THE IMPACT OF CONATION ON TEAM EFFECTIVENESS

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ABSTRACT

The purpose of this study was to examine the effect individual conation has on team effectiveness. A historical perspective was established detailing the transition from the factory model of teaching in isolation to the present day accountability movement and the establishment of the No Child Left Behind Act as well as the widespread implementation of Professional Learning Communities. Particular attention was paid to the collaborative culture of Professional Learning Communities and the use of teams in meeting objectives.

In this study, the Kolbe A index was administered to participants in order to measure conation. The Kolbe A index is comprised of questions formulated to determine an individual’s instinctive initiating action mode. An individual may initiate in four possible action modes: Fact Finder, Follow Through, Quick Start, and Implementor. Participants were then placed into either balanced or unbalanced teams. Balanced teams consisted of members with three or more of the action modes and unbalanced consisted of two or less. Participants completed team building activities centered around efficiency, task completion, and level of performance in order to determine team effectiveness.

The results of these team activities were compared to the conative makeup of the team in order to determine if a balanced team is more effective than an unbalanced team.

Six conatively balanced teams and seven conatively unbalanced teams completed the activities. The quantitative findings for conatively balanced teams did not differ
significantly from conatively unbalanced teams. Research question one did not show a significant advantage for conatively balanced teams in terms of task efficiency. Research question two did not show a significant advantage for conatively balanced teams in terms of successful completion of a task. Research question three did not show a significant advantage for conatively balanced teams in terms of level of performance.

The qualitative findings of research question four did suggest that team member perception was impacted by placement on a conatively balanced team. Conatively balanced team members reported through questionnaires that they experienced positive communication, complimentary skills, and positive group interactions more often than conatively unbalanced team members. This is an observation that warrants further investigation.
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"Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has." This quote from Margaret Mead (1964) illustrated the perseverance a group of people working together toward a common goal can have. Now, more than ever, the concept of a team of individuals working toward a common purpose is being embraced in K-12 education.

The idea of public education in America was endorsed by prominent leaders such as Thomas Jefferson, Noah Webster, and George Washington, but it was not until the 1840s and 1850s that there was a real, concerted effort. America was for the most part an agrarian society as was reflected in the schools. Schools were comprised of the one room school house with one teacher and various aged students all taught together. This was the primary structure of schools throughout the 19th century.

Since the end of the 19th century, when America was in the midst of the industrial revolution, education underwent a transformation. A shift from the one room school house to an approach based on the factory model was took place. In the factory model, schools were likened to assembly lines with students as the product that was passed down the line from year to year. This view of education dominated American schools for more than a century. For years, teachers worked in isolation with little to no contact with their peers as they prepared their product to be passed down the line to the next worker. Collaboration and cooperation were not encouraged and rarely happened.
Then came the No Child Left Behind Act, which ushered in a new era of accountability for public schools. Schools were required to raise achievement scores on standardized tests or face sanctions. School leaders, namely principals, were left with the daunting task of changing the way schools had been run for decades in an effort to raise achievement. As Yukl (2006) stated, “Influence is the essence of leadership” (p. 145), and principals looked for a way to influence their followers to increase test scores.

Some principals tried authoritarian approaches to leadership. According to Schlecty (2000), “Weak leaders must use the power of their office (that is, they must use authority) because they do not have the capacity to get action from others by any other means” (pp. 183-184). Other principals relied on their own charisma to lead. What began to come to light was the fact that no one person can institute change alone. Gardner (2000) argued, “No individual has all the skills—and certainly not the time—to carry out all the complex tasks of contemporary leadership” (p. 12). Additionally, Gardner stated “The issues are too technical and the pace of change too swift to expect that a leader, no matter how gifted, will be able to solve personally the major problems facing the system over which he or she presides” (p. 12).

Educators soon began to realize what the rest of the world had already come to know. As the education system began to change to embrace new and innovative ideas, it became evident that a team of people with a common goal was the only way to achieve the kinds of change they were seeking. Richard DuFour, a leader in the area of school improvement, developed the concept of Professional Learning Communities in which schools embraced the concept of a collaborative approach to teaching. Principals began to share leadership and adopt a distributed leadership perspective.
This shift away from working in isolation to working in collaborative teams has been a change in the philosophy and approach to education. Teams were typically organized based on content area or grade level, but little concern had been given to the dynamics of the individuals on these teams. Many leadership books and seminars point out the importance of “getting the right people on the bus.” Collins (2001) stated that the concept is not just about assembling the right team, it is about getting the right people on the bus and the wrong people off before you figure out where to drive it.

So, who are the right people to have on the bus? Katzenbach and Smith (1993) suggested that one of the most important characteristics of a team is a common purpose. They also argued the importance of a common set of specific performance goals as well as a commonly agreed upon working approach. Both are vital to the success of a team. Many studies have been done concerning the impact that these traits have on a team.

An area which has not been extensively studied is the balance of skills between team members. Katzenbach and Smith (1993) noted complementary skills as being important to team effectiveness and success. Kolbe (2004b) has done extensive studies on the impact a person’s conation or instinctual way of acting has on their interaction with others. The purpose of this study is to determine if there is a benefit to teams when members are selected based on their conation. Teams with a balanced group based on conation will be given tasks and compared with teams who are not conatively balanced who complete the same task.

Conceptual Underpinnings for the Study

As the 19th century came to a close, America was moving from an agrarian economy to an industrial one. The nation’s educational structure followed suit and was
transformed from the one room school house to a system modeled after mass production and the assembly line. Van Duzer (2006) stated that “the shift was an example of how business models are sometimes applied to education” (p. 10). The factory model has remained the predominant model of education in America since the end of the 19th century. The focus changed from homogeneous efficiency to the individual and the current economic swing towards information and technology, a shift took place, causing a change in the way schools are being run.

The No Child Left Behind Act has been causing educators to rethink how schools are being operated. The use of teams in education in the areas of special education and administration are fairly standard, but collaborative teams of teachers is a new concept that is taking hold through the professional learning communities model. “If schools are to be significantly more effective, they must break from the industrial model upon which they were created and embrace a new model that enables them to function as learning organizations” (DuFour & Eaker, 1998, p. 15). The professional learning community model does just that. It is a model that emphasizes relationships, shared ideals, and a strong culture. DuFour and Eaker described six characteristics of professional learning communities, namely a shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and a results orientation.

One important characteristic of a Professional Learning Community school is the use of collaborative teams. DuFour, Eaker, and DuFour (2005) argued that “the powerful collaboration that characterizes professional learning communities is a systematic process in which teachers work together to analyze and improve their classroom practice” (p. 36).
Collaborative teams can be arranged in many configurations. DuFour and Eaker (1998) suggested teams be formed according to grade level, shared students, subject area, or professional development area. These teams are responsible for everything from identifying curriculum outcomes to planning and presenting staff development programs. The purpose of a team such as this is to ensure that student learning is taking place.

“Despite compelling evidence indicating that working collaboratively represents the best practice, many teachers in many schools continue to work in isolation” (DuFour et al., 2005, p. 36). This represents a problem with the leadership of the school. Principals who use authoritative leadership or transactional leadership do not promote the professional learning community model or the use of collaborative teams. A distributed leadership perspective is necessary to establish a collaborative culture in a school (Spillane, 2005). This distributed leadership perspective defines leadership as a shared process of enhancing the capability of people to accomplish collective work more effectively.

In distributed leadership, the leadership actions of any individual leader are much less important than the collective leadership provided by members of the organization (Yukl, 2006). Spillane (2005) defined distributed leadership as more than the mere distribution of tasks, but an interactive web of leaders and followers who periodically change roles as the situation warrants. In this way, it can be seen that Spillane emphasized the importance of leadership practice. He stated, “A distributed perspective frames leadership practice in a particular way; leadership practice is viewed as a product of the interactions of school leaders, followers, and their situation” (p. 144).
Effective teams are vital to professional learning communities as well as distributed leadership; however it is important to define what a team is. Yukl (2006) defined a team as “a small task group in which the members have a common purpose, interdependent roles, and complementary skills” (p. 319). This definition is expanded upon by Katzenbach and Smith (2003) who defined a team as “a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable” (p. 45).

The effectiveness of a team can be determined by whether or not it meets its goals; however, a number of factors make that possible. Lencioni (2002) suggested two common problems that befall teams: “First, genuine teamwork in most organizations remains as elusive as it has ever been. Second, organizations fail to achieve teamwork because they fall prey to five natural but dangerous pitfalls…” (p. 187). These five dysfunctions are separate but interrelated. Lencioni has argued that susceptibility to even one of them is potentially lethal to the success of a team.

According to Lencioni (2002), the five areas that must be avoided in order to be a successful team are absence of trust, fear of conflict, lack of commitment, avoidance of accountability, and inattention to results. Furthermore, Katzenbach and Smith (2003) added that teams brought together complementary skills and experiences, they jointly developed clear goals, they provided a unique social aspect to the work, and teams simply had more fun. Kolbe (2004) stated that “for a team to be effective, the members must recognize the importance of interdependence and understand the nature of one another’s instinctive needs and contributions” (p. 143). It is conation that describes the instinctive will a person demonstrates.
Psychology has conventionally held the belief that the mind is made up of three distinct mechanisms: cognitive, affective, and conative (Tallon, 1997). Cognitive processes are defined by the Merriam-Webster dictionary as involving conscious intellectual activity. This refers to the ability “to think” and “to know.” Affective processes are defined as relating to, arising from, or influencing feelings or emotions. This is the ability “to feel.” Conative processes are defined as an inclination or instinct. This is the ability “to act.” Schur (1987) defined conation as the area of one’s active mentality that has to do with desire, volition, and striving.

Kolbe (1997) suggested that conation is found in everyone, and that there are four action modes that all people exhibit. The intensity of each action mode is measured by taking an inventory called the Kolbe Index. The action modes are Fact Finder, Follow Through, Quick Start, and Implementor.

Kolbe (1997) noted that a Fact Finder action mode is defined by the instinct to probe. An individual who has been identified as a Fact Finder will attack a problem by gathering more information. A Fact Finder will seek to learn more about a task and its parameters through research and questioning.

Someone who initiates in the Follow Through mode is methodical and systematic. A Follow Through has an intense need for order and efficiency. Kolbe (2004a) described the Follow Through action mode as someone who uses the instinct to pattern.

A Quick Start provides intuition and a sense of vision. These individuals tend to work through improvisation and innovation to achieve stability. Quick Starts force change and disruption because they prefer to work in crisis mode.
A person acting in the Implementor mode is hands-on and prefers dealing with tangibles. Kolbe (1997) argued that Implementors work through the instinct to demonstrate and they initiate solutions by using tools and implements.

Figure 1, below, is an example of Kolbe A results. Action modes are listed and color coded while numbers indicate the operating zones.

**Figure 1.** Printout of individual Kolbe report

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Within these four action modes are three operating zones. Everyone has all four action modes, but the operating zones indicate the perspective through which a person will naturally use their action mode (Kolbe, 2004b). From the Kolbe A Index individuals
are given a score between one and nine. This score forms a continuum indicating the propensity an individual has for each action mode. The higher the score, the more probable that action mode is their instinctive preference.

Team building initiatives stimulate problem solving tasks designed to help group members develop their capacity to work effectively together. These activities are goal oriented and typically physical in nature. Some of the benefits of using team building initiatives are they improve morale and leadership skills, they break down the barriers that thwart creativity, and they set a model for clearly defining objectives and goals. This study will use team building initiatives as a means to determine the effectiveness of a team.

From teaching in isolation through the factory model to the collaborative teams of the professional communities model, the approach to teaming in K-12 education has undergone many changes. This study will attempt to determine the effect of conation on team effectiveness through the use of conatively balanced teams and conatively unbalanced teams. Teams with members who have balanced or diverse conative action modes will be given team building initiatives to complete. The outcome of those initiatives will be compared to those completed by teams with members who have similar or unbalanced conative action modes. From that data a determination will be made to which conative make-up is more effective, teams with a balanced conation or teams with unbalanced conation.

Statement of the Problem

In the late 19th and early 20th century, schools were organized after a factory model in which children were considered to be the raw material that teachers shaped and
molded to meet the various demands of life. Teachers conducted this work in relative isolation, and from year to year they would move their “products” closer to the end of the assembly line. Schmoker (2004) argued that the implications of this isolation were quite clear: “differences in teaching did not matter much; outcomes were irrelevant” (p. 139).

The No Child Left Behind Act or NCLB dramatically changed the way K-12 education is conducted. NCLB was created to close the achievement gap through the increased accountability of schools. K-12 education was mandated to become more effective. Schools that do not meet proficiency standards must improve or face sanctions and penalties.

To become more effective, K-12 educators had to rethink the factory model approach to teaching, and it was necessary to improve the quality of teachers and administrators. This has required a move away from teaching in isolation to an approach focused on learning through collaboration and teamwork. While evidence of the success of collaborative teaming has been established in the private sector, K-12 education has been slow to embrace the trend. Schmoker (2004) stated that “other professions understand that collective efforts to improve, sharpen, and refine one’s professional practices have a profound and palpable impact on quality and improvement” (p. 140).

Currently, the concept of professional learning communities has been implemented in many K-12 school districts. One of the primary constructs of professional learning communities is the collaborative team. Pinchot and Pinchot (1993) argued that teams are “the basic building block of the intelligent organization” (p. 66) and Dilworth (1995) stated that they are the “essence of a learning organization” (p. 252). Senge, Ross, Smith, Roberts, & Kleiner, (1994) contended that “history has brought us to a moment
where teams are recognized as a critical component in every enterprise – the predominant unit for decision making and getting things done” (p. 354).

Teams are now being used, but are they being used effectively? Katzenbach and Smith (2003) suggested that one of the deciding factors of team effectiveness is based on the complementary skills of the members. Furthermore, Kolbe (2004b) described synergy as a productive balance of instincts within a team that is derived from a mixture of complementary conative talents. The problem is that there is a lack of research on the use of conatively balanced teams within the K-12 educational setting. Additionally, there is inconclusive evidence to support the relationship between conatively balanced teams and team efficiency, team success, or performance level.

*Purpose of the Study*

The implementation of professional learning teams in K-12 education is a relatively new concept. One of the major components of professional learning communities is the use of collaborative teams to enhance learning and improve instruction. DuFour and Eaker (1998) suggested that “people who engage in collaborative team learning are able to learn from one another, thus creating momentum to fuel continued improvement” (p. 27).

Collaborative teams are typically formed based on content area or grade level with little thought given to the cohesiveness of the individuals or the complementary skills that are needed in order to be effective and successful. Kolbe (2004b) suggested that “conative diversity provides the multiplier effect that converts the otherwise limited energy of independent contributors into vastly magnified productivity” (p. 142). It is not
known if a collaborative team that is conatively balanced will be more effective than a collaborative team that is unbalanced.

The purpose of this study is to enhance the knowledge of the use of collaborative teams in the K-12 educational setting and, more specifically, the impact of balancing those teams based on the conative style of the team members. This study will determine if a relationship exists between teams that are conatively balanced and those that are conatively unbalanced in terms of their efficiency or ability to complete a task in a timely manner, their capacity to complete a task successfully, and the level of performance exhibited while completing the task.

Research Questions

The primary research questions are as follows:

1. Is there a difference between balanced and unbalanced teams in terms of their efficiency?
2. Is there a difference between balanced and unbalanced teams in terms of their successful completion of a task?
3. Is there a difference between balanced and unbalanced teams in terms of their level of performance?
4. What are the experiences of teachers when working in balanced and unbalanced teams?

Limitations, Assumptions, and Design Controls

As with most studies, there are assumptions that must be made in order for the research to continue. Aspects that limit the ability of the researcher to provide a clear picture of the data are also present with this study. Heppner and Heppner (2004) suggest
that limitations are often methodological issues while an assumption is something that is believed to be fact but may have limited evidence to support it.

**Limitations and Assumptions**

The limitations for this study were relative to the geographical area and design used by the researcher. The results of this study are limited by the following factors:

1. The study was limited to the state of Missouri.
2. The study was limited to only one school district during the 2009-10 school year.
3. The study was limited in the number of participants from each conative action mode.
4. The study was limited to the assumption that participants had no preconceived notions about their conation or that of others.
5. The study was limited to the assumption that participants had no prior knowledge of team building initiatives.
6. The study was limited to the assumption that all surveys were completed by the participant himself or herself.

**Design Controls**

In order to verify that ethical procedures were followed, informed consent letters were sent to the superintendent, principal, and participants only after obtaining approval from the dissertation proposal committee at Missouri State University and the University of Missouri Institutional Review Board (IRB). The consent letters sent to the superintendent, principal, and participants covered the following topics: research purpose, research procedures, risks to the participant, benefits to the participant, withdrawal and
alternatives, confidentiality, contact information, and a disclosure of potential conflicts of interest.

**Definitions of Key Terms**

The following terms are essential to the understanding of this study. A definition of each was provided to give the reader better understanding of these key elements.

*Accountability.* An obligation or willingness to accept responsibility for one’s actions. States and schools are held accountable for student performance on standardized tests. If progress is not made, the federal government imposes sanctions on the school.

*Action Modes.* Action modes are characteristic ways of behaving. Individuals have four specific areas that they will or will not behave in: Fact Finder, Follow Through, Quick Start, and Implementor.

*Action orientation and experimentation.* Members of a professional learning community are oriented for action and experimentation. They believe that engagement and experience are the most effective teachers.

*Administrative Teams.* A team of administrators from the same district comprised of central office and building level administrators who work together to address district level decisions.

*AYP (Adequate Yearly Progress).* A statewide accountability system mandated by the No Child Left Behind Act of 2001 which requires each state to ensure that all schools and districts make Adequate Yearly Progress.

*Balanced team.* For this study, a balanced team is group of people where three or more of the conation action modes are represented.
**Benchmark.** A measurement or standard that serves as a point of reference by which performance is measured.

**Collaborative teams.** The basic unit of a professional learning community. DuFour and Eaker (1998) suggests collaborative teams focus on organizational renewal and working together in a continuous process of improvement.

**Collective inquiry.** DuFour and Eaker (1998) describes collective inquiry as the “releentless questioning of the status quo, seeking new methods, testing those methods, and then reflecting on the results” (p. 25).

**Completion of task.** For this study, completion of task refers to activities that are not measured based on time or points, but whether or not the team is able to do it.

**Conation.** Conative processes are defined as an inclination or instinct. This is the ability “to act.” Schur (1987) defined conation as the area of one’s active mentality that has to do with desire, volition, and striving. Kolbe (2004b) suggested that conation is the way a person instinctively approaches a task or problem.

**Continuous improvement.** DuFour and Eaker (1998) notes that continuous improvement is characterized by a continual discomfort with the status quo and an unvarying search for a better way.

**Distributed Leadership.** According to Spillane (2006), a distributed perspective views organizational leadership as a “product of the joint interactions of school leaders, followers, and aspects of their situation such as tools and routines” (p. 3). It is the network of leaders, followers, and their situations that produce leadership.

**Efficiency.** For this study, efficiency is the ability to complete a task in a timely manner. A team is more efficient than another team if it takes less time to complete a task.
Experience level of teacher. Experience level of a teacher refers to the number of years a teacher has been employed as an educator.

Facilitator. A facilitator is a person who accommodates or is resistant to all four action modes. This individual has no clear cut initiating action mode, but can adapt to the insistencies of others.

Fact Finder. An individual who has been identified as a Fact Finder will attack a problem by gathering additional information. This action mode is defined by the instinct to probe or question.

Factory Model. A model of education based on the factories of the industrial revolution. According to DuFour and Eaker (1998), the predominant characteristics of this model are uniformity, standardization, and bureaucracy.

Follow Through. The Follow Through action mode is characterized by structure. Someone who initiates in the Follow Through mode is methodical and systematic. A Follow Through has an intense need for order and efficiency.

IEP Teams. A multidisciplinary group of professionals who evaluate a child for special services and make decisions and recommendations for the child’s individual education plan.

Implementor. Individuals acting in the Implementor mode is hands-on and prefers dealing with tangibles. They attack problems through their strong sense of three dimensional forms and the ability to deal with the concrete.

Kolbe Conative Index. The Kolbe Conative Index is an instrument developed by the Kolbe Corporation which measures the conation of an individual. The Kolbe Index breaks conation down into four action modes.
Level of performance. For this study, level of performance refers to a task that requires a score or a number of correct responses.

No Child Left Behind Act. Public Law 107-110 was signed by former president George W. Bush with bipartisan support in January of 2002. The law reauthorized a number of federal programs aimed at improving the performance of U.S. schools by increasing the standards of accountability for states, school districts, and individual buildings. Additionally, it reauthorized the Elementary and Secondary Education Act of 1965 (ESEA).

Operating Zones. According to Kolbe (2004b) the operating zones indicate the perspective through which an individual will naturally use their action mode. There are three zones that identify the intensity with which individuals will act in any action mode. The three zones are Initiating, Responding, and Preventing and are explained thusly:

Initiating. To initiate is the instinctive way of approaching a solution to a problem through any Action Mode. Kolbe (1997) described individuals who initiates in an action mode as being insistent.

Responding. According to Kolbe (1997), people who fall into this category are able to function comfortably within an action mode. While this may not be the preferred action mode, individuals who respond are able to work within the action mode.

Preventing. Individuals who operate in the prevention zone of an action mode are said to resist that particular behavior. Kolbe (1997) described someone who is operating in the prevention zone as being capable of operating in an action mode, but they will not choose to if left to their own volition or instincts.
**Professional Learning Communities.** An approach to education that, according to DuFour and Eaker (1998), includes six characteristics: shared mission, vision, and values, collective inquiry, collaborative teams, action orientation and experimentation, continuous improvement, and results orientation. Professional learning communities are teams of educators systematically working together to improve teaching practice and student learning.

**Quick Start.** The Quick Start action mode is characterized by the instinct to innovate. Individuals who are Quick Starts are risk takers and change makers. Quick Starts prefer to work with a deadline.

**Results orientation.** Results orientation simply means that decisions are based on data. DuFour and Eaker (1998) argued that “unless initiatives are subject to ongoing assessment on the basis of tangible results, they represent random groping in the dark rather than purposeful improvement” (p. 29).

**Shared mission, vision, and values.** According to DuFour and Eaker (1998), shared understanding and common values are the most important component of a professional learning community. DuFour and Eaker argued that it is this “collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create” (p. 25).

**Synergy.** According to Covey (1989), synergy means that the whole is greater than the sum of its parts. It is a high level of cooperation that produces the best possible outcomes.

**Teacher Isolation.** Teacher isolation occurs when teachers work in complete oblivion to those around them. Teachers work in isolation when they do not see or know
much about their colleagues’ practices and receive almost no feedback on their own (Lortie, 1975).

*Team Building Initiatives.* Team building initiatives are stimulating problem solving tasks designed to help group members develop their capacity to work effectively together and learn collectively. These activities are designed to be goal oriented and typically physical in nature.

*Transition.* People who are in transition have contradicted themselves when answering the index questions, and therefore, the results are not valid. People in transition are typically conflicted about some area of their lives. This conflict is causing them stress and fatigue.

*Unbalanced Team.* For this study, an unbalanced team is group of people where two or less of the conation action modes are represented.

*Summary*

The insightful words of Margaret Mead still ring true today: “A small group of thoughtful, committed people can change the world.” Now, more than ever, the concept of a team of individuals working toward a common purpose is being embraced in K-12 education. The one room school house gave way to the factory model during the industrial revolution. This assembly line mentality influenced the educational philosophy of the time. Students were the raw materials that were passed from teacher to teacher and on down the line until they reached the end as a finished product. The factory model set the framework for teaching in isolation. Teachers taught their students in their classroom with little to no interaction with other teachers.
The accountability movement had a profound impact on the way teachers taught. The No Child Left Behind Act placed sanctions on schools that did not show improvement on standardized tests. These sanctions included the withholding of funds, the reassignment or release of school personnel, and the closing of schools. This has caused a shift in the approach to school leadership and teaching. Administrators have begun to adopt a distributed leadership perspective. They are delegating authority and encouraging teamwork through the professional learning communities model.

According to DuFour and Eaker (1998), characteristics of a professional learning community include a shared mission, vision, and values, collective inquiry, the use of collaborative teams, action orientation and experimentation, continuous improvement, and results orientation. It is the use of collaborative teams that is the biggest shift from the factory model and teaching in isolation. Collaborative teams are often formed based on content area or grade level and provide time for teachers to work together and learn from one another. Effective collaborative teams are vital to the success of professional learning communities and the schools that use them.

Lencioni (2002) suggested that in order for these teams to be effective they must build trust, use conflict, commit to goals, hold each other accountable, and focus on results. Furthermore, Katzenbach and Smith (1993) suggested that a team needs complementary skills, common goals, and to hold themselves mutually accountable. In the opinion of Kolbe (2004b), it is the mixture of conative approaches and skills that creates synergy and successful outcomes.

Conation is one of the three divisions of the mind. It pertains to the way individuals act or their instinctive way of approaching a problem. Kolbe (1997) has
developed a non-threatening objective tool that examines the natural way people approach problems. The Kolbe Index identifies four action modes that all people instinctively act in to varying degrees. Fact Finders act by probing and seeking information. A Follow Through acts by organizing and looking for patterns. Quick Starts act through innovation. Implementors act through a hands on approach. The purpose of this study was to examine the relationship between a team of individuals who are conatively balanced versus a team who were not conatively balanced.

In Chapter Two, a comprehensive review and synthesis of relevant literature on the use of teams in education, team effectiveness, and conation is presented. Chapter Three includes a description of the method used in this study, including descriptions of the instruments and sampling procedures. Chapter Four contains a presentation of the findings in a quantitative format, including an analysis of each research question. The final chapter, Chapter Five, includes a summary of the results and gives implications for future research.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

Scribner, Sawyer, Watson, Myers, (2005) noted that a distributed leadership perspective argues that successful educational leadership is not simply a function of what superintendents do in districts, or what principals or assistant principals do in schools; instead, educational leadership involves the practices of multiple individuals, and occurs through the complex network of relationships and interactions among the entire staff of a school. This is also evident within the professional learning community model. According to Schmoker (2004), “The right kind of continuous, structured teacher collaboration improves the quality of teaching and pays big, often immediate, dividends in student learning and professional morale in virtually any setting” (p. 48). The collaboration of teachers is accomplished in teams. To this end, Katzenbach and Smith (2003) contended:

it becomes increasingly clear that the potential impact of single teams, as well as the collective impact of many teams, on the performance of large organizations is woefully underexploited – despite the rapidly growing recognition of the need for what teams have to offer. (p. 11)

Working in a team is beneficial, but what makes a team successful? Lencioni (2002) listed five dysfunctions that a team must avoid in order to be effective: absence of trust, fear of conflict, lack of commitment, avoidance of accountability, and inattention to results. Katzenbach and Smith (2003) suggested six basic characteristics that define what it takes for a team to be successful: small number, complementary skills, common
purpose, a common set of specific performance goals, a common working approach, and mutual accountability to each other. According to Kolbe (2004b), “Conative diversity provides the multiplier effect that converts the otherwise limited creative energy of independent contributors into vastly magnified productivity” (p. 142). This study examined the various theories of teaming as well as team effectiveness and consequently demonstrate that a conatively balanced team will perform more effectively than a team that is not conatively balanced.

Commensurate with the purpose of this study, this chapter examined the importance of teams in education in view of the fact that schools are being held accountable for student achievement. Educators are shifting from the factory model of teaching in isolation to a collaborative culture. Furthermore, the use of distributed leadership in the arena of K-12 education and how this is demonstrated through the use of different types of collaborative teams was considered with special consideration given to the professional learning communities model. This chapter then delved into the definition of an effective team and the determining factors for a successful team. The concept of conation was specifically examined along with the relationship between conative styles and the effectiveness of a team. Finally, group initiatives were discussed as a measure of the success of teams.

*The Importance of Teams in Education*

In January of 2002, the federal government enacted the No Child Left Behind Act or NCLB. NCLB endorsed the theories of standards-based education reform, which is based on the belief that setting high expectations and establishing measurable goals can improve individual outcomes in education. In addition to increasing student achievement,
NCLB also aims to increase accountability in public schools. According to the No Child Left Behind Toolkit for Teachers (U.S. Department of Education, 2004),

As part of the accountability provisions set forth in the law, *No Child Left Behind* has set the goal of having every child make the grade on state-defined education standards by the end of the 2013–14 school year. To reach that goal, every state has developed benchmarks to measure progress and make sure every child is learning. State education agencies are required to separate (or disaggregate) student achievement data, holding schools accountable for subgroups of students, so that no child falls through the cracks. A school or school district that does not meet the state’s definition of ‘adequate yearly progress’ (AYP) for two straight years (school wide or in any subgroup) is considered to be ‘in need of improvement.’ (p. 1)

It is further stated:

If the school does not make AYP for a fifth year, the district must initiate plans for restructuring the school. This may include reopening the school as a charter school, replacing all or most of the school staff, or turning over school operations either to the state or to a private company with a demonstrated record of effectiveness. (p. 28)

Before the No Child Left Behind Act, schools operated using a factory model in which students were considered products to be passed from teacher to teacher down an assembly line. At the turn of the last century, the economy of America was changed from rural farms to one of factories and industry. The industrial revolution brought massive change to the country and the nation’s educational structure followed suit. It was during
this era that schools were transformed from the one room school house to a system modeled after mass production and the assembly line. Van Duzer (2006) stated that this shift to the factory model seemed to promise the same efficiency and effectiveness for schools that it had for industry. The factory model has remained the predominant model of education in America since the end of the 19th century; however, America has now entered the information age. This current shift in the economy has been toward information and technology, but schools have not kept pace with this change.

The No Child Left Behind Act placed a great deal of pressure on schools and teachers to perform, yet according to DuFour et al. (2005), “despite the abundance of evidence regarding the benefits of collaborative cultures and the virtual absence of evidence to the contrary, it is the norm for public school teachers in North America to work in isolation…” (p. 16-17). DuFour et al. quoted Lortie who described teachers as solely assuming responsibility for their own classroom and own students (p. 17). These assertions are buttressed by Kidder (1989) who observed:

decades of research and reform have not altered the fundamental facts of teaching.

The task of universal, public education is still being conducted by a woman alone in a little room, presiding over a youthful distillate of a town or city. (p. 53)

According to DuFour et al., “This isolation reflected a profound indifference to instruction and gave teachers tacit, near-total autonomy – permission to teach as well or as poorly as they wished” (p. 139). To the contrary, DuFour et al. (2005) noted:

Other professions understand that collective efforts to improve, sharpen, and refine one’s professional practices have profound and palpable impact on quality and improvement. In science, industry, medicine, and technology, professional
effort and advancement are continuously nourished and accelerated by learning from and working with one’s colleagues; collective work and effort are the engine for improvement and a vital source of professional and psychological satisfaction. (p. 140)

The push for accountability created by the No Child Left Behind Act works in direct opposition to the isolationist environment that teachers have worked in for so many years. It is no longer an era where teachers could teach the same lessons year after year with little regard to the effects on students. Gone are the times when teachers could blame achievement outcomes on factors beyond their control. In the words of Elmore (2000), “Isolation is the enemy of improvement” (p. 20). Accountability is the new measure by which schools are found to be successful.

Despite the demands placed on schools by the No Child Left Behind Act, there were no provisions made for how schools would comply with the law. Senge et al. (1994) contended that “history has brought us to a moment where teams are recognized as a critical component of every enterprise – the predominant unit for decision making and getting things done” (p. 354). Since education is a microcosm of society, it stands to reason that teaming is the next logical step for schools.

*Types of Teams in Education*

Arranging personnel into teams has been identified as an important factor linked to the process of improving schools (Bolman & Deal, 2002; Darling-Hammond, 1996; Newmann & Associates, 1996). The use of teams in K-12 education is not a new concept. Even before the No Child Left Behind Act, teams were established in certain situations, and they continue to be used in increasing frequency. Examples of teams used in
education are the individualized education plan team, the administrative team, and the professional learning team.

One of the first examples of the use of a team was when implementing the Individual Education Plan (IEP), which is designed to meet the needs of special needs students. This team typically consists of the parents, at least one regular classroom teacher, a special education teacher, and an administrator to represent the local education agency. The purpose of this team is to come together and determine the best placement for a child identified as needing special services.

A second type of team used in K-12 education is the administrative team. This team typically consists of the superintendent, assistant superintendent, principals, and any other administrative level position holders. The purpose of the administrative team is to collaborate together to ensure the smooth running of a school district. They discuss policy, student achievement, and personnel issues with the intention of consistent implementation and execution.

The third type of team used in K-12 education has to do with the professional learning communities approach. In this approach teachers are organized into collaborative teams. Professional learning communities is a relatively new concept for schools. In the late 19th and early 20th century, schools were organized after a factory model. Fiske (1992) quoted William T. Harris who described schools in the 19th century in the following way:

Our schools are, in a sense, factories in which the raw material (children) are to be shaped and fashioned in order to meet the various demands of life. The specifications for manufacturing come from the demands of the twentieth century
civilization, and it is the business of the school to build its pupils according to the specifications laid down. (pp. 32-33)

According to Dufour and Eaker (1998), students were simply moved along the educational assembly line while teachers taught their individual subjects with little regard to whether or not learning was actually taking place. To this day, schools are still functioning under this model.

Supporters of professional learning communities hope to challenge this factory model of education. Dufour and Eaker (1998) described six characteristics that professional learning communities have: a shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and results orientation.

Collaborative teams can be arranged in many configurations. Dufour and Eaker (1998) suggested teams be formed according to grade level, shared students, subject area, or professional development area. These teams are responsible for everything from identifying curriculum outcomes to planning and presenting staff development programs. The purpose of a team such as this is to ensure that student learning is taking place. It is the obligation of the principal as the leader to facilitate and provide collaborative teams with the opportunities and authority to establish student learning as a priority (Buffman, Mattos, & Weber, 2009). It is through the distributed leadership perspective that the proper benefit of these teams can be felt.

Defining Teams

While the No Child Left Behind Act addresses accountability and a distributed leadership perspective addresses collaboration, the combination of these two models
leaves open the fertile ground for the implementation of team collaboration. This shift in K-12 education has neither defined what a team is nor what makes one effective. Researchers have identified many characteristics that help to define what a team is. Some of those characteristics include size, complementary skills, a common purpose, common goals, a common approach, and mutual accountability.

Yukl (2006) defined a team as “a small task group in which the members have a common purpose, interdependent roles, and complementary skills” (p. 319). This definition is expanded upon by Katzenbach and Smith (2003) who defined a team as “a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable” (p. 45).

Katzenbach and Smith (2003) contended that a team is a small group ranging from two to 25 people. They stated that for logistical reasons a large group of people has trouble interacting as a group much less agreeing on actionable specifics. In addition, there are also issues of finding time or space for meetings. Finally, large groups provide for crowd or herd-like behaviors, which “prevent the intense sharing of viewpoints that are needed to build a team” (p. 46).

Complementary skills are important when putting a team together. Katzenbach and Smith (2003) maintained that a team cannot get started without some minimum complement of skills, and no team can achieve its purpose without developing all the skill levels required. Bolman and Deal (2003) support this by asserting “exemplary teams find and reward expertise in problem solving, decision making, and interpersonal skills to keep the group focused, on task, and free of debilitating personal squabbles” (p. 105).
To be effective, teams must be committed to a common purpose and performance goals. The characteristic of common purpose of teams is twofold. First, according to Katzenbach and Smith (2003), “a common, meaningful purpose sets the tone and aspiration” (p. 49). Teams develop direction, momentum, and commitment by working to shape a meaningful purpose. Katzenbach and Smith listed three reasons why a team purpose is so powerful. To begin with, a team purpose is a joint creation that exists only because of the team’s collaborative effort. Next, because of the intense discussions that mold a team’s purpose, the purpose itself conveys a rich and varied set of meanings to guide what a team needs to do. Last, but not least, team purposes give teams an identity that reaches beyond the sum of the individuals involved. Lencioni (2006) described this common purpose as “a single overriding theme that remains the top priority for the entire leadership for a given period of time” (p. 179).

The second side of this characteristic of teams has to do with specific performance goals. Katzenbach and Smith (2003) contended that, “Transforming broad directives into specific and measurable performance goals is the surest first step for a team trying to shape a common purpose meaningful to its members” (p. 53). This idea is buttressed by Bolman and Deal (2003) who claimed that “purpose yields an overall mission, but successful teams take the additional step of recasting purpose into specific and measurable performance goals” (p. 105).

Katzenbach and Smith (2003) listed six reasons to provide teams with specific performance goals. First, they define a product that team work will produce that is different from any other aspect of the organization. Second, specific goals encourage and ensure clear communications and constructive conflict within the team. Third, the
attainability of specific performance goals helps teams maintain their focus. Fourth, specific objectives have a leveling conducive to team behavior. Fifth, specific goals allow the team to achieve small wins as it pursues its objective. And finally, performance goals challenge people on the team to commit themselves, as a team, to make a difference.

According to Katzenbach and Smith, “A team’s purpose and specific performance goals have a symbiotic relationship; each depends on the other to stay relevant and vital” (p. 55).

Effective teams must be committed to a common approach. Bolman and Deal (2003) stated that “effective teams take the time to explore who is best suited for a particular task as well as how individual roles come together” (pp. 105-106). This is supported by Katzenbach and Smith (2003) who contended that “agreeing on the specifics of work and how it fits together to integrate individual skills and advance team performance lies at the heart of shaping a common approach” (p. 56). Katzenbach and Smith further assert that social roles are also important to a team. They must be assumed by team members in order to energize and support one another and to keep each other honest and on track.

The members of a team hold themselves mutually accountable. Bolman and Deal (2003) asserted that “pinpointing individual responsibility is crucial to a well-coordinated effort, but effective teams find ways to hold the collective accountable” (p. 106). Katzenbach and Smith (2003) added that “team accountability is about the sincere promises we make to ourselves and others, promises that underpin two critical aspects of teams: commitment and trust” (p. 60). Mutual accountability goes hand in hand with a
strong common purpose. If teams have developed a common purpose they will inevitably
hold themselves, both as individuals and a team, responsible for team performance.

Katzenbach and Smith (2003) suggested that teams require both individual
accountability and collective accountability. They contended:

Teams rely on more than group discussion, debate, and decision; on more than
sharing information and best practice perspectives; on more than a mutual
reinforcing of performance standards. Without discrete team work-products
produced through the joint, real contributions of team members, the promise of
incremental or magnified performance impact goes untapped. (pp. 89-90)

A team strives to be more than the sum of its members. Bolman and Deal (2003)
argued that when teams work well, “they elevate the performance of ordinary individuals
to extraordinary heights. When teams malfunction, as too often happens, they erode the
potential contributions of the most talented members” (p. 95). This is supported by
Marzano, Waters, and McNulty (2005) who stated, “Team members consider themselves
to be collectively accountable for the attainment of their goals” (p. 15).

Having identified the five parts of the definition of a team, further clarification is
essential to delineating the difference between a team and a group of people who simply
work together. Katzenbach and Smith (2003) described the distinction between a team
and a working group as depending on performance.

A working group relies, first and foremost, on the individual contributions of its
members for group performance. It uses its purpose solely to delineate roles, tasks, and
responsibilities. The most important characteristic that separates a working group from a
team is that group members do not take responsibility for any results other than their
own. On the other hand, a team is able to produce more as a unit in comparison to what its members could achieve on their own. Working groups are prevalent in large organizations; however, the focus is always on the performance of the individuals who make up the group and whereas, an effective team benefits from a clear purpose and a common understanding of how performance will be evaluated (Katzenbach & Smith, 2003). Yukl (2006) further clarified this by stating that bowling or wrestling teams are actually working groups, whereas interacting teams are found in soccer or basketball.

Team Effectiveness

The effectiveness of a team can be determined by whether or not it meets its goals; however, a number of factors make that possible. Lencioni (2002) suggested two common problems that befall teams. “First, genuine teamwork in most organizations remains as elusive as it has ever been. Second, organizations fail to achieve teamwork because they fall prey to five natural but dangerous pitfalls…” (p. 187). These five dysfunctions are separate but interrelated. Lencioni argued that susceptibility to even one of them is potentially lethal to the success of a team.

The first dysfunction that Lencioni (2002) described is the absence of trust. This is caused by a person’s unwillingness to be vulnerable within the team. Lencioni stated, “Team members who are not genuinely open with one another about their mistakes and weaknesses make it impossible to build a foundation of trust” (p. 188). Katzenbach and Smith (2003) supported this statement when they assert that “When people do real work together toward a common objective, trust and commitment follow” (p. 60). Lencioni (2005) suggested two reasons why trust is difficult to develop in teams. The first reason is because trust is difficult to define. Lencioni articulated trust as when “team members
learn to be comfortable being open, even exposed, to one another around their failures, weaknesses, even fears” (p. 14). The second reason is because vulnerability based trust is rare in teams. The idea of individuals putting themselves at risk for the good of others is not a natural way for people to act.

The second dysfunction that Lencioni (2002) warned against is the fear of conflict. Lencioni stated, “Teams that lack trust are incapable of engaging in unfiltered and passionate debate of ideas” (p. 188). Furthermore, Katzenbach and Smith (2003) described conflict as a “necessary part of becoming a real team. Seldom do we see a group of individuals forge their unique experiences, perspectives, values, and expectations into a common purpose, set of performance goals, and approach without encountering significant conflict” (p. 110). Additionally, they noted that the most challenging risk associated with conflict is making it constructive rather than simply enduring it. Many times conflict is uncomfortable and avoided by teams (Goleman, Boyatzis, & McKee, 2002). They adopt an artificial sense of harmony and avoid conflict. Lencioni (2005) argued that “If team members are never pushing one another outside of their emotional comfort zones during discussions, then it is extremely likely that they’re not making the best decisions for the organization” (p. 38).

If teams do not have healthy conflict, then they may fall victim to the third dysfunction. Lencioni (2002) listed lack of commitment as the third problem that teams must overcome in order to be successful. Katzenbach and Smith (2003) illustrated commitment and the interconnectedness it shares with trust and conflict. They stated that by committing to hold each other accountable to the team’s goals, each team member earns the right to express his or her own views about all aspects of the team’s effort and
to have their views receive a fair and constructive hearing. By following through on such a promise, the team preserves and extends the trust upon which any team must be built. Lencioni (2005) maintained that “Teams that commit to decisions and standards do so because they know how to embrace two separate but related concepts: buy-in and clarity” (p. 51). Buy-in is the attainment of honest emotional support from team members. The key to achieving buy-in is to start with conflict. Everyone involved must express their opinions without reservation in order to achieve a decision that the team can be confident in. The second part of commitment is clarity. Lencioni described clarity as “the removal of assumptions and ambiguity from a situation” (p. 51). Many teams are able to work through the conflict in order to achieve buy-in, but fail to move forward on their decision because of misalignment and misconceptions about what the decision actually is. By clarifying decisions, teams eliminate confusion and frustration.

Lencioni (2002) listed the fourth dysfunction of a team as avoidance of accountability. Lencioni argues that “without committing to a clear plan of action, even the most focused and driven people often hesitate to call their peers on actions and behaviors that seem counterproductive to the good of the team” (p. 189). Katzenbach and Smith (2003) concurred with this statement by suggesting that accountability can be a useful litmus test of the quality of a team’s purpose and approach. They stated, “Groups that lack mutual accountability for performance have not shaped a common purpose and approach that can sustain them as a team” (p. 61). Lencioni (2005) defined accountability as “the willingness of team members to remind one another when they are not living up to the performance standards of the group” (p. 61). It is clear that the first three
dysfunctions must be mastered before accountability and once accountability is attained, then the final dysfunction can be tackled.

The fifth and final dysfunction that plagues teams is inattention to results. Lencioni (2002) asserted that “inattention to results occurs when team members put their individual needs (such as ego, career development, or recognition) or even the needs of their divisions above the collective goals of the team” (p. 189). In the realm of teams, accountability can be defined as “the willingness to remind one another when they are not living up to the performance standards of the group” (Lencioni, 2005, p. 61).

Kolbe (2004b) stated that “for a team to be effective, the members must recognize the importance of interdependence and understand the nature of one another’s instinctive needs and contributions” (p. 143). Avoiding the five dysfunctions of a team increases the likelihood that a team will achieve their goals. However, Katzenbach and Smith (2003) suggested that complementary skills are necessary for teams to be effective.

Balanced versus Unbalanced Teams

There are many ways to classify teams. Most are defined by their purpose or direction. However, it is essential also examine balanced teams versus unbalanced teams.

Team members from different disciplines bring their respective perspectives to the group. In fact, all members have their own natural method of operation and approach to problem solving. A balanced team is a group of people with diverse approaches to problem solving, which, when combined, creates a synergistic energy that makes the team as a whole stronger than the individual parts. In order for teams to be successful, there needs to be combinations of talent (Goleman, 1995; Kolbe, 2004b; Maxwell, 1999). Katzenbach and Smith (2003) argued that the “challenge for any potential team lies in
striking the right balance between selection and development as the means for building the full set of complementary skills needed to fulfill the team’s purpose over time” (p. 49).

In contrast to a balanced team, an unbalanced team has members with the same procedures and perspectives. They all agree and have the same problem solving approaches. As previously stated by Lencioni (2005), fear of conflict is one of the five dysfunctions of a team. Unbalanced teams limit the amount of conflict and therefore limit the varying approaches that discussion and unfiltered debate can create. This paper will be examining balanced versus unbalanced teams as it pertains to the contributions, the strengths, and the instincts the team members bring.

The use of teams in K-12 education has had a major impact on the leadership styles of administrators. Principals are abandoning the top down approaches that, historically, were used to manage teachers. Distributed leadership is quickly becoming the preferred approach for today’s principals (Spillane, 2006).

* Distributed Leadership

The No Child Left Behind Act has fundamentally altered the way education is approached. Because of this movement toward accountability, schools are being required to change the way they do things. This change begins at the administrative level, and nowhere is this more apparent than with the principal. This is supported by Dufour et al. (2005) with the statement that “profound change in schools, I believe, begins with profound change in leaders, which radiates out to others and into the ‘system’” (p. 157).

The role of the principal as a leader is changing in a major philosophical way. The principal was once considered to be the single, primary, “heroic” leader of a school and having the first and final word. In the opinion of Yukl (2006),
the mystical, romantic quality associated with leadership is similar to the common stereotype for other heroes in our culture, such as the lone cowboy who single-handedly vanquishes the bad guys, and the secret agent who acts alone to save the world from nuclear destruction by terrorists. (p. 449)

He continued by stating that “the heroic leader is expected to be wiser and more courageous than anyone else in the organization and to know everything that is happening in it” (p. 449).

In contrast, Yukl (2006) described an alternative perspective that is slowly gaining more adherents. This distributed perspective defines leadership as a shared process of enhancing the capability of people to accomplish collective work more effectively. Furthermore, Spillane (2006) stated, “A distributed perspective moves beyond the Superman or Wonder Woman view of school leadership” (p. 3). Bradford and Cohen (1984) suggested that shared responsibility for leadership functions and empowerment of subordinates is more effective than heroic leadership, but it is unlikely to occur as long as people expect an individual leader to take full responsibility for the fate of an organization.

Spillane (2006) defined distributed leadership as more than the mere distribution of tasks, but an interactive web of leaders and followers who periodically change roles as the situation warrants. Each participant plays a role essential to the final result. In this way, it becomes apparent that Spillane emphasized the importance of leadership practice. He stated, “A distributed perspective frames leadership practice in a particular way; leadership practice is viewed as a product of the interactions of school leaders, followers, and their situation” (p. 144). Influence is applied through interactions; in fact, Spillane
further stated that influence is not caused by the actions of individuals, but it is the interactions among them that are critical in leadership practice (Bolman & Deal, 2006).

Additionally, Marzano et al. (2005) listed three ways that leadership functions can be distributed: (a) collaborative distribution occurs when the actions of one leader become the basis for actions by another, (b) collective distribution occurs when leaders act independently but for a shared goal, and (c) coordinated distribution occurs when sequential tasks are led by different individuals. Each is a way for influence to be spread throughout the organization.

This distributed perspective shifts the focus away from single heroic leaders to a web of informal leaders, followers, and the situations in which they find themselves. Scribner et al. (2005) considered distributed leadership to be “embedded in the relationships between networked roles and the subsequent multidirectional flow of influence that results” (p. 5). In distributed leadership, the leadership actions of any individual leader are much less important than the collective leadership provided by members of the organization (Bolman & Deal, 2001; Yukl, 2006). Furthermore, to be effective, the collective leadership must be coordinated and complementary, and not working at cross purposes. It is this network of leaders and followers working as a team who bring change to organizations and schools. In the opinion of Gronn (2002), “the leadership of teams can be collectively transformational” (p. 426). Many experts support the power of teams, but defining what a team is has proven to be an elusive endeavor.

**Conation and the Kolbe Model**

If the mind is made of the three mechanisms of affect, cognition, and conation, as previously established, it is now understood that affect is the ability to feel, cognition is
the ability to think, and conation is a person’s inclination or instinct to act. Conation also is related to one’s desire and proclivity to strive. Therefore, further clarification of the action modes in relation to these three mechanisms of the mind as identified by Kolbe is explained as follows:

Action Modes. Kolbe (1997) suggested that conative instincts are found in all people and that everyone operates through all of four conative styles. However, the intensities are different within each individual. Those four styles are: Fact Finder, Follow Through, Quick Start, and Implementor.

Kolbe (1997) contended that a Fact Finder action mode can be described as one who deals with detail and complexity which provides the perspective of experience. This action mode is defined by the instinct to probe. An individual who has been identified as a Fact Finder will attack a problem by gathering more information. A Fact Finder will seek to learn more about a task and its parameters through research and questioning. Individuals who are acting in this mode are precise, cautious, and thorough.

Someone who initiates in the Follow Through mode is methodical and systematic. Individuals who have a Follow Through action mode have an intense need for order and efficiency. They excel in situations where planning and designing are necessary. They attack problems by looking for patterns. Kolbe (2004b) described the Follow Through action mode as one who uses instinct to pattern and determines how a person relates to structure.

Kolbe (1997) portrayed a person who has been identified as a Quick Start as “creating the chaos that others have to clean up” (p. 17). Quick Starts work in the action mode that deals with originality and risk-taking. A Quick Start provides intuition and a
sense of vision. These individuals tend to work through improvisation and innovation to achieve stability. Quick Starts force change and disruption because they prefer to work in crisis mode.

Implementors are practical in their orientation. They attack problems through their strong sense of three dimensional forms and the ability to deal with the concrete. A person acting in the Implementor mode is hands-on and prefers dealing with tangibles. Kolbe (1997) argued that the Implementor works through the instinct to demonstrate and they initiate solutions by using tools and implements.

According to the Hopgood (2007), 20% of the population initiates as a Fact Finder, 20% as a Follow Through, 20% as a Quick Start, and 20% as an Implementor with 20% of individuals tested falling in the categories of facilitators or in transition. A facilitator is a person who does not initiate in any mode but can accommodate or respond to any mode. Individuals who are in transition have contradicted themselves when answering the index questions and therefore the results are not valid. For the purposes of this study, persons in transition will not be utilized.

Operating Zones. Within these four action modes are three operating zones. Everyone has all four action modes, but the operating zones indicate the perspective through which individuals will naturally use their action mode (Kolbe, 2004b, p. 11). Individuals are given a score ranging from one to nine. This score forms a continuum indicating the propensity individuals have for each action mode. The higher the score, the more likely that action mode is their instinctive style.

The first operating zone is initiation. If someone initiates in an action mode, it means he or she will instinctively act in that mode. Kolbe (1997) stated that initiating
“means that given free rein, this is how you will proceed, as naturally and intensely as a cat chasing a mouse” (p. 25). Kolbe described a person who initiates in an action mode as being insistent. A person who initiates in the fact finder mode will instinctively start probing and questioning about an assigned task. This person insists on investigating and collecting facts.

The second operating zone is response. According to Kolbe (1997), people who fall into this category are able to function comfortably within an action mode. While they may not be a leader or a star in this action mode, they are not stressed by it either. A person who responds in an action mode can be described as accommodating. A person who responds in three or four action modes is considered a mediator or facilitator.

The final operating zone is prevention. Individuals who operate in the prevention zone of an action mode are said to resist that particular behavior. Kolbe (1997) described people who are operating in the prevention zone as being capable of operating in an action mode, but they will not choose to if left to their own volition or instincts. Kolbe argued that while someone in the prevention zone “may be able to get by in a certain mode, you’ll be dragging your feet or overcompensating all the way, and if you have to operate there for too long a period, the stress of going against your grain will sooner or later lead to burnout” (p. 25).

Kolbe (2004) argued that “an organization’s greatest competitive advantage lies in building employee teams that have a synergistic mix of Striving Instincts” (p. 142). According to Covey (1989), “the essence of synergy is to value differences – to respect them, to build on strengths, to compensate for weaknesses” (p. 263). On the other hand, Kolbe (2004) contended that if a team’s members all operate from the same action mode,
the team will get bogged down. Team members need others of differing action modes in order to achieve a balanced approach. “For a team to be effective, the members must recognize the importance of interdependence and understand the nature of one another’s instinctive needs and contributions” (Kolbe, 2004b, p. 143). Furthermore, Covey (1989) suggested that the “key to valuing those differences is to realize that all people see the world, not as it is, but as they are” (p. 277).

**Team Building Initiatives**

Little attention has been given to team composition as related to effectiveness; however, recommendations and methods for building teams are abundant. The main goals of team building are to improve productivity and motivation. Team building initiatives are stimulating problem solving tasks designed to help group members develop their capacity to work effectively together and learn collectively. These activities are designed to be goal oriented and typically physical in nature. According to Robinson and Rose (2007), three characteristics of high performing teams are member trust, participation, and motivation; member ability to solve problems in innovative ways; and member use of individual diversity as an opportunity and mechanism to improve performance. The benefits of team building programs are so significant that many organizations have incorporated team building strategies into their training programs.

Some of the benefits of using team building initiatives are an improvement in morale and leadership skills, which break down the barriers that thwart creativity, and they set a model for clearly defining objectives and goals. Initiatives also improve processes and procedures, they improve organizational productivity, they help to identify
a team’s strengths and weaknesses, and they improve the ability to problem solve. For the purpose of this study, teams will participate in a team building activity in order to measure team effectiveness and success.

Team building activities typically have three possible outcomes. First, a team is timed on the efficiency with which they complete a task. Second, a team either successfully completes the task or they fail to complete the task. Finally, a team gets points for the number of times they complete a task correctly. This study will measure teams in one of these three methods in order to determine their success.

Summary

Historically, K-12 education was patterned after the factory model of the late industrial revolution. This model treated students as raw material that teachers moved down an assembly line from one grade to another. Teachers only took responsibility for their group of students, which they taught behind closed doors with little or no contact to other teachers in the building. They worked in isolation from others in their profession, and accountability was nonexistent—that is until the passage of standards-based education reform legislation entitled the No Child Left Behind Act. The No Child Left Behind Act required accountability through the use of high standards and measureable goals.

One way to meet the accountability of NCLB was to embrace a new model of teaching that did not encourage the assembly line method of education or teachers working isolation. This new concept was called professional learning communities. Characteristics of professional learning communities are a shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation;
continuous improvement; and results orientation. It is these collaborative teams that create collegiality and true learning among teachers for the betterment of their instruction and student learning.

The distributed leadership model has been embraced by many principals because of its use of teams and shared leadership. Spillane (2006) stated that influence is not caused by the actions of individuals, but it is the interactions among them that are critical in leadership practice. It is these interactions that separate a working group from a true team. A working group is made up of people with individual goals and individual accountability while a team functions more as a unit and benefits from a common purpose and a clear understanding of how performance will be evaluated. The effectiveness of a team relies, first and foremost, on whether or not they achieve their goals. Secondly, an effective team must avoid five hazards that can befall teams. They are the absence of trust, the fear of conflict, a lack of commitment, avoidance of accountability, and inattention to results. Yukl (2006) and Katzenbach and Smith (2003) argued that a team should have complementary skills.

Conation is the term given to the natural striving instinct a person has. Conation is divided into four action modes that are found in all people. Kolbe (1997) described those modes as Fact Finder, Follow Through, Quick Start, and Implementor. A Fact Finder is a gatherer of information, and a Follow Through is a planner. A Quick Start is someone who improvises, while Implementors are practical and hands-on. The degree to which individuals act in any one of these modes is determined by the intensity of their operating zone. Initiating in an action mode means that individuals will almost always act in that mode while responding signifies that they will adapt to that mode if the situation requires...
it. Preventing implies that they prefer not to work in that mode and resist others who do. Conation can have a profound impact on team effectiveness. Kolbe (2004) argued that a team could not be effective unless the members recognized the importance of interdependence and developed an understanding for the nature of one another’s instinctive needs and contributions.

Team building initiatives are problem solving tasks that are typically physical. They are a good way to improve teams through cooperation and collaboration. This study will use team building initiatives as a way of studying the effectiveness of a team.

This study intends to determine if there is a difference between balanced and unbalanced teams in terms of their efficiency, in terms of their successful completion of a task, and in terms of their level of performance. The experiences of teachers while working in balanced versus unbalanced teams will be noted as well. Chapter Three provides a description of the research methodology, including the measurement instruments used and sampling procedures. Chapter Four includes the data analysis and research findings. In Chapter Five the results of the study are summarized and implications for further research investigations are given.
Education in America has undergone many changes. The United States began as an agrarian society and schools reflected that. During the 1800s, one room school houses were the norm. At the end of the 19th century, America was in the midst of the industrial revolution and education was transformed from the one room school house to an approach based on the factory model. In the factory model, schools were likened to assembly lines with students being the product that was passed down the line from year to year. Mattos (2009) described four characteristics of today’s traditional U.S. school system. He pointed out that professional isolation existed, failure was okay, few students went to college, and it was the teacher’s job to sort students. This view of education has dominated American schools for more than a century. For years, teachers worked in isolation with little to no contact with their peers, as they prepared their product for the next year’s teacher. Collaboration and cooperation were not encouraged and rarely happened.

At the end of the 20th century, society was once again changing. Technology and the internet have thrust the country into an era where information is available at one’s fingertips and data drives decision making. Shared information broke down barriers to isolation and laws began to reflect that. It is this shift, from the industrial age to the information age, that brought about an increased call for accountability in education and the passage of the No Child Left Behind Act. Sanctions were imposed on schools who did not meet the standards of the No Child Left Behind Act. Education is in the midst of
change to meet this new challenge. Principals are leading through a distributed perspective and schools are moving to an approach known as professional learning communities.

Overview

According to DuFour and Eaker (1998), there are six characteristics of professional learning communities: a shared mission, vision, and values; collective inquiry; collaborative teams; action orientation and experimentation; continuous improvement; and a results orientation. Collaborative teams are the subject of this study.

Collaborative teams are typically formed based on content area or grade level with little thought given to the cohesiveness of the individuals or the complementary skills that are needed in order to be effective and successful. Katzenbach and Smith (1993) suggested that one of the deciding factors of team effectiveness is based on the complementary skills of the members. Kolbe (2004b) suggested that “conative diversity provides the multiplier effect that converts the otherwise limited energy of independent contributors into vastly magnified productivity” (p. 142). Conation is the instinctive way a person approaches problems. It is characterized by the four action modes.

Merriam-Webster dictionary defines cognition as involving conscious intellectual activity. This refers to the ability “to think” and “to know.” Affective processes are defined as relating to, arising from, or influencing feelings or emotions. This is the ability “to feel.” Conative processes are defined as an inclination or instinct. This is the ability “to act.”

Each of these processes has an impact on leadership. Cognitive abilities allow a person to learn the skills necessary for a job. Affective ability or emotional intelligence
determines how people approach others with whom they work and the quality of the relationships. Conative abilities determine the approach a person will use when doing that job. Kolbe (1997) suggested that all people operate in one of four conative modes or preferred methods of putting thought into action. Those four action modes are:

- Fact Finder (instincts to probe, refine and simplify)
- Follow Thru (instincts to organize, reform and adapt)
- Quick Start (instincts to improvise, revise and stabilize)
- Implementor (instincts to construct, renovate and envision)

According to Hopgood (2007), 20% of the population instinctively approaches problems in each of these categories. An additional 20% do not fall into one of these four categories and are defined as mediators or being in transition. A mediator is a person who does not initiate in any mode, while individuals who are in transition have contradicted themselves when answering the index questions and therefore the results are rendered invalid. When individuals have a Kolbe score that is in transition, they are asked to wait six months and then re-take the index.

Kolbe (1997) describes each of the four conative modes thusly:

A Fact Finder action mode can be described as someone who deals with detail and complexity. They immerse themselves in the specifics and research, which provides them with the perspective of experience. An individual who has been identified as a Fact Finder will attack a problem by gathering more information. A Fact Finder will seek to learn more about a task and its parameters through research and questioning. Individuals who are acting in this mode are precise, cautious, and thorough.
Someone who initiates in the Follow Through mode is methodical and systematic. A Follow Through has an intense need for order and efficiency. Follow Throughs will excel in situations where planning and designing are necessary. They attack problems by looking for patterns.

Kolbe (1997) portrayed a person who has been identified as a Quick Start as working in the action mode that deals with originality and risk-taking. A Quick Start action mode provides intuition and a sense of vision. These individuals tend to work through improvisation and innovation to achieve equilibrium and stability.

Implementors are practical in their orientation. They attack problems through their strong sense of three dimensional forms and the ability to deal with the concrete. A person acting in the Implementor action mode is hands-on and prefers dealing with tangibles.

*Purpose*

The purpose of this study is to enhance the knowledge of the use of collaborative teams in the K-12 educational setting and, more specifically, the impact of balancing those teams based on the conative style of the team members. This study intends to determine if there is there a difference between balanced and unbalanced teams in terms of their efficiency, in terms of their successful completion of a task, and in terms of their level of performance. The experiences of teachers while working in balanced versus unbalanced teams will be noted as well.

A mixed design was utilized including a quantitative as well as a qualitative approach. According to Merriam (1998), “the key concern is understanding the phenomenon of interest from the participants’ perspectives, not the researcher’s” (p. 6).
Interview data and comments to open ended survey questions provided description and
detail.

Using teacher teams as the unit of analysis, this study was focused on the
effectiveness of teams with conatively balanced membership and the effectiveness of
teams with conatively unbalanced membership. Teams will be given initiatives to
complete, and effectiveness will be measured based on whether or not they can complete
the task, the amount of time it takes to complete the task, or the number of points they
accumulate while completing the task.

Research Questions

Within the context of this study, the following research questions were addressed:

1. Is there a difference between balanced and unbalanced teams in terms of their
efficiency?

2. Is there a difference between balanced and unbalanced teams in terms of their
successful completion of a task?

3. Is there a difference between balanced and unbalanced teams in terms of their
level of performance?

4. What are the experiences of teachers when working in balanced and unbalanced
teams?

Design of the Study

This study utilized a mixed design methodology in order to achieve triangulation
between the statistical data of the quantitative method and the descriptive data of the
qualitative method. This design strengthened the study and produced results that are both
valid and practical because it incorporates the objective and subjective information in a descriptive manner.

Quantitative research is typically approached using empirical data in the form of statistics collected on a topic. Consequently, it is considered to be an “objective” form of research without bias or prejudice. As a result, the quantitative researcher tries to remain removed from the study in order to maintain objectivity. In the opinion of Merriam (1998), “human instruments are as fallible as any other research instrument” (p. 20). Additionally, quantitative research seeks to find the what, the where, and the when of a particular study. Researchers who use the quantitative method are interested in finding a relationship or causation. According to Merriam (1998), “quantitative research takes apart a phenomenon to examine component parts” (p. 6). In doing so, quantitative research takes on a narrow focus which does not paint the descriptive picture of qualitative research.

The purpose of qualitative research is to find out why a particular thing is the way it is. Once the why is figured out, it becomes a matter of what can be changed for the better. Therefore, qualitative research is not done merely to test hypotheses, it is done in order to change behavior. Furthermore, Merriam (1998) stated that qualitative research involves feedback. Feedback gives direction and can initiate a change in behavior. Merriam further stated that “qualitative research focuses on process, meaning, and understanding; therefore the product of a qualitative study is richly descriptive” (p. 8).

Participants in this study were elementary teachers from a Midwestern school district. All participants had completed the Kolbe A Index and were aware of their predominant action mode. Participants were divided into teams based on their action
modes. Teams with a balance of conative styles as well as teams with an unbalanced conative style were formed. These teams were asked complete various team building initiatives. Balanced team scores were compared to unbalanced teams. In addition, participants were asked to complete a questionnaire to reflect on their experience.

Population and Sample

The sample was random and one of convenience. It consisted of educators who work in a rural elementary school in the southern part of a Midwestern state and who have completed the Kolbe A Index. The sample was heterogeneous with both genders represented as well as a variety of ages.

The Kolbe A index categorizes people based on their predominant action mode. Hopgood is certified to administer the Kolbe A and interpret the results. According to Hopgood (2007), 20% of the population initiates in one of the four action modes. In the general population, 20% are Fact Finders, 20% are a Follow Through, 20% are Quick Starts, and 20% are Implementors. Another 20% of the population falls into the categories of Facilitator or Transition. This study will not utilize any subjects who are in Transition.

In this elementary school, 28 educators are Fact Finders, 26 are Follow Throughs, 13 are Quick Starts, 1 is an Implementor, and 5 are Facilitators. This is not indicative of the general population, but it is characteristic of the field of education. Hopgood (2007) stated that there are a high number of Fact Finders and Follow Throughs among educators and a relatively low number of Quick Starts. Implementors are nearly nonexistent in the field of education because of their preference for hands-on concrete
models while Fact Finders and Follow Throughs are drawn to a profession that requires the collection of facts and an organized environment.

**Procedures and Data Collection**

The procedure for this study will involve educators who have taken the Kolbe A index to determine their conative action mode. These educators will be divided into balanced and unbalanced teams according to their action modes. A balanced team will be comprised of three or more of the four action modes. For the purposes of this study, participants identified as being in transition will not be assigned to a team.

Once teams have been formed, participants will be asked to complete team building activities. Three types of team building activities will be utilized. The first type will be one of efficiency with an objective of finishing a task within a specified amount of time. The second type of activity will be one that requires completion of a task. In this activity, success will be based solely on whether or not the objective has been achieved. The third type of activity is one which measures the level of performance. This activity requires an activity be completed as many times as possible for a score. When teams have finished the activities, they will be asked to complete a written survey about the experience.

**Data Analysis**

Using the Kolbe Index as a format to examine school team work in areas of efficiency, completion of task, and level of performance is the goal of this study. Since data will drive the results of much of this study, an open ended question will be included to describe the participant’s feelings of how the team performed. According to Heppner
and Heppner (2004), qualitative researchers are interested in capturing the participant’s perspective through multiple strategies such as interviewing and observation.

Research question one attempted to determine if there was a difference between balanced and unbalanced teams in terms of their efficiency. This was ascertained through the use of three team activities that require efficiency to achieve the desired outcome. The times for these efficiency activities were the dependent variable. The type of team that is participating in the activity was the independent variable and was described as balanced or unbalanced. The analysis of this data was done through a $t$-test of the independent samples. An alpha level of .05 was used as an acceptable level of significance. According to Field (2005), the alpha level is the P-value that researchers decide to accept before they are confident enough to release a finding.

Research question two attempted to discover if there was a difference between balanced and unbalanced teams in terms of their successful completion of a task. This was determined when a team either successfully completed the assigned task or failed to complete the assigned task. The dependent variable in this case was whether or not they completed the task. The independent variable was once again the balanced versus unbalanced team. The data was cross tabulated and a chi-square test was run. An alpha level of .05 was used.

Research question three attempted to answer if there is a difference between balanced and unbalanced teams in terms of their level of performance. This was determined by a score that was achieved for the activity. The dependent variable was the score achieved. The independent variable was the type of team. Data was analyzed using an independent samples $t$-test with an alpha level of .05.
Research question four was used to add a qualitative perspective to the study. Open ended questions were used to add descriptive data and participant perspective. Data from these questions were analyzed using open and axial coding. Examples of these questions can be found in Appendix A.

Summary

The approach to education in the United States has undergone a metamorphosis during the last century. First, there was the one room school house which was representative of the agrarian society which it served.

Then came the industrial revolution and the rise of factories and big cities. Schools reflected this shift. Teachers worked in isolation on their version of the assembly line as they moved their products toward the end of the line. Teachers did not collaborate or cooperate on best practices, nor were they held accountable for poor instruction.

Finally, with the passage of the No Child Left Behind Act came the push for accountability. This accountability coupled with the rise of the information age transformed education once again. Schools are using professional learning communities as an approach to education.

According to DuFour and Eaker (1998), characteristics of a professional learning community include a shared mission, vision, and values, collective inquiry, the use of collaborative teams, action orientation and experimentation, continuous improvement, and results orientation. It is the use of collaborative teams that is the biggest shift from the factory model and teaching in isolation. Effective collaborative teams are vital to the success of professional learning communities and the schools that use them.
Katzenbach and Smith (1993) suggested that a team needs complementary skills, common goals, and to hold themselves mutually accountable. Furthermore, Lencioni (2002) suggested that in order for teams to be effective they must build trust, use conflict, commit to goals, hold each other accountable, and focus on results. In the opinion of Kolbe (2004b), it is the mixture of conative approaches and skills that creates synergy and successful outcomes.

Conation is one of the three divisions of the mind. It pertains to the way individuals act or their instinctive way of approaching a problem. The Kolbe Index identifies four action modes that all people instinctively act in to varying degrees. Fact Finders act by probing and seeking information. A Follow Through acts by organizing and looking for patterns. Quick Starts act through innovation. Implementors act through a hands on approach. The purpose of this study was to examine the relationship between a team of individuals who are conatively balanced versus a team who were not conatively balanced.

The results of the data collection and correlational relationship will be presented in chapter four. In chapter five, a summary of the study, the findings, and the implications for practice are discussed. Recommendations for future research are also introduced in chapter five.
CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

Introduction

During the last century, American education was based on the factory model. Schools were run like assembly lines with students being the product that was passed down the line from year to year (Van Duzer, 2006). According to Mattos (2009), the traditional U.S. school system exhibited professional isolationism and encouraged few students to go to college. Students were allowed to fail and it was the teacher’s job to sort students into career tracks. With the passage of No Child Left Behind, schools have changed their focus to be one of collaboration and results-based (U.S. Department of Education, 2004).

Presented in this chapter are the findings from the study and a statistical analysis of the data received pertaining to the research questions discussed in chapter three. The intent of this study was to determine if there was a relationship between a conatively balanced team and team effectiveness. The use of collaborative teams is becoming widespread in schools; however the effectiveness of these teams varies and is largely unknown. The question then becomes how to increase team effectiveness. Conation, according to Schur (1987), is the area of one’s active mentality that has to do with desire, volition, and striving. Kolbe (1997) supported this by suggesting that conation is the way a person will instinctively act in a given situation. Furthermore, Kolbe established that there are four action modes that individuals instinctively exhibit their conative style. They are Fact Finder, Follow Through, Quick Start, and Implementor.
Participants in this study were arranged into teams of four. Teams were considered either conatively balanced or conatively unbalanced. Balanced teams contained three or more of the four different action modes while unbalanced teams contained two or fewer action modes. Teams completed team building initiatives in order to determine team effectiveness.

Research Question One

Is there a difference between balanced and unbalanced teams in terms of their efficiency? This was ascertained through the use of three team activities that require efficiency to achieve the desired outcome. Activities used are in Appendix C. The times for these efficiency activities were the dependent variable. The type of team that is participating in the activity was the independent variable and was described as balanced or unbalanced. The analysis of this data was done through a t-test of the independent samples. An alpha level of .05 was used as an acceptable level of significance. According to Field (2005), the alpha level is the P-value that researchers decide to accept before they are confident enough to release a finding.

Research Question Two

Is there a difference between balanced and unbalanced teams in terms of their successful completion of a task? This was determined when a team either successfully completed the assigned task or failed to complete the assigned task. Activities used are in Appendix C. The dependent variable in this case was whether or not they completed the task. The independent variable was once again the balanced versus unbalanced team. The data was cross tabulated and a chi-square test was run. An alpha level of .05 was used.

Research Question Three
Is there a difference between balanced and unbalanced teams in terms of their level of performance? This was determined by a score that was achieved for the activity. Activities used are in Appendix C. The dependent variable was the score achieved. The independent variable was the type of team. Data was analyzed using an independent samples t-test with an alpha level of .05.

**Research Question Four**

What are the experiences of teachers when working in balanced and unbalanced teams? Open ended questions were used to add descriptive data and participant perspective. Data from these questions were analyzed using open and axial coding. Examples of these questions can be found in Appendix A.

**Overview of the Study**

The sample for this study was one of convenience. It consisted of educators who work in a rural elementary school in the southern part of a Midwestern state and who have completed the Kolbe A Index. The sample was heterogeneous with both genders represented, as well as a variety of ages.

The Kolbe A index categorizes people based on their predominant action mode. According to Hopgood (2009), 20% of the population initiates in one of the four action modes and another 20% of the population falls into the categories of Facilitator or Transition.

In this elementary school, 28 educators are Fact Finders, 26 are Follow Throughs, 13 are Quick Starts, 1 is an Implementor, and 5 are Facilitators. This is not indicative of the general population, but it is characteristic of the field of education. Hopgood (2009) stated that there are a high number of Fact Finders and Follow Throughs among
educators, and a relatively low number of Quick Starts. Implementors are nearly nonexistent in the field of education because of their preference for hands-on concrete models, while Fact Finders and Follow Throughs are drawn to a profession that requires the collection of facts and an organized environment.

The subjects were divided into teams that were either conatively balanced or conatively unbalanced. Conatively balanced teams were composed of three or more different Kolbe action modes while conatively unbalanced teams had two or less action modes.

Teams were asked to complete activities that required the use of collaborative skills in an effort to ascertain the effectiveness of their team. The results of these activities were analyzed to determine if there was a significant difference between conatively balanced teams and conatively unbalanced teams.

This study followed a mixed design methodology. Research questions one, two, and three were analyzed using quantitative methods while question four provided qualitative information in the form of descriptive evidence and anecdotal support.

Results

Research Question One

Research question one attempted to determine if there was there a difference between balanced and unbalanced teams in terms of their efficiency. This was ascertained through the use of three team activities that require efficiency to achieve the desired outcome. The times for these efficiency activities were the dependent variable. The type of team was participating in the activity was the independent variable and was described as balanced or unbalanced. The analysis of this data was done through a t-test of the
independent samples. An alpha level of .05 was used as an acceptable level of significance.

Data collected from the efficiency activities can be seen in Table 1. An independent samples $t$-test analysis compared the efficiency of task completion of a conatively balanced team to that of a conatively unbalanced team. The results revealed that there was a nonsignificant difference between the two groups. [balanced mean = 153.17, $sd = 108.585$; unbalanced mean = 150.89, $sd = 102.626$; $t(35) = .065; p = .899$].

A team with conative balance was not significantly more efficient than a team that was conatively unbalanced. Figure 2 illustrates the similarity between the two groups.

Table 1

<table>
<thead>
<tr>
<th>Type of Team</th>
<th>$N$</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced</td>
<td>18</td>
<td>153.17</td>
<td>108.59</td>
<td>25.59</td>
</tr>
<tr>
<td>Unbalanced</td>
<td>19</td>
<td>150.89</td>
<td>102.62</td>
<td>23.54</td>
</tr>
</tbody>
</table>

*Note. Efficiency was measured as total time to complete three tasks.*
Research Question Two

Research question two attempted to discover if there was a difference between balanced and unbalanced teams in terms of their successful completion of a task. This was determined when a team either successfully completed the assigned task or failed to complete the assigned task. The dependent variable in this case was whether or not they completed the task. The independent variable was once again the balanced versus unbalanced team. The data was cross-tabulated and a chi-square test was run. An alpha level of .05 was used.

Figure 2. Balanced versus Unbalanced Efficiency
Data collected from the completion activities can be seen in Table 2. A chi-square test of independence was calculated comparing the successful completion of a task by a conatively balanced team and a conatively unbalanced team. A significant interaction was not found [$\chi^2 (1) = .803, p = .370$]. Conative balance did not play a significant role in successful completion of a task. Figure 3 does show a slightly worse completion rate for conatively unbalanced teams; however it is not at a significant level. The tasks were carefully designed with levels of difficulty and a reasonable amount of time to perform them. There was no indication from the observation of this researcher nor was there any mention made by the participants in their written responses to indicate that the tasks were too easy or that there was too little time to perform them.

Table 2

*Comparison of Conatively Balanced and Unbalanced Teams in Terms of Successful Completion of a Task*

<table>
<thead>
<tr>
<th>Type of team</th>
<th>Not Completed</th>
<th>Successful Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td>Balanced</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unbalanced</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td>39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question Three

Research question three attempted to answer if there is a difference between balanced and unbalanced teams in terms of their level of performance. This was determined by a score that was achieved for the activity. The dependent variable was the score achieved. The independent variable was the type of team. Data was analyzed using an independent samples t-test with an alpha level of .05.

Data collected from the performance activities can be seen in Table 3. An independent samples t-test analysis compared the level of performance of a conatively
balanced team to that of a conatively unbalanced team. The results revealed that there was a nonsignificant difference between the two groups; however there were two outliers, both from balanced teams, within the data set. Initially the data was calculated utilizing all reported scores, it was noted however that two scores appeared skewed. Due to this the two outliers were modified by reducing the mean to portray a more accurate reflection of the data collected [balanced mean = 30.89, \( sd = 36.333 \); unbalanced mean = 18.43, \( sd = 18.511 \); \( t(37) = 1.379; \) \( p=.104 \)]. A team with conative balance was not significantly more successful at a task than a team that was conatively unbalanced. Figure 4 illustrates the similarity between the two groups.

Table 3

*Comparison of Conatively Balanced and Unbalanced Teams in Terms of the Level of Performance of a Task*

<table>
<thead>
<tr>
<th>Type of Team</th>
<th>( N )</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced</td>
<td>18</td>
<td>30.89</td>
<td>36.33</td>
<td>8.56</td>
</tr>
<tr>
<td>Unbalanced</td>
<td>21</td>
<td>18.43</td>
<td>18.51</td>
<td>4.04</td>
</tr>
</tbody>
</table>

*Note.* Level of performance was measured as total scores from three tasks.
Research Question Four

Research question four was used to add a qualitative perspective to the study. Open ended questions were used to add descriptive data and participant perspective. Data from these questions were analyzed using open and axial coding. Examples of these questions can be found in Appendix A.

Within this study, teams consisted of four participants. Teams one through six were conatively balanced with three or more of the four action modes present. Teams seven through thirteen were conatively unbalanced with two or fewer of the four different
action modes. Team seven was made up completely of Quick Starts. Teams eight, nine, and ten were entirely Fact Finders. Teams eleven, twelve, and thirteen were composed exclusively of Follow Throughs. Members of all teams completed questionnaires once the activities were finished. Each questionnaire contained five open ended questions.

Balanced teams. Several common themes were found within the comments made by the balanced teams including a focus on positive interactions. Furthermore, participants described positive interactions as having a major impact on team performance in 32% of their comments. One participant stated, “Encouragement was given by all, which in turn led to success.” A second commented that, “The team’s performance was enhanced by positive interactions within the team.”

A second theme found within the comments made by participants was that communication was vital to team success. Participants described communication in 29% of their responses on questionnaires. One participant on a balanced team stated, “Good communication was the most effective aspect of the team process for our team.” Another wrote that “good communication was the key.”

Other common themes found in statements of the participants of balanced teams include cooperation in 15% of the comments, complimentary skills in 11%, organizing or planning in 8%, brainstorming in 6%, and the use of trial and error was mentioned in 2% of participant comments. One participant wrote “the problem solving process is very effective because the team uses the strengths of individual team members. What may be difficult to solve alone becomes easier as we worked together.” Another participant stated, “We gave each other ideas and helped compensate when needed.”
Unbalanced teams. There were seven unbalanced teams in this study. One team was made up completely of Quick Start action modes, three teams were made up completely of Fact Finder action modes, and three teams were made up completely of Follow through action modes. Common themes found in the comments of participants on unbalanced teams were similar to those of balanced teams. Positive interactions were the most commonly referenced answer in 24% of responses. One participant wrote, “Positive praise from each other encourages each team member to try hard and do their best.”

Communication was also a common theme with 23% of all comments relating to listening or communicating. One participant commented that, “If team members do not communicate it can be a negative experience, but when communication is present it is great to achieve your goals.”

Other common themes present in participant questionnaires were cooperation in 14% of responses, organizing or planning in 13%, brainstorming in 6%, trial and error in 5%, and complementary skills in 4%. One participant wrote, “You either like someone else’s idea more and use it or strengthen your idea by explaining it.” Another commented, “Once we discovered the problem, we identified possible solutions and then came up with logical steps to solve the problem.”

One discrepancy in responses made by balanced teams compared to unbalanced teams was complementary skills. Balanced teams commented on this in 11% of their answers while unbalanced teams only noted it 4% of the time. One member of a balanced team wrote, “The problem solving process is very effective because the team uses the strengths of individual team members. What becomes difficult to solve alone becomes easier as we worked together.”
Unbalanced teams were disaggregated by action mode which produced some significant results in relation to participant comments. Communication was referred to in 23% of comments made by unbalanced teams; however 78% of those comments were made by participants with a strong Fact Finder action mode. Conversely, communication was not mentioned in any responses made by participants with a Quick Start action mode.

Another theme that was of interest was planning. Participants on unbalanced teams listed planning in 13% of their responses on questionnaires; however 83% of those responses were made by individuals with a Follow Through action mode. As one participant wrote, “We read directions as a group; we talked out what we would do before starting.”

Positive interactions regarding the team problem solving process were mentioned in 24% of responses made by unbalanced teams. However, only one mention of positive interactions by Quick Start participants was noted. Additionally, one of the things that was discussed regarding problem solving, was the use of trial and error to accomplish the task. This was noted in 5% of responses, but not at all with participants having a Fact Finder action mode.

Observations. During the time that participants were completing the activities, the researcher circulated with observers to take note of behaviors and group dynamics. It was the observations of the researcher as well as the answers to the questionnaires that were the most enlightening as to the perceptions and attitudes of the participants.

It was observed in some groups, age was a factor in group dynamics. Older participants would immediately take charge of a group and guide them in a direction they thought was correct. In one group, a task had become too difficult for them to complete
when the youngest member of the team pointed out a solution. Two of the older members immediately reverted back to the way they had been doing it and said, “No, that’s not right.”

Other factors were gender. One group of four females looked to and took direction from their male time keeper even though he was not a part of the team or the activities. He assumed control of the group and directed them through the activities.

Physical size played a role in these tasks because they were physical tasks. In some cases, the tallest participants became group leaders. At other times, the type of activity dictated what physical attributes were necessary.

**Summary**

The purpose of this study was to determine if there was a significant difference between the effectiveness of a conatively balanced team versus the effectiveness of a conatively unbalanced team. In order to determine this, the researcher organized participants into teams based on their conative styles. Conative styles were determined by the results of a Kolbe A index which was administered to all participants. The results of the Kolbe A index indicate which action mode the participant was most likely to instinctively act in. The four action modes are Fact Finder, Follow Through, Quick Start, and Implementor.

Participants were arranged into conatively balanced and conatively unbalanced teams. A conatively balanced team was made up of three or more of the four action modes while a conatively unbalanced team was made up of two or less. These teams were given tasks to complete that measured efficiency of a team, successful completion of a task, or level of performance.
Each of the questions analyzed in this study was analyzed either by doing a t-test of significance comparison of means or by doing a Chi-square analysis ($\chi^2$). Quantitative data from these statistical analyses was used to determine if there was a significant difference between the effectiveness of conatively balanced teams and conatively unbalanced teams.

Participants were asked to complete five open ended questions at the conclusion of their tasks. Qualitative data from these questionnaires as well as observational data was used to provide descriptive details about the experiences of the participants as they participated in the tasks.

In chapter five the findings from the research analysis will be investigated. The results will be clearly stated. Finally, a review of the recommendations for future research will be discussed.
CHAPTER FIVE

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Until recently, the factory model of education has been the norm for K-12 schools. Students were moved from one teacher to the next until they reached the end of the assembly line. Teachers worked in isolation from one another and had little to no accountability for their teaching (Van Duzer, 2006).

The No Child Left Behind Act has dramatically changed the way schools do business. (Mattos, 2009) Teachers and principals are being held accountable for the progress their students make. The teacher working in isolation is no longer a viable option for schools; therefore schools have turned to professional learning communities as a way of improving student achievement and increasing teacher accountability (DuFour & Eaker, 1998).

One of the components of a professional learning community is the use of collaborative teams (DuFour & Eaker, 1998). These teams meet regularly and use data to attack problems that are hindering student performance. Collaborative teams can be made up of grade level teachers or teachers in a specific subject area. This would suggest that in many cases the people on these teams are indiscriminately thrown together and told to increase student performance with little thought about the individual differences each person brings to the table.

Conation is the instinctive way a person approaches a problem. Kolbe (1997) delineates conation into four distinct action modes. Individuals acting in the Fact Finder action mode seek to gather information. People who act in the Follow Through mode are
methodical and systematic when they attack problems. The Quick Start action mode is characterized by improvisation and innovation. Individuals acting in the Implementor action mode prefer to attack problems through their instinct to demonstrate. Katzenbach and Smith (2003) contended that it is the differences that each individual brings that makes teams effective. The purpose of this study was to determine if a conatively balanced team has an impact on team performance.

Restatement of the Problem

The No Child Left Behind Act or NCLB has significantly changed the way K-12 education is conducted. NCLB was created to close the achievement gap through the increased accountability of schools. Schools that do not meet proficiency standards must improve or face sanctions and penalties. As previously stated, this puts extra demands on schools to become efficient (U.S. Department of Education, 2004).

To become more effective, K-12 educators had to rethink the factory model approach to teaching. Currently, the concept of professional learning communities has been implemented in many K-12 school districts (DuFour & Eaker, 1998). One of the primary constructs of professional learning communities is the collaborative team. Teaching in isolation has been exchanged for an approach focused on learning through collaboration and teamwork. Wise (2004) argued that, “professionals do not work alone, they work in teams…the team delivers the services” (p. 43). While success of collaborative teaming is evident, K-12 education has been slow to embrace the trend (DuFour et. Al., 2005).

Teams are now being used, but are they being used effectively? Katzenbach and Smith (2003) suggested that one of the deciding factors of team effectiveness is based on
the complementary skills of the members. The problem is that there is a lack of research on the use of conatively balanced teams within the K-12 educational setting. Additionally, there is inconclusive evidence to support the relationship between conatively balanced teams and team efficiency, team success, or performance level.

*Purpose of the Study*

The use of professional learning teams in K-12 education is a relatively new concept that has been initiated to increase accountability. One of the major components of professional learning communities is the use of collaborative teams to enhance learning and improve instruction. As previously stated, collaborative teams are typically formed based on content area or grade level with little thought given to the cohesiveness of the individuals or the complementary skills that are needed in order to be effective and successful. Kolbe (2004b) argued that “conative diversity provides the multiplier effect that converts the otherwise limited energy of independent contributors into vastly magnified productivity” (p. 142). It is unknown if a collaborative team that is conatively balanced will be more effective than a collaborative team that is unbalanced.

The purpose of this study was to enhance the knowledge of the use of collaborative teams in the K-12 educational setting and, more specifically, the impact of balancing those teams based on the conative style of the team members. This study sought to determine if a relationship exists between teams that are conatively balanced and those that are conatively unbalanced in terms of their efficiency or ability to complete a task in a timely manner, their capacity to complete a task successfully, and the level of performance exhibited while completing the task.
Design and Procedures

The process for this study involved educators who had taken the Kolbe A index to determine their conative action mode. These educators were then divided into balanced and unbalanced teams according to their action modes. A balanced team consisted of three or more of the four action modes. An unbalanced team was comprised of two or fewer action modes. For the purposes of this study, participants identified as being in transition were not assigned to a team.

Once teams were created, participants were asked to complete team building activities. Three types of team building activities were utilized. The first type was one of efficiency with an objective of finishing a task within a specified amount of time. The second type of activity was one that requires completion of a task. In this activity, success was based solely on whether or not the objective has been achieved. The third type of activity was one which measures the level of performance. This activity required an activity be completed as many times as possible for a score. When teams finished the activities, they were asked to complete a written survey about the experience.

Findings of the Study

The research questions in this study were focused on the effectiveness of a balanced team versus an unbalanced team in regards to three types of activities. The first research question focused on efficiency, the second on completion, and the third on level of performance. The fourth research question consisted of a survey to determine participant perceptions of the teaming process.
Research Question One

Research question one attempted to determine if there was a difference between balanced and unbalanced teams in terms of their efficiency. This was ascertained through the use of three team activities that require efficiency to achieve the desired outcome. The times for these efficiency activities were the dependent variable. The type of team that is participating in the activity was the independent variable and was described as balanced or unbalanced. The analysis of this data was done through a t-test of the independent samples. An alpha level of .05 was used as an acceptable level of significance.

Data collected from the efficiency activities indicate there was a nonsignificant difference between balanced and unbalanced teams in the performance of efficiency activities. Although balanced teams appeared to be more consistent, a team with conative balance was not significantly more efficient than a team that was conatively unbalanced.

Research Question Two

Research question two attempted to discover if there was difference between balanced and unbalanced teams in terms of their successful completion of a task. This was determined when a team either successfully completed the assigned task or failed to complete the assigned task. The dependent variable in this case was whether or not they completed the task. The independent variable was once again the balanced versus unbalanced team. The data was cross tabulated and a chi-square test was run. An alpha level of .05 was used.
A significant interaction was not found thus a conative balance did not play a significant role in successful completion of a task. The data did show a slightly worse completion rate for conatively unbalanced teams; however it was not at a significant level.

*Research Question Three*

Research question three attempted to answer if there is a difference between balanced and unbalanced teams in terms of their level of performance. This was determined by a score that was achieved for the activity. The dependent variable was the score achieved. The independent variable was the type of team. Data was analyzed using an independent samples *t*-test with an alpha level of .05.

An independent samples *t*-test analysis compared the level of performance of a conatively balanced team to that of a conatively unbalanced team. The results revealed that there was a nonsignificant difference between the two groups; however there were two outliers within the data set for balanced teams. It was believed that the two outliers were not reflective of the sample. The two outliers were modified so as not to skew the data. Two groups submitted results that were artificially higher than the other groups which required a modification of the data. Prior to the modification there was the appearance there was a relationship between a conatively balanced team and the level of performance. By modifying the outliers, it brought the mean back to a more realistic norm. A team with conative balance was not significantly more successful at a task than a team that was conatively unbalanced.

*Research Question Four*

Research question four was used to add a qualitative perspective to the study. Open ended questions were used to add descriptive data and participant perspective. Data
from these questions were analyzed using open and axial coding. Examples of these questions can be found in Appendix A.

The participants in this study were arranged into teams of four. Teams one through six were conatively balanced with three or more of the four different action modes present. Teams seven through thirteen were conatively unbalanced with two or fewer of the four different action modes. Members of all teams completed questionnaires once the activities were finished. Each questionnaire contained five open ended questions.

**Balanced teams.** Several common themes were found within the comments made by the balanced teams. Participants described positive interactions as having a major impact on team performance in approximately one third (32%) of their comments. One participant stated, “The team’s performance was enhanced by positive interactions within the team.” Participants described communication in approximately one third (29%) of their responses. One participant on a balanced team stated, “Good communication was the most effective aspect of the team process for our team.” Other themes found, but less frequently, in statements of the participants included cooperation, complimentary skills, organizing or planning, brainstorming, and the use of trial and error. One participant wrote “the problem solving process is very effective because the team uses the strengths of individual team members. What may be difficult to solve alone becomes easier as we worked together.” Another participant stated, “We gave each other ideas and helped compensate when needed.”

**Unbalanced teams.** There were seven unbalanced teams in this study. One team was made up completely of Quick Start action modes, three teams were made up completely of Fact Finder action modes, and three teams were made up completely of
Follow Through action modes. Common themes found in the comments of participants on unbalanced teams were similar to those of balanced teams.

Positive interactions were the most commonly referenced answer in approximately one fourth (24%) of responses. One participant wrote, “Positive praise from each other encourages each team member to try hard and do their best.” Communication was also a common theme with nearly one fourth (23%) of all comments relating to listening or communicating. One participant commented that, “If team members do not communicate it can be a negative experience, but when communication is present it is great to achieve your goals.” Other common themes present, but less prevalent in participant questionnaires were cooperation, organizing or planning, brainstorming, trial and error, and complementary skills. One participant wrote, “You either like someone else’s idea more and use it or strengthen your idea by explaining it.”

One discrepancy in responses made by balanced teams versus unbalanced teams was complimentary skills. Balanced teams commented on this more often than unbalanced teams. One member of a balanced team wrote, “The problem solving process is very effective because the team uses the strengths of individual team members. What becomes difficult to solve alone becomes easier as we worked together.”

Unbalanced teams were disaggregated by action mode which produced some significant results in relation to participant comments. Communication was referred to in approximately one fourth (23%) of comments made by unbalanced teams; however just over three fourths (78%) of those comments were made by participants with a strong Fact Finder action mode. Conversely, communication was not mentioned in any responses made by participants with a Quick Start action mode. Another theme that was of interest
was planning. Participants on unbalanced teams occasionally listed planning in their responses on questionnaires; however nearly all of those responses were made by individuals with a Follow Through action mode. As one participant wrote, “We read directions as a group; we talked out what we would do before starting.” Positive interactions were mentioned in approximately one fourth (24%) of responses made by unbalanced teams, however only one mention of positive interactions was noted by Quick Starts. Additionally, a theme of trial and error was noted in a small number of responses, but not at all with participants having a Fact Finder action mode.

**Discussion**

There is little research to be found on conation and the benefits for teaming, but collaborative teaming in K-12 education is an area that has been studied and continues to be a topic of interest. Lencioni (2005) identifies trust as the most critical component necessary for a team to function effectively. Vulnerability based trust is a type of trust that encourages team members to share personal information with other members in order to build relationships and enhance trust. Sharing a team member’s conative style would be an example of the type of personal information that would build trust. A Myers-Briggs personality typology may accomplish a similar result.

Distributed leadership is another area of research that would benefit from further investigation into conative styles. Spillane (2005) suggests that a distributed leadership perspective is necessary to establish a collaborative culture in a school. Educational leadership programs would benefit from more study in both of these areas.
Limitations and Assumptions

The limitations for this study were relative to the geographical area and design used by the researcher. The results of this study are limited by the following factors:

1. The study was limited to the state of Missouri.
2. The study was limited to only one school district during the 2009-10 school year.
3. The study was limited in the number of participants from each conative action mode.
4. The study was limited to the assumption that participants had no preconceived notions about their conation or that of others.
5. The study was limited to the assumption that participants had no prior knowledge of team building initiatives.
6. The study was limited to the assumption that all surveys were completed by the participant himself or herself.

Implications for Practice

Collaborative teams are becoming more and more prevalent in K-12 education (DuFour, 2005). It is easy to see that careful consideration should be given to team selection, but conation is not the only factor. This study sought to look at several aspects of conation as a guide to forming collaborative teams. It was expected that there would be a significant relationship between balanced teams as identified by conative style and team effectiveness. The results did not support the original hypothesis regarding task efficiency, completion, or level of performance; balanced conation did not show significant impact on team effectiveness. By having conatively balanced teams it was expected that the roles
the individuals played would be distinct and complementary, which together would enhance task performance in these three areas.

What was significant in this study, and that supports the use of conative styles in determining team make-up, were the individual participants’ perceptions of task performance. Participants in a conatively balanced team, reported feeling positive interactions, complementary skills and/or good communication more often than those in unbalanced teams. Those assigned to conatively unbalanced teams reported feeling frustrated. However, it is important to remember that neither balanced nor unbalanced teams performed the tasks any better or differently than the other.

Balanced teams reported positive communication in almost one third (29%) of responses. They indicated communication was important to task completion. Unbalanced teams reported positive communication in one fourth (23%) of their responses. Both teams felt communication was important but in the balanced teams participants felt communication to be more important. Balanced teams felt that complementary skills played a major role in team task performance in some of their responses compared to the unbalanced teams that reported complementary skills were important in a few of their responses.

Balanced teams reported positive interaction in one third (32%) of their responses on questionnaires. Unbalanced teams reported positive interaction in one fourth (24%) of responses on questionnaires. The implications of these results have much more to do with individual perceptions than actual team ability.

Conative styles were not significant in any of these findings; however individual perceptions were noteworthy. This finding was unexpected and is an interesting factor
that would suggest additional research. This result cannot claim that participants’ perceptions were correlated to conative styles and not other variables such as age, physical size, and gender.

Participants’ perception of task performance and related factors is an important and unexpected finding. Examining perceptions and the causes of them might help clarify why some teams are more effective than others. In summary, team effectiveness is as much about perception as it is about complementary skills.

**Recommendations for Future Research**

The findings of this study cannot claim that teams that were conatively balanced performed more effectively than unbalanced teams. Recommendations for further research in this area would include changes such as the use of more of each type of action mode, completion of more difficult tasks, the use of a wider variety of tasks, and the use of participants that are not familiar with each other prior to team assignment.

Qualitative data suggested that participant perceptions were impacted by being on a conatively balanced team versus a conatively unbalanced team. Therefore, when team selection is to be made, organizing balanced teams according to conative styles, and letting team members know each other’s mode of operation, would possibly enhance team interactions. This, then, becomes a fertile area for future research.

In this study it was found:

Kolbe’s Conative Style Index as it relates to group cohesiveness was not supported by the tasks performed by balanced and unbalanced teams. The tasks were a combination of physical and mental team activities. The observations and supporting
results showed no significant differences between performance in any of the group tasks performed.

The team members were not told they were assigned to their respective teams based on their conative style. It is unknown if this might have changed the results of the group’s task results. If it did, then this would suggest another variable that might be a factor to examine in future research.

Perception played a large role in how the team felt about their interaction, communication, and task performance. In this context, perception was found to be a factor because team perception did not match actual performance. The individual groups reported they had positive interaction, felt communication and complementary skills (regardless whether placed in a balanced or unbalanced team) were important to task performance and completion.

Summary

Collaborative teaming is relatively new to K-12 education, yet it is quickly becoming a tool used by many school districts to increase student achievement and teacher accountability. The procedure for team selection is typically one of convenience. It is based on grade level or subject area, which is appropriate, however more attention needs to be paid to the individual strengths that each member brings to the table.

Few research studies have been conducted to examine conation and the impact that a conative balance can have on team effectiveness. While this study was unable to prove a correlation between a conative balance and team effectiveness, it was noted that team member perceptions were improved on a balanced team and frustration was felt by
unbalanced teams. This is an area that should be explored further as a way to improve team effectiveness.
REFERENCES


APPENDIX A

Open Ended Survey Questions

1. How would you describe the problem-solving process?

2. What do you feel was the most significant part of this team or team process?

3. Would you describe the team process as positive or negative? Why?

4. How was task performance affected by team member interactions?

5. What was the most effective aspect of the team process that helped you perform the task successfully?
APPENDIX B

Kolbe A Index

1. If I were solving a difficult problem, I would rely on my:
   A. skills
   B. research
   C. ability to structure
   D. experimentation

2. If I believed something important could be made to help humanity, I would:
   A. investigate it
   B. design it
   C. sell or promote it
   D. build it

3. If I were told to hurry finishing a project, I would:
   A. skip to the bottom line
   B. decide what could be done properly
   C. work diligently until time was up
   D. consider craftsmanship more important

4. If I were trying to get off the hook for something, my arguments would be:
   A. consistent
   B. unique
   C. detailed
   D. technical

5. If I were to win a contest, it would be for:
   A. craftsmanship
   B. neatness
   C. originality
   D. being the most realistic

6. If a task required my best work, I would:
   A. double check results
   B. practice it
   C. take it on as a challenge
   D. do adequate research

7. If I got into trouble, it would be because I:
   A. was bored
   B. couldn’t keep my hands off things
   C. resist change
   D. wanted to know too much

8. If I were deciding whether to use a new method, I would consider its:
   A. practicality
   B. clarity
   C. impact
   D. durability

9. If I were working as a member of a group, I would:
   A. tackle physical tasks
   B. have lots of ideas
   C. be efficient
   D. outline goals and objectives

10. If I had my choice I would work for:
    A. security
    B. upgraded equipment
    C. commissions
    D. a significant title
11. If I can, I avoid:
A. guessing
B. discussions
C. machinery
D. interruptions

12. If I won a prize for artistic effort, it would be for:
A. neatness and interesting patterns
B. realism, perspective or good detail
C. good use of color
D. model building, sculpture

13. If I were teased about a characteristic, it would be:
A. touchiness
B. impulsiveness
C. preciseness
D. predictability

14. If I were demonstrating my talents, it would be with:
A. writing and data
B. diagrams
C. speaking
D. models

15. If I were in charge of a project, I would:
A. meet specifications
B. use quality materials
C. be cost effective
D. add my own ideas

16. If I were working to my greatest potential, my activities would be:
A. varied
B. structured
C. researched
D. demonstrated

17. If I were setting standards, I would find it important that they be:
A. visible
B. uniform
C. flexible
D. measurable

18. If I were criticized, it would be for being too:
A. impatient
B. sensitive
C. structured
D. argumentative

19. If I were assigned one task, I would begin by:
A. probing
B. constructing
C. innovating
D. planning

20. If I were exploring a new object, I would:
A. check how it was made
B. approach it systematically
C. examine it in detail
D. have a strong first impression

21. If I were explaining an idea, I would be:
A. spontaneous
B. methodical
C. technical
D. thorough
22. If communicating an idea, I would:
A. provide written proof
B. use props
C. use imagination
D. use charts and graphs

23. If gathering information, I would:
A. put it in a clear format
B. get thorough background material
C. seek a variety of unusual sources
D. explore physically

24. If I were describing a place I had visited, I would mention:
A. location or placement
B. specifics and details
C. quality of equipment and materials
D. the general atmosphere

25. If I earned recognition, it would probably be for:
A. speed and cleverness
B. strength and endurance
C. dependability and design
D. judgment and accuracy

26. If I were choosing my own work situation, I would:
A. do the work myself
B. have others available for brainstorming
C. be able to delegate
D. have the work flow to me smoothly

27. If free to be myself, I would get things done by:
A. establishing priorities
B. planning ahead
C. quality craftsmanship
D. take on the challenges

28. If I were concentrating on a single effort, I would be:
A. efficient
B. intuitive
C. skillful
D. thorough

29. If I were working on a puzzle, I would try:
A. working against a deadline
B. putting physical pieces together
C. using my memory for facts
D. organizing options

30. If I were asked to prove my point, I would:
A. show it in some form
B. explain my method
C. explain the pros and cons
D. explain the benefits

31. If I could do things my way, they would get done:
A. realistically
B. physically
C. rapidly
D. cautiously

32. If I were setting up a display, I would:
A. do it in an orderly way
B. try clever, unique ways to do it
C. find what worked in the past
D. set it up personally
33. If something in the system didn’t work, I would:
A. work around it
B. repair it
C. find out why
D. report it

34. If I were trying something new, I would learn by:
A. taking chances
B. practicing
C. reading about it
D. follow examples

35. If I were sharing results, my method would be
A. durable
B. exacting
C. coordinated
D. spontaneous

36. If I ran a business, I would:
A. provide steady performance
B. define realistic objectives
C. develop new products or services
D. give high quality workmanship

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APPENDIX C

Team Building Initiatives

Efficiency

**CAN STACK**

**Set up time:** 5 - 10 minutes

**Sequencing:** Core activity

**Props needed:** Remote control device, cans that can stack on top of each other cones to mark boundaries for 2 circles. If this is done outside a board may be needed to stack the cans on.

**Group size:** Small

**Setting:** Indoors in a gym or Outdoors

**Age appropriateness:** All ages

**Approximate Completion time:** 30 – 45 Minutes

Many times the time needed to untangle the remote control device is as long as it takes to do the activity. In an effort to keep a good flow to the day take the time to untangle the remote control device before the group starts. The challenge of this activity is to pick up the cans one at a time from one circle and transport them to another circle in which the group will build a tower as tall as possible with them. The remote control device can only be held at the end of the strings and no one can touch the cans or the center stretch cord. To make the activity more challenging the cans can be set out with the open end up so the group members will need to device a method for turning them over. The distance from the center of the raw material circle to the top of the platform of the building circle should vary according to group’s ability… usually 20 to 30 feet. If a participant steps within the boundary or touches one of the cans, they may be disabled by blindfolding or the loss of some other body part.
CONEHEADS

Set up time: 5 – 10 min.

Sequencing: After a couple of warm up activities

Props needed: Cones, ropes, webbing, bells

Group size: Small to Large

Setting: Indoors or Outdoors

Age appropriateness: All ages

Approximate Completion time: 15 – 30 Minutes

Don’t worry about looking silly….because everyone else looks as silly as you do! The object of Coneheads is for the entire group to go from Point A (starting point) to Point B (ending point) with a cone on their head. There are a few stipulations. Upon entering Point B, the player may not return to the playing area for any reason. If, while in the playing area, a player’s cone falls off his/her head (the cone should be allowed to fall to the ground) then that player is frozen. A player can become unfrozen only when another player, with a cone on their head, replaces the cone on the first player’s head. Of course, when traveling a player may not touch his/her own or anyone else’s cone. For an added challenge, try crossing an obstacle (for example, going under a hanging rope) before arriving at Point B. Remember the goal is for EVERYONE to successfully arrive at Point B.

The level of difficulty for this activity can be controlled by how you set up and use the ropes. The lowest level of challenge would be for the group to just go from the starting circle to the ending circle keeping the cone on their head. For the highest level of challenge the group can pass over 1 rope and under a second. To make it even more challenging attach bells to the ropes and if the group rings the bells then either that person goes back, or making it much more challenging, everyone goes back and starts from the beginning.
TROLLEYS

Set up time: 5 – 10 minutes

Sequencing: Core activity

Props needed: 3 segments of the trolleys, trolley ropes, and markers determining limits

Group size: Small

Setting: Indoors in a gym or Outdoors

Age appropriateness: All ages

Approximate Completion time: 15 – 30 Minutes

Trolleys, also known as giant skis, and are group-walking devices. Each person stands with 1 foot on either of the wooden trolleys. Attached to the trolleys are rope handles for each person to use in the walking process. If you’ve ever tried to step in time with eight other people, you may know some of the delicate intricacies involved. GOOD LUCK!

Detailed Description/Adaptations: The penalties for falling off the trolley can vary according to the group. You may want to let the group decide their penalty. Some options are going back 5 feet for every touch, 3 total touches and back to the start, no penalty for small touches but rather only for the domino effect. You may also lengthen or shorten the course, number of curves, etc. For younger groups you may want to start out using the 3 sections of the trolleys separated and as they learn how to work together as smaller groups then attach the trolleys together and try again. A bell for the last person to ring put at the end of the trolley course can be a nice touch.

Safety/Special Spotting Needs: Do not let participants wrap rope handles around wrists. Be careful of ankle injuries.
Successful Completion of a Task

**TEXAS LIZARD EGG**

**Set up time:** 5 - 10 minutes

**Sequencing:** Core activity

**Props needed:** Bowling ball, enough ropes so that there is 1 for each person.

**Group size:** Small

**Setting:** Indoors in a gym or Outdoors

**Age appropriateness:** Middle school to adult

**Approximate Completion time:** 15 – 30 Minutes

The object is to pick up and move a bowling ball from the starting point into a basket using ropes. Each participant may only use one hand during the entire activity, (Yes, it’s possible). The bowling ball may not be dropped (there’s a baby in there!). If it is dropped, toxins may be emitted and effect group members in the form of blindness, muteness, etc. This may also occur if someone touches his own rope with more than one hand, or someone else’s. By the way, don’t even think of moving the nest. Mother Giant Texas Lizards are highly sensitive to movement of their nests.
KEY PUNCH

Set up time: 10 – 15 minutes

Sequencing: Core activity

Props needed: Numbered Poly spots, large rope.

Group size: Small

Setting: Indoors or Outdoors

Age appropriateness: All ages

Approximate Completion time: 15 – 30 Minutes

You will need 30 gym markers numbered from 1 to 30 with a permanent marker. Enough rope to make a 15’x30’ rectangle on the gym floor or field. Any type of marker will work, plastic circles, plastic tops, Frisbees.

Opening: A militant group of nihilistic hackers have infected a very virulent virus into the government’s socially serious program. You represent the government’s best chance to create a computer-debugging program that will expel the virus and save the government billions of dollars.

To achieve their goal, this highly trained group of viral professionals must physically touch all 30-gym spots in number sequence as quickly as possible.

Directions: Don’t be put off by the length of this description. Key Punch is easy to present and is more difficult to do than it seems.

Make a 15’by30’ rectangle with the rope and place the numbered spot markers (starting with 1), orienting them as illustrated. The plan is to have all even numbers on one side of the rectangle and all odd numbers on the other side. Also zigzag the numbers up and down the rectangle. As you place the numbers, try to arrange them so that your odd/even and zigzag planning is not obvious. Also arrange the pattern so that numbers 1 and 30 are located at the end of the rectangle farthest away from the starting line.

When placing the spots, put them more than one step inside the boundary. This added distance forces the people touching the keypads to step inside the boundary, not just each over the edge. Thirty feet from the end of the gym spotted rectangle, put down a length of tape or rope to designate a starting line and to mark the planning area.

The entire group must begin and finish behind the starting line. The stopwatch starts when the first person steps over the line. Only one person can be on the keyboard at a
time. This is, only one participant can be inside the boundary rope. If two people are inside the rope simultaneously, a glitch occurs and a penalty time is added to the score. If any number is touched out of sequence, this causes the computer to crash and a penalty time is added to the score. Any part of the body may be used to touch each numbered spot in sequence. The team cannot walk back to the computer area between attempts in order to study the number set up. All planning must occur behind the line where the group starts each round. Any time the group or a player crosses this line, it is considered an attempt. Tell the group they have 30 minutes or five attempts, whichever comes first.

Penalties: Something suitably devastating is appropriate so that the group will want to avoid errors. Ten seconds per infraction seems to have a reasonable effect, besides, it’s easy to add the penalty seconds and then adjust the time.
**TRAFFIC JAM**

Set up time: None

**Sequencing:** Usually early in the experience

**Props needed:** One more marker than the number of people in the group, poly spots work well for this activity.

**Group size:** Small

**Setting:** Indoors or Outdoors

**Age appropriateness:** All ages

**Approximate Completion time:** 15 – 20 Minutes

You’ve been there… on the highway, traffic is stopped and all you want is for someone to move! The object of this activity is to work through the human traffic jam with a given set of rules. The two teams are positioned on a line of markers that have one more place than the total number of people. The group attempts to exchange places on this line. What will result…a traffic jam or a free-flowing freeway?

Rules:
- a. Moves are allowed forwards only
- b. You may move ahead either directly into an empty space or around one person facing you into an empty space.
- c. One person moves at a time.
- d. Participants must remain on the markers.

The group will take several tries to do this; eventually finding that one directive leader may be the best way to work through it. If the group can handle an additional challenge, have them try this after figuring out the general solution: have the “leader” or person giving directions stand outside the line (and remove a carpet square). Challenge the whole group to take a deep breath and hold it until the initiative is complete, with only the leader speaking. To make the initiative a bit easier, place the carpet squares in a horse shoe shape instead of a line.
THE BULL RING & CACTUS

Set up time: 5 – 7 minutes

Sequencing: Core activity

Props needed: Bull ring, cactus, starting pole, 3 different sized balls.

Group size: Small

Setting: Indoors in a gym or Outdoors

Age appropriateness: Elementary through Middle school

Approximate Completion time: 10 – 15 Minutes

A four-inch plastic ring with 7 foot cords attached makes the Bull Ring. The Bull Ring starts around a 1 inch vertical tube with a ball on the top. The team is to lift the ball by holding the ends of the cord and removing the ball atop the pole. Once the ball is balanced on the ring, the team transports the ball to a different vertical pole and carefully places the ring around the pole, lowers the ring, and keeps the ball balanced on the pole. This is a very good activity to do with younger participants.

Variations
Shorten the cords to make it easier
Have some blindfolded members holding the cords with instructions coming from a sighted person on the side.
Vary the size of the ball
Use multiple poles to develop a series of moves similar to a miniature golf course. Of course you would want various obstacles along the way.
TEAM JUGGLE

Set up time: None

Sequencing: Very early in the experience

Props needed: At least 3 things that can easily be thrown around a circle, and a stop watch. It is preferable to use soft things like Koosh balls, stuffed animals, anything that isn’t a sports ball that might be thrown to hard.

Group size: Small

Setting: Indoors or Outdoors

Age appropriateness: All ages

Approximate Completion time: 10 – 15 Minutes

Group Juggle can be a goal setting initiative or simply a name game. In both of forms of this activity the group starts out standing in a circle. The goal of the name game is to toss 1 – 3 object from person to person in a specific pattern made by the group. Each person should call out the name of the person they are tossing the object to. To form the pattern an object should go to each person in the circle once. For a goal setting initiative everything is the same as in the name game but there are 2 rules: 1. You have to say the name of the person you are giving the object to and thank you to the person you got it from. 2. You have to keep the same pattern. Ask the group to set a goal, (in terms of time) of how long they think it will take them to repeat the pattern they created with 1 – 3 objects. Once the group has reached consensus on the time then the activity begins by the facilitator (who is part of the circle) tossing the first object to the first person in the pattern. Once the goal has been reached then challenge the group to continue to reduce the time it takes to pass the object around the group staying within the rules. To make it more interesting you may have one object going through the pattern forwards and one object going through the pattern backwards. You may front load this activity with a “manners” theme. Remind them that politeness is important in a group setting. In this vein when the object is received the receiver should respond with a, “Thank you” and the name of the person tossing the object. Example: receiver says, “Thank You Rosie”.

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**GUTTER BALL**

*Set up time:* 1 - 2 minutes

*Sequencing:* Core activity

*Props needed:* 1 gutter for each participant, a ball, a can to put the ball in, something to mark the route

*Group size:* Small

*Setting:* Indoors or Outdoors

*Age appropriateness:* All ages

*Approximate Completion time:* 15 – 30 Minutes

This activity is very much like pipeline. The gutters are much smaller than a full pipeline that uses a tennis ball. Rules for Gutter Ball:

- Gutters cannot ever touch each other.
- Participants cannot move their feet once a ball is in their gutter.
- Once the ball starts it must keep moving in the gutter at all times.
- One person cannot touch another’s gutter.
- Balls must roll from one gutter to another (it cannot be thrown from one gutter to the other).
- A route that has been pre-established by cones, trees and markers must be followed.
- If a ball falls to the ground it must start over.
- If a rule is broken, the collection bucket is moved back one foot.

This initiative is perfect for setting a time goal.
APPENDIX D

INFORMED CONSENT

SUPERINTENDENT

I, (Name_________________________), (District ___________________________), (Date__________) consent to participate in this research project and understand the following:

PROJECT BACKGROUND: This project involves gathering data through the attached surveys and will look into the relationship of a conatively balanced of a team and the effectiveness of the team. The data will be collected for analysis and may be published. You must be at least 18 years of age to participate.

PURPOSE: The purpose of this study is to determine if a relationship exists between the conative balance of a team and the effectiveness of the team.

VOLUNTARY: The survey is entirely voluntary. Participants may refuse to answer any question or choose to withdraw from participation at any time without any penalty or loss of benefits to which you are otherwise entitled.

WHAT DO YOU DO? Sign the consent form allowing participants to participate in the team building initiatives. The activities will be done after school hours and should not take more than 20-30 minutes to complete.

BENEFITS: Your participation in this research project will enrich the information base. A clearer understanding of how conation affects team effectiveness will expand the educational administration knowledge base and inform the work of principals as they attempt to form teams for educational tasks. Additional potential benefits might include foresight into professional development opportunities that could improve a team’s effectiveness by highlighting strengths and strengthening weaknesses, informing the work of leadership preparation programs, and utilization in selection and recruitment of staff dependent upon their conative preference.

RISKS: This project does not involve any risks greater than those encountered in everyday life.

CONFIDENTIALITY: Your confidentiality will be maintained in that a participant’s name will not appear on the survey or in the published study itself. A code number will be assigned so that responses from the Kolbe A Index and the results of the team building initiatives can be matched. The data will only be reported in aggregate form.

INJURY: It is not the policy of the University of Missouri to compensate human subjects in the event the research results in injury. The University of Missouri does have medical, professional and general liability self-insurance coverage for any injury caused by the negligence of its faculty and staff. Within the limitations of the laws of the State of Missouri, the University of Missouri will also provide facilities and medical attention to subjects who suffer injuries while participating in the research projects of the University of Missouri. In the event you have suffered injury as the result of participating in this research project, you are to immediately contact the Campus Institutional Review Board Compliance Officer at (573) 882-9585 and the Risk Management Officer at (573) 882-
3735 to review the matter and provide you further information. This statement is not to be construed as an admission of liability.

Thank you for your assistance in providing current information regarding the possible relationship between conatively balanced teams and team effectiveness. Your efforts are greatly appreciated. If you have any questions regarding the study, please contact me at (417) 274-2607, or bowings@zizzers.org. You may also contact my Faculty Advisor, Dr. Robert Watson, at (417) 836-5392, or RobertWatson@MissouriState.edu. If you have questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585. Thank you in advance for your assistance with this project.

Sincerely,

Bradley S. Owings, Doctoral Candidate
University of Missouri-Columbia
INFORMED CONSENT

PRINCIPAL

I, (Name_________________________), (District ___________________________), (Date__________) consent to participate in this research project and understand the following:

PROJECT BACKGROUND: This project involves gathering data through the attached surveys and will look into the relationship of a conatively balanced of a team and the effectiveness of the team. The data will be collected for analysis and may be published. You must be at least 18 years of age to participate.
PURPOSE: The purpose of this study is to determine if a relationship exists between the conative balance of a team and the effectiveness of the team.
VOLUNTARY: The survey is entirely voluntary. Participants may refuse to answer any question or choose to withdraw from participation at any time without any penalty or loss of benefits to which you are otherwise entitled.
WHAT DO YOU DO? Sign the consent form allowing participants to participate in the team building initiatives. The activities will be done after school hours and should not take more than 20-30 minutes to complete.
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Sincerely,

Bradley S. Owings, Doctoral Candidate
University of Missouri-Columbia
INFORMED CONSENT

TEACHER

I, (Name____________________________), (District___________________________),
(Date_______) consent to participate in this research project and understand the
following:

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surveys and will look into the relationship of a conatively balanced of a team and the
effectiveness of the team. The data will be collected for analysis and may be published.
You must be at least 18 years of age to participate.
PURPOSE: The purpose of this study is to determine if a relationship exists between
the conative balance of a team and the effectiveness of the team.
VOLUNTARY: The survey is entirely voluntary. Participants may refuse to answer any
question or choose to withdraw from participation at any time without any penalty or loss
of benefits to which you are otherwise entitled.
WHAT DO YOU DO? Sign the consent form allowing participants to participate in the
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take more than 20-30 minutes to complete.
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Sincerely,

Bradley S. Owings, Doctoral Candidate
University of Missouri-Columbia
VITA


Brad began his teaching career in Fordland, Missouri at Fordland Elementary School in the fall of 1994 and continued teaching there until 2001. In August of 2001, he began teaching in West Plains, Missouri at West Plains Elementary and South Fork Elementary. Brad began his administrative tenure as the assistant principal of West Plains Middle School in the fall of 2003 and continued in that capacity until 2006. In that year he became the principal of West Plains Elementary School. At the time of this writing, Brad had completed sixteen years in education with seven of those being in administration.

Brad is married to Holly Owings who teaches sixth grade at West Plains Middle School and is the mother of their three children: Grace Owings, Gabe Owings, and Garrison Owings.