. David's self-efficacy came from God and his accomplishments on the battlefield with lions and bears.

David's statement to Saul was:

...Your servant has been keeping his father's sheep. When a lion or bear came and carried off a sheep from the flock, I went after it, struck it and rescued the sheep from its mouth. When it turned on me, I seized it by its hair, struck it and killed it. Your servant has killed both the lion and the bear: this uncircumcised Philistine will be like one of them... (1 Samuel, 17:34-36, NIV)

Bandura (1977) outlines the second key source of self-efficacy as vicarious experience: the observation of other people. By watching how other people handle certain situations and by

experiencing other people's successes or failures vicariously, an individual's thought pattern about the probable outcome of his or her own experiences is altered. Bandura said, "Many expectations are derived from vicarious experience. "Seeing others perform threatening activities without adverse consequences can generate expectations in observers that they too will improve if they intensify and persist in their efforts" (Bandura, 1977 p.197). This information can be derived through observing and comparing oneself with others. In fact, vicarious influences that lead to imagery, and heighten self-efficacy can come from several media. An example of this was in the 2008 Summer Olympics. After many successful American events, commercials were made showing the youth of the country then making new goals to match or beat the standard that was just obtained (Fletch, Short and Sullivan, 2008). American children watched the Olympians competing for America, and that inspired them to be like an Olympian. Bandura (1977) states in the social cognitive theory, people actively seek out models that can provide the realistic information about their own capabilities.

The reality, particularly in the world of high school sport and athletics, is that role models are always going to be present. They can be good role models or they can be poor role models, but they will be present. In concurrence with the concept of vicarious experience and emphasizing the idea of modeling as an important influence, Dale believes coaches are strong role models for building confidence. He states coaches have the ability to convince athletes they can be successful. Coaches who build confidence, coach in a manner that makes the athletes feel good about themselves, set high standards for the athletes, and motivate without belittling or embarrassing them (Dale, 2011).

Beyond modeling other people, research has also been conducted on the way a person visualizes themselves in relation to behavioral change and persistence toward a goal; the

assumption is that this visualization also qualifies as vicarious influence. Murru and Ginis (2010) conducted a study asking participants to create a view of their possible selves, meaning what they could possibly become (Murru and Ginis, 2010). The possible selves study was conducted on eighty individuals, nineteen men and sixty-one women, and analyzed the effects of prescribed self-interventions and the relationship between self-efficacy and exercise behavior.

The researchers placed participants into three groups (Murru and Ginis, 2010). The first group was assigned to a hoped-for possible self's intervention condition. This group was asked to generate images of themselves performing a prescribed exercise routine over an eight week time period. A second group of participants was placed in a feared possible self's intervention condition. This group was similar to the first in all aspects with the exception of the images created. They were asked to create images of themselves as if they did not adhere to the exercise routine. A third control group was given a quiz about physical activity, without creating any images of their possible selves.

Also, each member of the three groups was asked to keep a log book monitoring their exercise. Analysis of the data revealed the groups that did complete a possible self's intervention, both the hoped for and feared groups, reported a sizable effect in the difference of total minutes of exercise compared to the control group. Interestingly, whether the vision that the participants had of their possible selves was positive or negative was not the factor. The influential factor in the intervention was that they did have a vision of themselves (Murru and Ginis, 2010). This investigation seems to confirm the visualization of possible selves as a meaningful vicarious influence.

Persuasion, manipulation, and motivation are all words that describe how Bandura's (1977) third source of efficacy is delivered. Often, through the use of verbal persuasion, people

can be made to believe that they can accomplish a goal they otherwise would not have attempted. Bandura stated, “In attempts to influence human behavior, verbal persuasion is widely used because of its ease and ready availability. People are led through suggestion into believing they can cope successfully with what has overwhelmed them in the past” (Bandura, 1977 p.198). The building of self-confidence and motivation through this technique can be used to influence personalities and have a huge impact on all aspects of life. Research is continually being conducted in all ranges of workplaces and athletics to confirm this (Sohrabi, Atashak, and Aliloo, 2011). Coaches rank verbal persuasion techniques as among the most effective for increasing the efficacy beliefs of their athletes (Vargas-Tonsing, Meyers, and Feltz, 2004). Feltz (2008) stated the strength of the persuasion depends on the prestige, credibility, expertise, and trustworthiness of the persuader (Fletz, Short and Sullivan, 2008). This implication further influences the need for the proposed research to be conducted, namely to determine if a coach’s own self-confidence or self-efficacy renders that coach’s verbal sway over his or her players more effective. It is also important to note that another source of verbal persuasion can come from societal expectations, such as gender or racial biases. People tend to live up to what society expects of them, or they may live down to what is expected of them. Milner and Hoy (2003) claim introducing a negative belief or a stereotype about a social group in a certain task domain can greatly affect an athlete’s efficacy beliefs (Milner and Hoy, 2003). Thus the completed research also indicated further study is needed in regard to coaches who use more negative, critical, or judgmental verbal techniques to sway player behavior.

The final source Bandura (1997) discussed involves our own physiological reactions while completing a task. Personal, emotional reactions to stress, life circumstances, physical health, etc. can play into our confidence and self-efficacy. Thus environmental implications and

the emotional responses they evoke from an individual often affect his or her level of self-confidence. Bandura said, “Because high arousal usually debilitates performance, individuals are more likely to expect success when they are not beset by aversive arousal than if they are tense and viscerally agitated” (Bandura, 1977 p. 198). Furthermore, Asian scholars have suggested that though often we are taught to overcome our circumstances and persevere, thus avoiding anxiety in emotional arousal, a lack of personal infrastructure can lead to frustration. This certainly applies to the world of high school sport and athletic competition, where the students are faced with intimidating opponents or personal challenges, and often subject to performance anxiety. To build confidence, the key is to gain the most success possible within the constraints of the environment without going to the point of failure and frustration (Au, 2007). A coach with high self-efficacy can model the effective managing of emotional arousal in tense scenarios, and can teach his or her players to do the same, thus using states of emotional arousal to render higher self-efficacy among athletes.

The readers can again look at the Biblical events of the David and Goliath Battle found in 1 Samuel 17. Goliath was attempting to draw out one of the Israelites in a winner takes all battle (1 Samuel 17:8 & 9, NIV). His words did create an emotional arousal in the Israelites, but it was one of fear, to all except one. (1 Samuel 17:24, NIV). To combat the fear, Saul, the King of Israel, offered an external emotional arousal of his own. “... The king will give great wealth to the man who kills him (Goliath). He will also give him his daughter in marriage and will exempt his father’s family from taxes in Israel” (1 Samuel 17:25, NIV).

The emotional arousal Goliath and Saul used did help David to gain the courage needed to fight Goliath, but it was not the deciding factor. David’s overwhelming emotional arousal

came from his faith in God. “The Lord who delivered me from the paw of the lion and the paw of the bear will deliver me from the hand of this Philistine” (1 Samuel 17:37, NIV).

Bandura (1997) revealed this research focused on all four of the sources of self-efficacy. All of those influences can be clearly placed into the coaching description; however, many coaches neglect to get past the first construct of mastery. Because of this, it is important to examine specifically the modeling suggested in the second source. Research must consider what a coach’s players are seeing when they watch how the coach reacts to tasks or ultimately, what is the nature of a coach’s vicarious influence on his players, and what effect that coach’s emotional arousal was on self-efficacy. This could be crucial to the success of a program. Also the research investigated if the self-confidence of successful coaches is manifested in the players who are watching them.

Summary

The review of literature was a convergence dynamic, moving from the wide overarching realm of success being initiated from successful leadership, to the personality traits involved with leadership, culminating with a strong focus on the particular trait of self-efficacy/confidence. For this study the terms efficacy and confidence are used with the same meaning. Efficacy is the term practicing psychologists will use to describe the beliefs a person has in their abilities to complete a task in certain situations, where confidence is of the same meaning, just more practical in use for the non-professional psychologist (Feltz et al., 2008).

The researcher began with an overall review of leadership styles and the theories related to the development and effectiveness of the leadership styles. There were a multitude of leadership theories, but this research focused on the theories eluded to by Germain (2012). Those theories were; The Great Man Theory, (Carlyle, 1888) which in simplistic terms states

leaders are born with the inheritable traits needed for leadership. Next was Behavioral Theory. This theory was in contrast to the Great Man Theory in that leadership could be a learned process involving how people reacted to the stimuli they are subjected to. The Situational Theory revealed leaders must adapt their leadership behaviors in conjunction with the readiness and maturity of their followers (Blanchard and Hersey, 1970). Transactional Theory explained how leadership was an exchange process between leaders and followers. Followers will be led because of what the leaders will be able to provide for them, be it payment for services or the removal of the threat of punishment (Burns, 1978). The Transformational Theorist believe in a model of leaders building relationships with the followers and the followers then taking on the mission and values of the leaders (Bass, 1985). Trait Theory was the last theory reviewed. This theory is similar to that of the Great Man Theory in that leaders have specific traits that allow for their emergence. The difference is those traits can be found in all levels of people, not just the elite. Trait Theory was the last reviewed so the convergence of the current study could now focus the review on traits.

Personality traits were reviewed from the inception of naming the particular qualities (Allport and Odbert, 1936), to the terms used by psychologists today. Those terms identifying traits for modern practitioners were openness, conscientious, extroversion, agreeable, and neurotic. Each term was defined and then were integrated into leadership research investigating each traits ability to identify leadership emergence and effectiveness (Judge et al., 2002).

Judge (2002) found extraversion and conscientiousness to be the most reliable traits to predict leadership, but was followed closely by neurotic. Neurotic behaviors were measured in a negative manner evaluating those who actually did not score high in this context. People that did

not score high in neurotic behavior were found to be people having self-confidence (Ciccarelli and White, 2011).

After aspects of self were revealed as a construct related to successful leadership, the main focus was now on the construct of self-confidence. Self-confidence in the psychological realm is known as self-efficacy. The Theory of Self-Efficacy was brought to the forefront in this research. Bandura (1977) introduced self-efficacy as a theory used for the treatment of behavioral changes. Though his work was not directed toward sports, sports psychologists such as Feltz et al. (1999) utilized his work to research the impact of self-efficacy in aspects of athletics. One such aspect was the creation of the Coach Efficacy Scale (CES). The CES was identified as the testing instrument used in this research.

Feltz and colleagues (1999) construction of the CES was based on Banduras' (1977) self-efficacy theory. Domain specific aspects of the CES included a coaches' confidence in their ability to motivate, strategize, teach technique and build character. Bandura (1977) states the sources of these efficacy beliefs are derived from four sources. Those sources are past performances, vicarious experiences, verbal persuasion, and physiological responses. All of the dimensions, motivation, strategies, technique and character, Feltz (1999) revealed are connected to Banduras' (1977) concepts of efficacy sources.

The ability to motivate is defined as "...the ability to affect the psychological skills and states of their athletes" (Feltz et al., 2008 p. 153). This definition relates to Banduras' (1977) sources in multiple ways. Coaches will be able to have efficacy in their ability to motivate based upon past performance they have had with the team they are coaching, or against the team they are playing. Vicarious motivation may be achieved by seeing others have success against opponents. Verbal persuasion relates to the motivation coaches' use through feedback they give

to the athletes related to their performance. Coaches' psychological motivation alters the actual physiological responses of the athlete. They intentionally look to raise the heart rate and anxiety level of athlete's to appropriate levels of readiness (Feltz et al, 2008).

Game strategy is directly linked as a source of self-efficacy through Banduras' (1977) concept of past performance. "Game strategy efficacy was defined as the confidence coaches have in their ability to coach during competition and lead their team to a successful performance" (Feltz et al, 2008 p. 153). The connection is made that a coach is going to have greater efficacy in this area as they gain experience.

The efficacy dimension of teaching technique was defined as "...the belief coaches have in their instructional/diagnostic skills" (Feltz et al., 2008 p. 153). This dimensions' source of efficacy is similar to that of game strategy in that the greatest amount of efficacy will be gained through experience either by playing or coaching.

Feltz final dimension was efficacy in building character within the athletes they coach. The connection to Banduras' sources was revealed when Feltz hypothesized the coaches that had high efficacy in character building would elevate the building of character in the athletes they coach. These players would display positive attitudes and good sporting behaviors. (Feltz et al., 2008). The sporting behaviors eluded to would be persistence to goal attainment, setting of high goals, and how much effort they put into their task (Bandura, 1977). These behaviors are useful in the overcoming of the physiological responses involved with Bandura's fourth source of efficacy.

This review of literature showed the connection between leadership and personality traits. Judge et al. (2002) revealed certain personality traits were predictors of leadership effectiveness. The researcher of this current study evaluated the trait of self-confidence as a causal factor in

winning high school athletic state championships. The methods used for this research follows in chapter three.

CHAPTER THREE

METHODOLOGY

Introduction

This study evaluated coaches in interscholastic coaching when success is measured by wins, moreover, wins at the highest level of interscholastic competition. For this study success was determined to be athletic coaches having won multiple athletic state championships as defined by the Missouri State High School Activities Association (MSHSAA). The overall guiding issue was to determine whether self-confidence /self-efficacy level may be a causal factor of an athletic coach's ability to win multiple athletic state championships.

The participants of the study are described in Chapter Three and details of the research design are presented. The instrument used to measure the four categories of self-confidence is explained and how data are analyzed is presented.

Participants

The participants in this study are public school coaches in the state of Missouri. All coaches were given the opportunity to be participant in the study. The only criteria for participation was to be employed in a public school in Missouri as a head athletic coach. Gender, educational preparation, ethnicity, or tenure as a head coach were not considerations for participation.

Responses were received from 221 male head coaches and sixty-eight female head coaches. Coaches responding had an overall record of wins ranging from 819 to none. Individual coaches had district championships from no championships to twenty-nine, and all coaches responding had a combined total of 716 district championships. Individual coaches had no Missouri state championships to twelve Missouri state championships, and all coaches

responding had a combined total of 120 Missouri state championships. The coaches ranging in school size from Class 1 to Class 6 as defined in the MSHSAA Handbook (MHSAAA, 2014).

Research Design

The potential participants were identified from the database of Missouri public school coaches available on the MSHSAA web site (MHSAAA, 2014). This selection from MSHSAA documented the participants were the state recognized athletic head coaches for their scholastic institutions. The researcher then used the Missouri Coaches Directory to gather contact information (Wade, 2014). All public school head coaches in Missouri were eligible to receive a survey. The request for participation was sent to all athletic directors who have grades nine through twelve athletic coaches. The researcher emailed 312 athletic directors asking them to have their head sports coaches complete the Coaches Efficacy Scale (CES) and return to the researcher via Google Drive. The researcher received survey results for one month after the initial request was sent. The researcher received a total of 298 replies with 289 useable responses. The unusable responses were due to incorrect data entry. The population size was 2,500. For a 95 percent confidence level, 334 responses were necessary and for a 90 percent confidence level a return of 245 was necessary. A sample size of 289 yields a .06 percent chance of error in the results providing a 94 percent confidence level. If a sample size is specified for a population and responses are received from everyone, the data is likely more accurate than utilizing the entire population and getting a small percentage of responses. When surveying a sample of a population, one cannot know if the data is correct, but can state there is a 95 or 90 percent chance the data is within the margin of error. Sample size for this study was calculated using Raosoft software. (<http://www.raosoft.com/samplesize.html> (retrieved Sept. 20, 2014). The researcher did not receive additional responses after the first month and determined based on the

sample size and calculated margin of error for a 96 percent confidence level the results would be valid.

The responses were then disaggregated into two groups; the first group was interscholastic athletic coaches in Missouri having won a minimum of two athletic state championships as defined by MSHSAA. The second group was coaches having not won more than one athletic state championship. Group two had 258 participants and group one had thirty-one participants

The researcher then calculated a MANOVA comparing the two groups in the four categories measured on the Coaching Efficacy Scale (CES). The independent variables were the winning of two or more state athletic championships and the non-winning of two or more state championships. The dependent variables were the four categories of motivation, technique, strategy, and character building.

Feltz and colleagues (1999) used the categories of motivation, technique, strategy, and character development because they related directly back to Bandura's efficacy theory. Motivation is rooted in verbal persuasion. Confidence in teaching technique and the use of game strategy relate to performance experience as well as vicarious experiences. Efficacy in a coach is often the result of the experience they have had. Bandura stated, "Extraordinary personal feats serve as transforming experiences" (Bandura, 2005, p. 308). In short, the experiences you have will shape the efficacy/confidence a coach has, be it either high or low. Confidence in the ability to develop character helps to combat the physical and mental fatigue because they have been coached to overcome obstacles. These considerations led to the development of the Coaching Efficacy Scale (Feltz, et al., 1999).

The Coaching Efficacy Scale (CES) was constructed by Feltz, Chase, Moritz, and Sullivan (1999), with the purpose of developing a reliable and valid instrument to measure the efficacy of a coach. Dr. Feltz has been accommodating throughout this research and has given permission for the use of the Coaching Efficacy Scale for this dissertation.

The two groups were then compared to each other using a *t*-test to determine if there was a significant difference between the groups' levels of confidence at the .05 level for each individual question. The researcher calculated the individual *t*-test to determine if particular characteristics contained within each category may be of value in helping non-winners to become more confident.

Instrumentation

The instrument used in this research was the Coaching Efficacy Scale (CES) developed by Feltz and her colleagues (Appendix A). The CES is a multi-dimensional test battery, investigating four areas of coaching efficacy. The four dimensions Feltz et al. (1999) pointed to were game strategy, motivation, technique and character building.

The test was piloted with the coaches from the Central Ozarks Conference in Southwest Missouri. The athletic directors of the conference administered the test during an on campus coaches' meeting. Results were then collected at the monthly athletic directors' meeting. The purpose of the pilot was to determine understanding of instructions and question analysis.

The participants in the pilot test had no difficulty with the test and all stated they understood the process and instructions. The researcher reviewed the responses and included them in the research design totals.

The reliability of the CES was measured by using the coefficient alpha and test-retest. The test-retest factor was .82 and the coefficient alpha was .95. These tests were administered to

a sample group of four hundred high school coaches with a return rate of 47 percent, yielding a total number of 189 participants. Convergent validity was determined by the second sample of coaches (N=289) who realized a significance factor of $p < .05$, showing a significant relationship between the questions posed in the CES and the measurement of efficacy (Feltz, 1999).

The CES is a twenty-four question test battery that is measured on a scale of zero to nine, with zero being a statement of no confidence and nine being a statement of high confidence. Each question begins with the words “How confident are you in your ability to - ,” and was then followed by the rest of the twenty-four questions (Feltz, Chase, Moritz, & Sullivan, 1999).

Questions 1, 3, 6, 10, 12, 15, & 23 are used to analyze a coach’s efficacy beliefs about how well he believes he can motivate players. Questions 2, 4, 8, 9, 11, 17, & 21 investigate how well a coach believes he or she uses strategy. The third factor involved, technique and how well a coach teaches it, is examined in questions 7, 14, 16, 18, 20, & 22. The final factor of character building is broken down in questions 5, 13, 19, & 24 (Feltz, Short, & Sullivan, 2008).

Data Analysis

The instrument used was the Coaching Efficacy Scale, developed by Feltz, Chase, Moritz, & Sullivan, (1999). The questions are multi-dimensional and look to measure efficacy in four areas. Those areas are motivation, strategy, technique, and character building.

The researcher recorded individual scores for each coach. Those scores were then separated into two groups. Group one was for coaches that have won multiple athletic state championships in the sport they coach, and group two was for those coaches that have not won more than one athletic state championship.

Individual mean scores were calculated for each dimension of the Coaching Efficacy Scale (CES), as well as an overall mean score for the entire test. Scores were calculated

for the two groups being researched and determined if there was significant difference in the dimensions of self-efficacy and the overall scores. To test the null-hypotheses, a Multiple Analysis of Variance (MANOVA) was also applied. The MANOVA analyzed the independent variables groups of coaches multiple championships and non-multiple championships, effect on the dependent variables of motivation, strategy, character building and teaching technique.

The researcher calculated a one-tailed *t*-test for each question at the $p < .05$ level. The individual *t*-test was calculated for each question in an effort to determine if specific characteristics within each category were significantly different. This allowed for the researcher to be more pointed in the direction of the implications on education.

Summary

This research was conducted on athletic coaches that work in Missouri public high schools. The coaches were asked to complete the Coaching Efficacy Scale (Feltz et al., 1999). Data was collected from 289 coaches. The sampling included 221 males and sixty-eight females coaching nineteen different sports, thus giving a good sampling of interscholastic high school athletic coaches throughout the state of Missouri.

The instrument used to collect data was the Coaching Efficacy Scale (CES), which gave the diagnostics of each individual coaches' beliefs on their confidence to motivate their players, teach them technique, utilize proper game strategy, and build character. The scores were then grouped into two groups of coaches. Group one were coaches having won multiple state championships ($n=31$) and group two were coaches not having multiple state championships ($n=258$). The data was given statistical treatments for confidence levels in the four dimensions associated with the CES through a MANOVA, and each individual question was given a *t*-test. Results will be discussed in chapter four.

CHAPTER FOUR

RESULTS

Introduction

Data for this study was collected to investigate a possible causal relationship between a coach's confidence level and winning multiple athletic state championships. Information resulting from this study may be a tool school administrators' use in the process of hiring coaches for their schools. Further implication and reasoning could also allow for these results to help in guiding other certified human resource decisions.

The researcher used information collected from the Coaching Efficacy Scale (CES) with permission from Deborah Feltz (1999). The test is a twenty-four question battery used to measure the confidence level a coach may have. The CES measures confidence in four areas. The confidence areas measured were in motivation of athletes, game strategy, and ability to teach technique, and build character in the athletes with whom coaches work.

The state of Missouri was used for the testing model and data was collected from all nine Regional Professional Development Center areas. Athletic coaches from nineteen Missouri State High School Activities Association (MSHSAA) sports completed the survey.

The information obtained from the survey was tested for significance by two different methods. The first was a multiple analysis of variance (MANOVA) which was applied to the four dimensions. A multiple analysis of variance is a statistical process used when two or more independent variables are present and multiple dependent variables are included. The researcher had two independent variables, multiple winners' confidence level and non-multiple winners' confidence level. The researcher wanted to compare the confidence level of the two variables in four areas utilizing the responses from the Coaching Efficacy Scale (CES) of Feltz (1999). The four areas were motivation, strategy, teaching technique and character development.

A *t*-test for was calculated for each question. The researcher sought to determine if individual questions had significant differences in an attempt to isolate particular areas of improvement for non-winners. Professional development may be obtained to increase confidence. The *t*-test was not use to test the null hypotheses.

Results

The researcher conducted a causal comparative investigation to determine if confidence levels might be a causal factor for winning multiple athletic state championships. Feltz (1999) was the creator of the Coaching Efficacy Scale (CES), used to measure the level of an athletic coach's self-confidence. Permission for the use of the (CES) was obtained from Dr. Deborah Feltz. Participants were placed into two groups. Those who had won multiple athletic state championships are defined by the researcher as two or more (Multiple) and those who had not won multiple state athletic championships (Fewer than two).

The CES is multi-dimensional, encompassing four constructs. Each individual question had a *t*-test with the idea that each construct could be further diagnosed at a more meaningful level. This allowed for the researcher to be more pointed in the direction of the implications on education.

The MANOVA analyzed the independent variables groups of coaches multiple championships and non-multiple championships, effect on the dependent variables of motivation, strategy, character building and teaching technique.

The results used the Wilks Lambda significance level at .032, which is less than the .05 level and is expressed in Table I. For educational research $p < .10$ was used.

Table I:

Means, Standard Deviations and One –Way Multiple Analyses Of Variance for the Effects of Multiple and Non-Multiple Winners of Missouri State Championships on Four Dependent Variables

Variable	<u>Multiple</u>		<u>Non-Multiple</u>		F	p
	M	SD	M	SD		
Motivation	47.93	4.34	44.88	5.80	8.04	.005
Technique	48.61	2.77	46.68	5.72	3.44	.07
Strategy	56.42	4.21	53.44	6.94	5.47	.02
Character	33.13	2.54	32.16	3.85	1.85	.18 (ns)

The results indicate there is a significant difference in the confidence level of the motivation, teaching technique and strategy. The group of multiple winning coaches had a positive factor in their confidence levels, with the most impacting confidence level being that of motivation.

The implications of the MANOVA suggested confidence in ability to build character indicated no significant difference between coaches winning multiple athletic state championships and coaches not having won multiple state championships. The results did indicate a significant difference in three constructs of confidence. Those dimensions were in the confidence in ability to teach technique, use strategy, and motivate players. Three constructs indicated a significant difference; therefore the researcher rejects the null-hypothesis for H₁, H₂, and H₃, but fails to reject the null-hypothesis for H₄.

Table II:

Means, Standard Deviations and Calculated *t*-Test Probability Level for Significance Differences Between Multiple and Non-Multiple Winners of Missouri State Championships on each question of the Coaching Efficacy Scale

Questions	<u>Multiple</u>		<u>Non-Multiple</u>		<i>p</i>
	M	SD	M	SD	
How confident are you in your ability to...					
1. Maintain confidence in your athletes?	7.84	.78	7.35	1.16	.001
2. Recognize opposing team's strengths during competition?	8.00	.63	7.69	1.17	.011
3. Mentally prepare athletes for game/meet strategies?	8.19	.98	7.39	1.14	.000
4. Understand competitive strategies?	8.1	.91	7.79	1.15	.046
5. Instill an attitude of good moral character?	8.23	.85	8.02	1.12	.110*
6. Build the self-esteem of your athletes?	7.81	.79	7.60	1.16	.100*
7. Demonstrate the skills of your sport?	8.03	.91	7.85	1.26	.160*
8. Adapt to different game/meet situations?	8.23	.76	7.52	1.17	.000
9. Recognize opposing team's weakness during competition?	7.93	.89	7.61	1.23	.035
10. Motivate your athletes?	8.03	.95	7.60	1.18	.012
11. Make critical decisions during competition?	7.97	.91	7.58	1.13	.019
12. Build team cohesion?	7.84	.90	7.36	1.16	.005

13. Instill an attitude of fair play among your athletes?	8.26	.68	7.87	1.19	.004
14. Coach individual athletes on technique?	8.00	.68	7.76	1.16	.046
15. Build the self-confidence of your athletes?	7.90	.83	7.57	1.08	.025
16. Develop athletes' abilities?	8.07	.57	7.61	1.10	.000
17. Maximize your team's strengths during competition?	8.13	.89	7.63	1.11	.003
18. Recognize talent in athletes?	8.26	.63	7.93	1.04	.007
19. Promote good sportsmanship?	8.26	.89	8.16	1.01	.290*
20. Detect skill errors?	8.03	.71	7.55	1.16	.001
21. Adjust your game/meet strategy to fit your team's talent?	8.07	.73	7.62	1.14	.002
22. Teach the skills of your sport?	8.23	.67	7.98	1.09	.041
23. Build team confidence?	8.13	.81	7.62	1.08	.001
24. Instill an attitude of respect for others?	8.39	.72	8.12	1.02	.033

An asterisk * denotes a *t* value too high for a significance to be reported

Results shown in Table I reveal a significant difference at a .05 level or greater in twenty of the twenty-four questions. The questions that did not show a significant difference were:

1. Question 5: How confident are you in your ability to instill an attitude of good moral character?
2. Question 6: How confident are you in your ability to build the self-esteem of your athletes?

3. Question 7: How confident are you in your ability to demonstrate the skills of your sport?
4. Question 19: How confident are you in your ability to promote good sportsmanship?

Question 6 was related to motivation of the athletes and question 7 involved confidence in teaching technique. Both questions 5 and 19 were in the area of character development. This information and the MANOVA results could indicate that building character was not important to winning multiple championships, but a closer analysis of the data reveals coaches in both groups are confident in building character.

The researcher recognized two of the four questions addressing confidence in building character did not show a significant difference; however, confidence in building character was the highest scoring dimension and had the lowest standard deviation. This may indicate not only was confidence in building character important to multiple championship coaches, but also it was a level of high confidence in all coaches tested.

An analysis of the standard deviations in tables I and II indicates coaches from the multiple championships group recorded scores similar to that of others within their group. Those coaches on an average responded in a manner showing less than a level away from each other. The mean standard deviation for the multiple athletic championship respondents was .79. Coaches from the non-multiple groups were similar as well in their reporting but not as close as in the multiple group. Their mean standard deviation was 1.13. This indicated the coaches from the multiple group not only scored higher on the CES scale, but also as a whole did not deviate in their response as much as the non-multiple group.

Null Hypothesis

H₁- The self-efficacy level of coaches with multiple athletic state championships is not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of motivation.

H₂- The self-efficacy level of coaches with multiple athletic state championships is not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of technique.

H₃- The self-efficacy level of coaches with multiple athletic state championships is not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of strategy.

H₄- The self-efficacy level of coaches with multiple athletic state championships is not significantly different from coaches who have not won multiple athletic state championships as measured on the Coaching Efficacy Scale in the category of character development.

The basis for the research was analyzing the construct of self-confidence as a causal factor for success in interscholastic high school athletic coaching. The researcher separated the dimensions of coaching self-confidence. Three of the four dimensions tested led to the rejection of the null-hypothesis. Those dimensions were, confidence in the ability to motivate, teach technique, and use of strategy.

One dimension did not show a significant difference. The dimension of character development did not show a significant difference, derived from the data presented from the CES scale. The data revealed scores in the confidence to build character was high in both groups. The mean score for coaches in the multiple group was 8.28 as opposed to the non-multiple group mean score of 8.04. All coaches surveyed had a very high confidence level in building character.

Summary

The data collected from 289 interscholastic high school coaches was used to perform two statistical analyses searching to evaluate self-confidence as a causal factor for winning multiple athletic state championships. The first testing procedure applied was a MANOVA, with the independent variables being athletic coaches winning multiple state championships (n=31) and coaches not having won multiple state championship (n=258). The dependent variables were four dimensions of coaching confidence identified by Feltz et al. (1999) as confidence in the ability to motivate players, teach technique, utilize game strategy, and build character.

Results of the MANOVA revealed a significant difference in three of the four dependent variables at a .10 level. The strongest level of significance was found in the in the dimension of motivation (p=.005), followed by strategy (p=.02), and lastly technique (p=.07). Building character did not meet the significant difference of .10 used for educational research, thus allowing for the researcher to reject three of the four null-hypothesis.

Next, *t*-tests were performed on each individual question comprised in the CES. The results of this statistical analysis showed twenty of the twenty-four question to have significant difference at the .05 level in the two groups. The conclusions, findings and recommendations resulting from the statistical analysis will be discussed in chapter five.

CHAPTER FIVE

CONCLUSIONS, FINDINGS and RECOMMENDATIONS

Introduction

In the athletic coaching profession, in association with public education, there are outliers who have had more success than their peers. Though success can be measured in more ways than wins and losses, the focus of this research did define success in a measurement of wins. Particularly, winning multiple athletic state championships was the determining factor for a successful coach.

The researcher conducted the study to gain a greater understanding of why some athletic coaches have been able to create and sustain successful programs. The contention was some athletic coaches have a greater level of self-confidence, and self-confidence is a casual factor between the personality trait of self-confidence and success in the athletic coaching arena. The researcher determined a causal relationship was found and the data collected could lead to the use of another tool in the recruitment of teachers/coaches in the public schools.

Summary of Methods

To test if self-confidence has a significant effect on winning athletic state championships, two sets of coaches had to be defined. Group one, known as multiple, were coaches who had won two or more athletic state championships. Group two, labeled as non-multiple were coaches who had not won at least two athletic state championships. All of the coaches involved with this study were coaches of athletic teams from public high schools in the state of Missouri.

Contact information about the coaches was obtained from the Missouri State High School Athletic Association (MSHSAA). This is a public site and lists the e-mail addresses for all athletic directors in Missouri. An e-mail was sent to all public school athletic directors asking

them to have their coaches complete an attached twenty-four question efficiency scale. From that e-mail, 289 coaches were able to participate in the study. The multiple group number was thirty-one, and the non-multiple group number was 258.

The survey used to determine the level of self-confidence was the Coaching Efficiency Scale (Feltz, 1999). The CES evaluated the coach's self-confidence in coaching four ways. The first dimension was confidence in ability to motivate the players. Next was confidence in ability to teach technique. The third dimension was confidence in ability to use strategy, and lastly confidence in ability to build character.

The data was calculated using a MANOVA to determine the significance levels of the four dimensions of confidence measured by the Coaching Efficiency Scale. The researcher then calculated a *t*-test of each question to determine if specific questions might reveal additional meaningful differences.

Summary of Findings

The results of this study revealed a number of implications for the researcher to analyze. Much of the data indicated self-confidence level may be a causal factor for high school athletic coaching success. However, some of the information was not as favorable, as seen in tables I and II in chapter four.

MANOVA Findings

A multiple analysis of variance MANOVA was applied to the retrieved data. The MANOVA indicated a significant difference in confidence to motivate the players, (.005), in the confidence to use strategy, (.02), and in confidence to teach technique, (.07). Significant difference was not found in the confidence to build character, (.18). Results from the MANOVA showed only three of the four dimensions with a significant difference. From the data presented

the researcher rejects the null-hypothesis for H₁, H₂, and H₃, but failed to reject the null-hypothesis for H₄.

There was a significant difference between the two groups studied in three of the four dimensions of coaching. An analysis of the data from Table I would lead the researcher to conclude the dimension of confidence in ability to build character did not have a significant difference.

Individual Questions t-test

Of the twenty-four questions surveyed, twenty revealed a significant difference. Two of the four questions that did not have a significant difference at the .05 level were in the dimension of confidence in the ability to build character. The data revealed the cause for this was not related to a lack of self confidence in the dimension, but rather both groups felt very confident in their ability to build character in their players.

Limitations of Study

This study involved only coaches in the state of Missouri and those coaches having won a minimum of two athletic state championships as identified by the Missouri State High School Activities Association (MSHSAA). Only coaches from public schools were used in this study.

Recommendations for Future Research

Future research from this study could involve two demographics collected in the research, but not used. This information was not used in the research because the research was looking for a causal relationship between all athletic coach's confidence and success. This data was collected predicting future studies may involve these demographics. These two demographics were gender and the number of district championships won.

The data collected on gender could be used to evaluate the aspect of confidence in male coaches in relationship to female coaches. Possible research questions could include the following: Do women or men of successful interscholastic high school athletic programs have more confidence? Is there a correlation between gender and the confidence levels of men and women of successful athletic programs?

State championships are a lofty standard to set as a descriptor of a successful program. This study could also be replicated with respect to the number of district championships won.

Beyond the demographics collected this study could be used to propel a longitudinal study to analyze the confidence of coaches as they mature into veteran coaches. This could help answer the question: Does the confidence come before or after the winning? Another longitudinal study of interest would include analyzing the data presented to find coaches who had not won multiple state athletic championships but did have confidence levels like those who had; and second, if they have attained that level of success in the future. If they do attain those levels, a confidence inventory could be used as a predictor of success.

The last recommendation to be made would be to use this data to see if coaches with high confidence levels choose to utilize their leadership abilities in other arenas. These arenas could be in the church, politics, or moving on to educational administration.

Implications for Practice

The data yielded from this research indicates the use of a self-confidence scale would be beneficial for athletic, building and central office administrators. A scale used to determine the self-confidence has a significant difference in the dimensions of motivation and strategy used according to the MANOVA. The *t*-test indicated all questions had significant differences except three relating to the character dimension may have a causal effect on the success of an athletic

program. School administrators should utilize a scale to identify a candidate with appropriate levels of high self-confidence. The scale construction should follow the process identified by Bandura (2006), and analyze the confidence a candidate has in the area they will be working in.

Athletic directors may use this data to analyze the coaches they are hiring to lead the athletic programs at the represented schools. Data would indicate both the emergence and effectiveness of the coaches leading the programs. Dimensions to scrutinize closely would be those revealing high self-confidence in ability to motivate and use strategy. Individual questions that indicated significant difference as indicated by the $p < .007$ were confidence in their ability to do the following:

Maintain confidence in your athletes.

Mentally prepare athletes for game/meet strategies.

Adapt to different game/meet situations.

Build team cohesion.

Instill an attitude of fair play among your athletes.

Develop athletes' abilities.

Maximize your team's strengths during competition.

Recognize talent in athletes.

Detect skill errors.

Adjust your game/meet strategy to fit your team's talent.

Build team confidence.

The researcher recommends athletic directors gauge these aspects of confidence when evaluating the coaches, and utilize this information while planning professional development.

Athletic directors should utilize the CES when evaluating the aspects related to self-confidence, but should also create sport specific scales to further delve into the particulars of each sport.

The dimension of self-confidence in the ability to build character did not show a significant difference between the two groups, but the researcher recommends this dimensions should not be ignored. Analysis of the data indicates these aspects did not show a low self-confidence by either group, but rather both groups were high in self-confidence, and should always be considered when decisions are made. All coaches need to have a consistent, data driven, character development plan within their program.

Building principals may use this research when building teams within the school. The data allows for the principal to pair or team groups of teachers with individuals who have high self-confidence. The concept of mentoring as used in the school may be utilized with the intentions of cultivating the self-confidence of other teachers.

Central office administration may use this research as one of the tools used to drive professional development. As presented in the review of literature, a successful coach is the by-product of successful leadership. The research could be used to deduce the emergence and effectiveness of an athletic coach and could be transposed into other activity coaches and classroom teachers. Though further research may be required, the researcher would contend this data could also be used to indicate the emergence of school leadership.

Summary

The research presented attempted to identify self-efficacy/confidence as a causal factor for athletic coaches and their ability to win multiple state championships in the athletic arena. The methods used to test the null-hypothesis involved asking high school athletic directors throughout the state of Missouri to have the head athletic coaches they supervise complete the

Coaching Efficacy Scale (Fetlz et al., 1999). From the request 289 usable questionnaires were collected. The data was divided into two groups. The first group included coaches having won multiple athletic state championships (n=31), and those not having won multiple athletic state championships made up group two (n=258). A MANOVA was conducted on the data from each group as well as a *t*-test on each individual question, searching for a significant difference between the two groups and self-confidence levels.

The results of the MANOVA allowed the researcher to reject the null-hypothesis in the dimensions relating to confidence to motivate, use strategy, and teach technique. The null-hypothesis of the confidence in ability to build character was accepted. Individual t-test showed a significant difference between the two groups in twenty of the twenty-four questions.

Further research can be conducted relating to this study. Though winning state championships is a goal of athletic teams, the probability of accomplishing this task is a 1.5 percent chance (MSHSAA), so another measure of evaluating success could be in the research into district champions. Also, the implications of confidence may be useful in the analysis of gender differences. Another study could be a follow up longitudinal study to see if coaches having confidence levels similar to those coaches that have won multiple state championship will in time reach the same level of winning. This could certainly indicate the CES as predictor of the emergence of a successful coach. Lastly, research involving confidence and how it will predict the future emergence of leadership in education administration or other upper level management positions could further the productivity of this research.

The recommendations are listed as:

1. Construction of a self-efficacy/confidence questionnaire to be used in the interviewing of prospective teachers/coaches.

2. Use of the CES by athletic directors to drive hiring and professional development.
3. Building leaders use of efficacy/confidence scales while determining teacher/mentor teaming, and student/teacher placement.
4. Central office use of efficacy/confidence scales to use as an indicator of professional development needs, and to predict the emergence of future administrators.

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Appendix A

Coaching Confidence

This research will be conducted on coaches that have won a minimum of two state championships in the State of Missouri, and coaches that have not won a state championship. The researcher is using a standard of two state championships to show the consistency of coaching success. When looking at success by winning championships, the researcher can differentiate between the two groups because the second group being tested will have not won any state championships. The researcher will administer the Coaching Efficacy Scale (CES) to each participant. The CES was constructed by Feltz et al (1999), with the purpose of developing a reliable and valid instrument with which to measure the efficacy of a coach. The two groups will then be compared to each other using a t-test to determine if there is a significant difference between the groups and their respective levels of confidence at the .05 level.

See the next page for the scale

Coaching Efficacy Scale

Name _____

School(s) _____

Sport _____

Male or Female _____

Overall Head Coaching Record _____

Number of District Championships (As a Head Coach) _____

Number of State Championships (As a Head Coach) _____

Coaching confidence refers to the extent to which coaches believe that they have the capacity to affect the learning and performance of their athletes. Think about how confident you are as a coach. Rate your confidence for each of the items by circling a number provided below.

Not at all confident → → → → extremely confident

How confident are you in your ability to...

- | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Maintain confidence in your athletes? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2. | Recognize opposing team's strengths during competition? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3. | Mentally prepare athletes for game/meet strategies? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4. | Understand competitive strategies? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5. | Instill an attitude of good moral character? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6. | Build the self-esteem of your athletes? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7. | Demonstrate the skills of your sport? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 8. | Adapt to different game/meet situations? | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

9.	Recognize opposing team's weakness during competition?	0	1	2	3	4	5	6	7	8	9
10.	Motivate your athletes?	0	1	2	3	4	5	6	7	8	9
11.	Make critical decisions during competition?	0	1	2	3	4	5	6	7	8	9
12.	Build team cohesion?	0	1	2	3	4	5	6	7	8	9
13.	Instill an attitude of fair play among your athletes?	0	1	2	3	4	5	6	7	8	9
14.	Coach individual athletes on technique?	0	1	2	3	4	5	6	7	8	9
15.	Build the self-confidence of your athletes?	0	1	2	3	4	5	6	7	8	9
16.	Develop athletes' abilities?	0	1	2	3	4	5	6	7	8	9
17.	Maximize your team's strengths during competition?	0	1	2	3	4	5	6	7	8	9
18.	Recognize talent in athletes?	0	1	2	3	4	5	6	7	8	9
19.	Promote good sportsmanship?	0	1	2	3	4	5	6	7	8	9
20.	Detect skill errors?	0	1	2	3	4	5	6	7	8	9
21.	Adjust your game/meet strategy to fit your team's talent?	0	1	2	3	4	5	6	7	8	9
22.	Teach the skills of your sport?	0	1	2	3	4	5	6	7	8	9
23.	Build team confidence?	0	1	2	3	4	5	6	7	8	9
24.	Instill an attitude of respect for others?	0	1	2	3	4	5	6	7	8	9

(D. Feltz, S. Short, & P. Sullivan, 2008).