12-2015

The Relationship between Middle School Design Implementation and an Open Organizational Climate

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The Relationship between Middle School Design Implementation and an Open Organizational Climate

by

James Russell Lehman

A Dissertation Submitted to the Graduate Faculty of St. Cloud State University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education in Educational Administration and Leadership

December, 2015

Dissertation Committee
John Eller, Chairperson
Frances Kayona
Kay Worner
Roger Worner
Abstract

The concept of middle school design found its origin through the early work of noted curriculum authority, Dr. William Alexander (Lounsbury, 2009). Recognizing the fact that preadolescents represented a time when young people were facing what may be the most difficult time in their lives, he challenged the educational community to provide a different type of instruction. Child-centered in philosophy, and centered around teacher-teacher, teacher-student, and student-student relationships, its central focus is to create a climate for personal growth and intellectual development. By its very nature it requires that people are willing to work together.

The concept of school climate has been recognized by educators for over 100 years. Built around the premise that a positive and sustained school climate is directly related to the kind of relationships you will find in a quality educational setting, the purpose of this study was to examine to what extent relationships of middle school design implementation had on an open organizational climate.

The results of this study indicated a positive teacher relationship between selected concepts of middle school design. The data indicated that each of the seven correlations were significant at either the .01 or .05 level (2-tailed). Moreover, the principal responses showed a positive relationship between all but one of the correlations. The data indicated that five of the correlations were significant at either the .01 or .05 level (2-tailed). Furthermore, the data indicated that although the correlation between Core Curriculum and Advisor/Advisee was not significant, a positive relationship did exist. Finally, a negative relationship existed between the Core Curriculum and Cooperative Learning correlation.
The results of this study indicated a positive teacher relationship between selected dimensions of an open organizational climate. The data indicated that each of the seven correlations were significant at either the .01 or .05 level (2-tailed). Only the correlation between Collegial Teacher Behavior and Disengaged Teacher Behavior showed a negative relationship. Moreover, the principal responses showed a positive relationship between four of the correlations. Furthermore, the data indicated a negative relationship between Collegial Teacher Behavior and Disengaged Teacher Behavior. Finally, no relationship was found between Restrictive Principal Behavior and Committed Teacher Behavior; and Restrictive Principal Behavior and Disengaged Teacher Behavior.

The conclusion of this study supports research and the findings that the upward movement of one variable showed a subsequent upward movement of the other variable. However, it should be recognized that correlations describe relationships between variables but they do not imply causation (Slavin, 2007). The results of this study may prove useful to educators who are genuinely interested in the impact that a “full” middle school design implementation has on an open organizational climate.
Acknowledgements

I would like to begin by acknowledging my Lord and Savior Jesus Christ. Without any way of knowing why He allowed me to complete a journey that had, in all honesty, been relegated to the backroads of my mind, He chose to open a door and extend His grace and guidance to someone who had no reason to expect it. In the end, He would provide me with one of the most rewarding experiences in my lifetime. Thank you Lord!

I would like to thank my dissertation committee members: Dr. John Eller, Chairperson, Dr. Frances Kayona, Dr. Kay Worner, and Dr. Roger Worner. As someone who has experienced a full and rewarding life, I can say without reservation that St. Cloud State University is fortunate that they are part of their faculty. And, less I be remiss, permit me to say that I have enjoyed a special relationship with Dr. John Eller and Dr. Roger Worner. I will not forget you.

I would like to thank my Cohort V colleagues. Their dedication and commitment to the greatest profession in the world has been an inspiration to me. I thank God that you have been part of my life.

I would like to thank Dr. Wayne K. Hoy and Dr. John W. Hannum for their insight on middle school design and an open and healthy organizational climate. Their cooperation in the early stages of my research is greatly appreciated.

I would like to thank Annette Day. As the Director of Graduate Admissions, her insistence that I apply for the doctoral program, in spite of my age, is one of the reasons I can say, “The dream was true.” Thank you for believing in me.
I would like to thank Robin Ewing, Randy Kolb, and Kristi Nobel for their invaluable assistance during the collection of the literature and the analysis of the data. Their unlimited expertise and patience was a key factor in the completion of my dissertation.

I would like to thank my beloved paternal grandparents Clarence and Olga Lehman. At a time when I was not sure what the next day would bring, they wrapped their arms around me and never let go. Words cannot express how much they meant to me.

I would like to thank my beloved father and mother for lighting a fire in me. Mom, who passed away when I was only seven years old, once said, “Jimmie, I hope you become a doctor when you grow up.” Although she was hoping for a medical doctor, I would like to think that she would be pleased. And Dad, who never dated or remarried again, for picking up the pieces and showing me what love, honesty, and integrity was all about. I love you and I will see you in the morning.

I would like to thank my beloved children, Michael, Angela, and Krista, and my precious grandchildren, Breanna, Trent, and Jaelin. It is my prayer that you will never forget Matthew 10: 32-33 and John 14:6. God loves you!

I would like to thank my “little” Buddy. How can I ever forget that special friend who was always there when I needed him? Life has not been the same since you left us. It never will be…

Finally, I would like to thank the greatest earthly gift that God has ever given me. Wife, mother, grandmother, and friend, Linda Elaine (Mogen) Lehman has been the one person that I could always count on. Loving, warm, and always encouraging, YOU have sustained me from the first day we met. I shudder to think what these past 46 years would have been like without you. When all is said and done, you are my hero. I love you, Linda.
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Chapter I: Introduction

School climate refers to the quality and character of school life. More than an individual experience, it is a group phenomenon that is larger than any one person’s experience (Cohen, McCabe, Michelli, & Pickeral, 2009). Safe, caring, participatory, and responsive, school climate fosters greater attachment to school and provides the optimal foundation for social, emotional, and academic learning (Osterman, 2000). People are engaged and respected. Students, families, and educators work together to develop, live and contribute to a shared school vision. Educators model and nurture an attitude that emphasizes the benefits of, and satisfaction from, learning. Each person contributes to the operations of the school as well as the care of the physical environment (National School Climate Council, 2007). Moreover, in a building where a positive school climate exists, there is a feeling of warmth. Banners, posters, and displays signal a sense of pride. Students, staff, and visitors feel they belong; and their sense of safety and security is not threatened (Payne, Conroy, & Racine, 1998). Halpin (1966) said, “Anyone who visits more than a few schools notes quickly how schools differ from one another in their ‘feel’” (p. 131). Furthermore, Eller and Eller (2009) maintain that, “This ‘feel’ permeates through the building from the front office to the classrooms” (p. 4). Thus a positive school climate is a place where attendance is high and student achievement is positively affected, a place where students and teachers are empowered to take risks. Taking these risks not only ensures increased production, but it fosters an essential thinking skill: problem solving. Students and teachers in a school with a positive school climate take pride in identifying and solving problems (Payne et al., 1998).

Norton (1984) found several characteristics served to underline the paramount importance of organizational climate in the school. These characteristics include (a) climate
sets the tone for the school’s approach in meeting stated goals and resolving problems; (b) effective communication necessitates a climate of trust, mutual respect, and clarity of function; (c) climate serves as an important determinant of attitudes toward continuous personal growth and development; and (d) climate conditions the setting for creativity—the generation of new ideas and program improvements. In a direct way, the school environment serves a crucial role in determining what the school is and what it might become.

This We Believe (National Middle School Association, 1995) reported that a positive school climate could head the list of developmentally responsive middle level school characteristics because creating the right atmosphere or environment in a school can make or break the entire school program. Johnson (2002) found that the optimal middle school climate is responsive to the developmental needs of each student, stimulating personal and academic growth. In creating a supportive environment, Flowers, Mertens, & Mulhall (1999) reported that organizational structures such as interdisciplinary teams, common planning times, and advisory periods have a positive impact on student achievement. Moreover, Elmore (2000) determined that the greater extent of middle school implementation the higher level of student performance.

One of the fundamentally important dimensions of school climate is relational and involves how connected people feel to one another in school. School connectedness is a powerful predictor of adolescent health and academic outcomes (Shochet, Dadds, Ham, & Montague, 2006). Hoy and Sabo (1998) found that a healthy middle school climate emerges from combined interactions between staff members and the school community. Parker (2002) said middle schools thrive as they connect all constituents to a belief in and thirsting for success at their school. Swaim (2003) determined that an effective middle school establishes a
climate that cultivates respectful and supportive relationships. Styon and Nyman (2008) noted that creating a healthy school environment for students begins by supporting healthy relationships among staff. Moreover, teachers and administrators who work in partnership reap greater returns in student achievement (Cantwell, 2003). Administrators in effective middle schools prioritize collaboration and shared decision making. In addition, a high level of collaboration among teachers enhances the learning environment (Whitmore, 1997). Furthermore, healthy relationships produce a climate conducive to honesty and open communication (Ames & Miller, 1994).

In conclusion, healthy schools and open climates may well be desirable ends in themselves. They signify organizational configurations that are good working environments, places where people feel comfortable with the purposes of the organization and their capacity to function as professionals. These are places that promote good health because of the cooperative and supportive relationships, the low levels of frustration, high levels of morale, and the expression of real engagement in the task at hand (Hoy, Tarter, & Bliss, 1990). “What is clear is that school climate matters” (Cohen et al., 2009, p. 187).

**Statement of the Problem**

While the concept of organizational climate has been studied for decades, it was not until 2007 that the National School Climate Council consolidated, and formally agreed upon, a definition of school climate. Included in that definition was the dimension of faculty relationships and their impact on the school environment (Cohen et al., 2009). Studies have revealed that fostering relationships among colleagues is not only important, but it is critical to the development of a successful learning environment for students (Hoy, Gage, & Tarter, 2006).
As part of their research on school quality, Hoy and Sabo (1998) studied the relationships between climate and achievement. Using three general indexes of school climate—school health, openness of the principal’s behavior, and openness of the teacher’s behavior they found that openness and health create success in mathematics, reading, and writing for students at the middle school level.

Beginning with the middle school movement of the early ‘60s, Lounsbury (1973) recognized that,

The school for the emerging adolescent does not have to be a complicated place. It ought not to be an “institution,” a teaching factory. It ought to be a center for learning, living and growing; a place especially designed for young people where they are “at home” with friends and peers, with adults who genuinely care about them, surrounded by an array of materials and facilities to support their growth—social, physical, emotional, moral, as well as intellectual. Its classrooms ought not be recitation halls but rooms for thought. (p. 2)

Given the importance of providing a quality education for all adolescent students, the four Minnesota middle schools selected for participation in this study agreed to assess the relationship between middle school design implementation and the dimensions of an open organizational climate. Since limited research has been conducted to support the argument that middle school design implementation is positively related to an open organizational climate, the findings of this study provided the participating schools’ leadership and staff with a framework for subsequent and constructive changes in their schools.

**Purpose of the Study**

According to Zmuda, Kuklis, and Kline (2004), each school is a complex living system with a purpose. Driven by core beliefs that regard every staff member as a trusted colleague, their purpose is to optimize student achievement. It is the core belief (or purpose) that will define this achievement. In that regard, Sergiovanni (2000) found that,
The school values and purposes become the driving force. As this happens, a new hierarchy emerges—one that places ideas at the apex and principals, teachers, parents, and students below as members of a shared fellowship that is committed to serving these ideas. (p. 24)

Toward this end, this study replicated part of a previous research study that hypothesized that the greater the implementation of middle school design, the more open the middle school climate (Hannum, 1994). Due to the fact that limited research had been conducted on this topic, the purpose of this study was to examine to what extent the relationship of middle school design implementation had on an open organizational climate. Quantitative data was used to measure this relationship.

Research Questions

Research questions guide the study and usually provide the structure for presenting the results of the research (Roberts, 2010). According to Slavin (2007), the critical skill in research design is deciding on a question that is important and then choosing research methods that will answer that question as unambiguously as possible.

This study employed a quantitative method of inquiry. Using the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM), data collected from a 50-item Likert-style descriptive questionnaire were analyzed to determine whether or not there was a relationship between middle school design implementation and an open organizational climate. Gangi (2010) confirmed that this climate instrument not only assesses faculty relationships in primary and secondary schools, but it also assesses particular school climate predictors that have found consensus in current research. Secondly, data from a 6-item Likert-style descriptive Middle School Implementation Questionnaire was analyzed to determine
whether or not the implementation of middle school characteristics were positively related to an open school climate.

Based on these assessments, the following research questions were used in this study:

1. To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?

2. What are the principals’ and teachers’ characterization in relationship to the dimensions of an open organizational climate?

3. What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?

**Assumptions of the Study**

This study focused on a selected group of Minnesota middle schools. The assumptions for this study were as follows:

1. The participants of this study will be committed to the concepts of middle school education.

2. The participants of this study will be committed to a positive and productive middle school climate for students, teachers, and administrators.

3. The participants of this study will provide the researcher with honest responses to the respective questionnaires.

4. The participants of this study will view the data analysis as “talking points” in their commitment to middle school improvement and to the quality of middle school education for all students.
Delimitations

According to Roberts (2010), delimitations are the factors of a study that are controlled by the researcher. Selected to represent a population to which the findings can be generalized (Gall, Gall, & Borg, 2003), this study focused on the relationship between middle school design implementation and an open organizational climate. The delimitations for the study were as follows:

1. The study surveyed four middle schools located in central and southeastern Minnesota.
2. The study was limited to middle schools whose middle school concept is a philosophy of education with a special spirit and deep theoretical roots—a set of beliefs about kids, education, and the human experience. Its concept’s ideals and recommendations are direct reflections of its two prime foundations: the nature and needs of young adolescents and the accepted principles of learning.
3. The study was limited to assessing the relationship between middle school design implementation and an open organizational climate.
4. The study surveyed the building principals and members of the teaching staff. In each case, participants completed an Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM) and a Middle School Implementation Questionnaire.
5. The study was limited to middle schools belonging to the Minnesota Association of Secondary School Principals.
6. The study was limited to middle schools with 5-8 or 6-8 grade configurations.
Definition of the Terms

Advisor/Advisee: Advisor/Advisee is a program that promotes increased involvement between teachers and students and provides at least one adult contact with each student in the school who is characterized by warmth, concern, openness and understanding (George & Alexander, 1993).

Block/Flexible Scheduling: Block/Flexible Scheduling allows for at least part of the daily schedule to be organized into larger blocks of time (more than sixty minutes) to allow flexibility for a diversity of instructional activities (Cawelti, 1994).

Collegial Teacher Behavior: Behavior that supports open and professional interactions among teachers. Teachers like, respect, and help one another both professionally and personally (Hoy & Sabo, 1998).

Committed Teacher Behavior: Behavior that is directed toward helping students to develop both socially and intellectually. Teachers work extra hard to insure student success in school (Hoy & Sabo, 1998).

Cooperative Learning: Cooperative Learning is when small groups of learners work together as a team to solve problems, complete a task, or accomplish a common goal (Artz & Newman, 1990).

Core Curriculum: Core Curriculum represents a full academic program geared for the disciplining of young adolescents’ minds. Students are taught to think critically, develop healthful lifestyles, become active citizens, experience an integrated subject matter across disciplines, and to learn as well as to test successfully (Carnegie Council on Adolescent Development, 1989).
**Dependent Variable:** An outcome variable hypothesized to be affected by one or more causes (Slavin, 2007).

**Directive Principal Behavior:** This is rigid domineering behavior. The principal maintains close and constant monitoring over virtually all aspects of teacher behavior in the school (Hoy & Sabo, 1998).

**Disengaged Teacher Behavior:** This behavior signifies a lack of meaning and focus to professional activities. Teachers simply are putting in their time; in fact, they are critical and unaccepting of their colleagues (Hoy & Sabo, 1998).

**Early Adolescents:** Early adolescents are people at the developmental stage of ages 10 to 15 who are evolving in revolutionary ways in multiple areas (physical, cognitive-intellectual, social-emotional, behavioral, psychological and ethical). They are doing so at varying rates of speed, with varying degrees of awareness, and with varying levels of success. As a result, they require educators and learning environments that are aware, supportive, responsive, and compassionate about their unique developmental needs (D. Tomlin, Association for Middle Level Education, personal communication, August 28, 2014).

**Exploration:** Exploration is a part of the curriculum that allows adolescents to ascertain their special interests and aptitudes and engage in activities that broaden their views of the world and themselves (Association for Middle Level Education, 2010).

**Healthy School Climate:** A healthy school climate is characterized by high levels of teacher affiliation, academic emphasis, collegial leadership, resource support, principal influence and institutional integrity (Hoy & Hannum, 1997).

**Independent Variable:** A variable (such as treatment) hypothesized to cause one or more outcomes (dependent variables) (Slavin, 2007).
**Interdisciplinary Teaming:** Interdisciplinary Teaming is a group of teachers from different curricular areas who plan and work together and share the same students for a significant portion of the school day (Flowers et al., 1999).

**Middle School:** The middle school is a concept dedicated to serving preadolescent students through a comprehensive physical, social, emotional, intellectual, and moral program that is both balanced and success oriented (Wiles & Bondi, 1986).

**Middle School Concept/Design:** The middle school concept is a philosophy of education with a special spirit and deep theoretical roots—a set of beliefs about kids, education, and the human experience. Its concept’s ideals and recommendations are direct reflections of its two prime foundations: the nature and needs of young adolescents and the accepted principles of learning (Lounsbury, 2009).

**Open School Climate:** An open school climate is characterized by an environment in which both the teachers’ and principals’ behaviors are unprompted, energetic, goal directed, and supportive. Its distinctive characteristic is its high degree of trust and esprit (spirit) and its low degree of disengagement (Hoy et al., 1990).

**Quantitative Research:** Quantitative research is when researchers collect numerical data or information from individuals or groups and through a statistical analysis determine whether or not there is a relationship among them (Slavin, 2007).

**Relationships:** Relationships reflect the quality and character of school climate. They are represented by positive adult-adult relationships between and among teachers, administrators, and staff; positive adult-student relationships; positive student-student relationships; shared decision making; common academic planning opportunities; diversity
valued, cooperative learning; and mutual support and on-going communication. The staff is enthusiastic about their work and students are engaged about learning (Cohen et al., 2009).

Restrictive Principal Behavior: This is a behavior that hinders rather than facilitates teacher work. The principal burdens teachers with paperwork, committee requirements, and other demands that interfere with their teaching responsibilities (Hoy & Sabo, 1998).

School Climate: School climate represents a pattern of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (National School Climate Council, 2007).

Supportive Principal Behavior: This is a behavior that is directed toward both the social needs and task achievement of the faculty. The principal is helpful, genuinely concerned with teachers, and attempts to motivate by using constructive criticism and by setting an example through hard work (Hoy & Sabo, 1998).

Summary

Quality middle schools do not exist in a vacuum. Although researchers have identified numerous qualities that will have a positive impact on the educational setting, Sergiovanni (2000) found that good schools are unique when he stated that,

They are unique because they reflect the values of the communities they serve. They reflect the beliefs of the teachers who work in them. They reflect the needs of the students they serve. Why is uniqueness important? Because creating a unique school and being part of a unique school helps us feel special and improves our level of commitment. Shared commitments pull people together and create tighter connections among them and between them and the school. And these factors count in helping students learn at higher levels. (p. 23)

Consistent with Sergiovanni’s observations, the goal of this study was to demonstrate that the implementation of middle school design would have a positive relationship on an open organizational climate.
Organization of the Study

The study was presented in five chapters. Chapter I contains the introduction to the study, statement of the problem, purpose of the study, research questions, assumptions of the study, delimitations, definition of terms, summary, and conceptual framework. Chapter II presents a review of the related literature as it pertains to the evolution of a school climate definition, characteristics of middle school design, and perspectives of middle school climate. Chapter III presents the methodology that was used. The topics include the introduction, the purpose of the study, research questions, replication of the study, participants, human subject approval, data collection procedures, data analysis, research design, procedures and timelines, and the summary. Chapter IV details the findings of the study. Finally, Chapter V presents the summary of the data, the conclusions, the discussion, the limitations, and the recommendations for further research and practice.
Chapter II: Review of Literature

School climate is a critical component of effective middle schools (Hoy & Sabo, 1998). Characteristic of an entire organization, climate arises from routine organizational practices that are important to the organization and its members; that emphasizes cooperation, trust, openness, and continuous improvement; and it influences members’ behavior and attitudes (Hoy & Sabo, 1998). Welsh (2000) found that school climate was the unwritten beliefs, values, and attitudes that become the style of interaction between students, teachers, and administrators. Haynes, Emmons, and Ben-Avie (1997) found a healthy school climate to be an important context variable in the psychoeducational development and school adjustment of students; where important ingredients include achievement motivation, equity, and fairness, order and discipline, collaborative decision making, parental involvement, school-community relationships, and student-student and student-teacher relationships; and where a seamless web of support is created for children. Therefore, the purpose of this literature review is threefold: (1) to provide an overview of the evolution of school climate and the research based impact it has on the educational setting, (2) to identify the essential characteristics of middle school design, and (3) to identify multiple perspectives of middle school climate and the impact they have on quality faculty relationships.

The Evolution of School Climate

The concept of school climate has been recognized by educators for over 100 years. Arthur Perry (1908), a high school principal in Brooklyn, New York, made the observation that students were affected by the quality of their surroundings. Concerned not only with the physical attributes of the school, he recognized the importance of the “esprit” (meaning spirit) of the school as well (p. 303).
In the years that followed Perry’s observation, the concept of school climate experienced an evolution. Originating in the late 1950s, as social scientists studied variations in work environments, the concept of organizational climate was developed (Hoy & Sabo, 1998). Although researchers interested in educational organizations, such as Halpin and Croft (1963), were pioneers in their efforts to define and measure dimensions of organizational climate, the utility of the concept was soon recognized by scholars of business organizations (Taguiri, 1968).

Climate was initially conceived as a general notion to express the enduring quality of organizational life (Hoy & Sabo, 1998). Halpin and Croft (1963, pp. 1-3) viewed climate as the “personality” of a school along a continuum from open to closed. Taguiri (1968, p. 23) observed “A particular configuration of enduring characteristics of ecology, milieu, social system, and culture would constitute a climate, as much as a particular configuration of personal characteristics constitute a personality.” Gilmer (1966, p. 57) defined organizational climate as “Those characteristics that distinguish the organization from other organizations and that influence the behavior of people in the organization.” Litwin and Stringer (1968, p. 1) suggested that perception is a critical ingredient of climate and defined it as “A set of measurable properties of the work environment based on the collective perceptions of the people who live and work in the environment and demonstrated to influence their behavior.”

From the 1950s to 2007, researchers and educators continued to be hampered by the lack of consensus on how to define school climate. In the 1970s, Moos and Insel (1974) described school climate as the interaction of human environments and humans within the social and physical aspects of the environment. This description was based on interpersonal relationships, goal orientation/personal growth, and system maintenance/system change.
Rutter, Maughan, Mortimore, Ouston, and Smith (1979) established the notion of “ethos” as an important quality of school climate. This included caring relationships among faculty members and administrators, high expectations for student success, and an emphasis on positive rewards. In the 1980s school climate was largely conceptualized as the ‘whole of a school is more than the sum of its parts’ and the school was viewed as a community (Gangi, 2010, p. 15). In the 1990s Hoy and Miskel (1996, p. 141) described school climate as “A relatively enduring quality of the entire school that is experienced by members, describes their collective perceptions of routine behavior, and affects their attitudes and behavior in the school.”

In 2007 the National School Climate Council formally recommended that school climate and a positive and sustained school climate be defined in the following way: “School climate is based on patterns of people’s experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.” This definition would lead to what the literature called the five dimensions of school climate: (a) safety, (b) relationships, (c) teaching and learning, (d) institutional environment, and (e) the school improvement process (Thapa, Cohen, Guffey, & Higgins-D’Alessandro, 2013, p. 2).

**Impact of Positive School Climate**

Thapa et al. (2013) found that sustained positive school climate is associated with positive child and youth development, effective risk prevention, increased student graduation rates, and greater teacher retention. Wang, Selman, Dishion, and Stormshak (2010) determined that students who perceived a more positive school climate while in sixth grade had a lower frequency of engagement in behavior problems in seventh and eighth grade.
Shindler, Jones, Williams, Taylor, and Cardenas (2009) found that a positive school climate is associated with greater academic achievement, a decrease in student absenteeism (Shochet et al., 2006), lower rates of student suspensions (Lee, Cornell, Gregory, & Fan, 2011; Wu, Pink, Crain, & Moles, 1982), higher student and staff morale (Bryk & Driscoll, 1988), and a place where self-worth, pride, respect, and trust are fostered (Kaplan & Geoffroy, 1990; Kelley, Thornton, & Daugherty, 2005).

Subsequently, a further review of the literature indicates that there are reasons why schools become excellent at what they do. Always promoting a positive climate, “In excellent schools things hang together; a sense of purpose rallies people to a common cause; work has meaning and life is significant; teachers and students work together with spirit; and accomplishments are readily recognized” (Sergiovanni, 2007, p. 6). Zmuda, Kuklis, & Kline (2004) found that,

They are places where systems thinking, collegiality, continuous improvement, and accountability are inextricably linked. The classroom thereby becomes a place where students believe that what they are expected to know and be able to do is challenging, possible, and worthy of the attempt. A place where teachers believe that students have more faith in their own potential when they believe they are capable of meeting teacher expectations. (p. 17)

“Without a climate that creates a harmonious and well-functioning school, a high degree of academic achievement is difficult, if not downright impossible to obtain” (Hoyle, English, & Steffy, 1985, p. 15).

**Impact of Negative School Climate**

Researchers have concluded that schools with a negative school climate have far reaching effects on the educational setting. Damico, Roth, Fradd, and Hankins (1991) found that schools with a negative climate send out negative signals to at-risk students, instilling the
perception that they are unworthy and unable to continue in the educational process. Bearden, Spencer, and Moracco (1989) indicated that student’s perception of themselves, along with the school experience, are paramount to school values and practices, since a negative school climate could actually decrease a students’s motivation for learning. Hoge, Smit, and Hanson (1990) found that a negative school climate is associated with lower student self-esteem.

Schools with a negative school climate prevent teachers, support staff, and administration from being able to model positive citizen-forming behaviors for students (Collaborative for Academic, Social, and Emotional Learning (CASEL), 2008, as cited in Gangi, 2010).

Anderson (1982) confirmed that a poor school climate was associated with higher drop-out rates; students who do not graduate from high school face increased risk of unemployment, poverty, poor health, and involvement in the criminal justice system. Reid (1982) indicated that a negative school climate is associated with higher student absenteeism while Wynn, Carboni, and Patall (2007) reported that schools with negative school climates had higher teacher absenteeism and turnover. Furthermore, Haynes, et al. (1997) stated that any setting that has a negative climate, in which members do not relate well to each other, is a psychologically unsound environment and contributes to poor mental health for all.

**Characteristics of Middle School Design**

In 1963 Dr. William Alexander, a noted curriculum authority, first advanced the term “middle school” (Lounsbury, 2009). Speaking at a Cornell University conference convened to examine the status and future of the junior high school, his presentation entitled, “The Junior High School: A Changing View” focused on curriculum and instruction and provided participants with a thoughtful and challenging proposal to implement a new “middle school” taught by specifically prepared educators who would implement a relevant curriculum and
essential learning processes that were developmentally appropriate for students within this age range.

In describing this vision, Alexander quoted an educational belief statement of the Winnetka, Illinois Public Schools where he had been superintendent:

…Intellectual growth means much more than an increasing competence in the academic content of the curriculum. We must endeavor to stimulate in the child a love for learning, an attitude of inquiry, a passion for truth and beauty, a questioning mind. The learning of right answers is not enough…beyond answers alone, we must help children ask the right questions, and discover their answers through creative thinking, reasoning, judging, and understanding. (Association for Middle Level Education, 2010, pp. 3-4)

The definition of a middle school can vary. Many think of the middle school as a building, others point to a particular grade configuration, and still others claim a distinctive educational philosophy (Hoy & Hannum, 1997). According to the literature, De Vita, Pomerantz, and Wilklin (1970, p. 25) defined it as “A philosophy and belief about children, their unique needs, who they are and how they grow and learn.” Lounsby (1982) saw the middle school as an educational response to the needs and characteristics of adolescents dealing with a full range of intellectual and developmental needs. Wiles and Bondi (1986, p. 38) defined middle school as a “Concept dedicated to serving preadolescents through a comprehensive physical, social, emotional, intellectual, and moral program that is both balanced and success oriented.” George and Alexander (1993) suggested that the middle school may contain several different grade configurations including 5-8, 6-8, and 7-8. Moreover, they defined the middle school as “A school of some three to five years between elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned” (p. 44).
According to Alexander and George (1981), middle schools typically provide different programs and philosophies. They also state that middle schools strive for school programs with interdisciplinary team structures, a child-centered philosophy, heterogeneous groupings for most subjects, specialization of subjects, interdisciplinary activities, an appropriate core curriculum, time and flexibility for exploration, activities structured around the team or unit concept, and teaching strategies geared specifically for young adolescents. Hoffman (1993) noted that the middle school is designed to assist and direct youth who are facing what may be the most difficult period of life; and may represent the last best chance to avoid a diminished future.

In a seminal study on early adolescence and its impact on middle level students, the Carnegie Council on Adolescent Development (1989), in a document entitled, “Turning Points: Preparing American Youth for the 21st Century”, reported that early adolescence is in a very real sense a “turning point” in the educational lives of young people. For most, the period is initiated by puberty, a period of development more rapid than any other phase in life except infancy. Cognitive growth is equally dramatic for many youth, bringing the new capacity to think in more abstract and complex ways than they could as children. Increased sense of self and enhanced capacity for intimate relationships can also emerge in early adolescence. All of these changes represent significant potential in our young people and great opportunity for them and society (Carnegie Council on Adolescent Development, 1989).

Goodenow (1993) reported that early adolescence is the beginning of self-reflectiveness and identity exploration and will lead to new intellectual interests, more self-regulated learning, and a commitment to education as a path toward the future selves they hope to be. Lounsbury (2009) found early adolescence to be a time when students reach a
level of mental maturity that permits them to be analytical, to question, to hypothesize. They are ripe for being immersed in their education in new and meaningful ways, as they are capable of learning and achieving at levels seldom realized. Conversely, Turning Points (Carnegie Council on Adolescent Development, 1989) found early adolescence to be a time of trial and error; a time when substantial numbers of American youth are at risk of reaching adulthood unable to meet adequately the requirements of the workplace, the commitments of relationships in families and with friends, and responsibilities of participation in a democratic society. It is a time when adolescence 15 years of age and younger can become sexually active, risking sexually transmitted diseases or pregnancy; a time in which experimentation with drugs and/or alcohol may lead to permanent addiction. Surrounded only by their equally confused peers, too many students can make poor decisions with harmful or lethal consequences that may be fateful for them as well as society. Moreover, for many adolescents, it is a time that may bring declines in attitudes toward school and commitment to school work (Epstein & McPartland, 1976), in intrinsic and extrinsic motivation (Harter, 1981), and in social comparison as a basis for assessing one’s ability (Keil, McClintock, Kramer, & Platow, 1990).

As part of their study on early adolescence and the middle school student, Turning Points (Carnegie Council on Adolescent Development, 1989) recognized that,

Young adolescents need to see themselves as valued members of a group that offers mutual support and trusting relationships. They need to be able to succeed at something, and to be praised and rewarded for their success. They need to become socially competent individuals who have the skills to cope successfully with the exigencies of everyday life. They need to believe that they have a promising future, and they need the competence to take advantage of real opportunities in a society in which they have a stake. (p. 33)
In recognizing the importance of meeting the needs of early adolescent students, Turning Points (Carnegie Council on Adolescent Development, 1989) found that an emphasis should be placed on creating a climate for personal growth and intellectual development. In addition to the concept of interdisciplinary teaming and its focus on a learning community that nurtures the kind of teacher-student bonds that are the building blocks of the education of the young adolescent, they included the concepts of advisor/advisee, core curriculum, flexible scheduling, exploration, and cooperative learning.

*Interdisciplinary Teaming*

Interdisciplinary Teaming is defined by Flowers (1999, p. 57) as “A group of teachers from different subject areas who plan and work together and who share the same students for a significant part of the school day.” It is intended to create a context that enables students and teachers to know one another better and allows teachers to better support and understand the educational needs of students. George and Alexander (1993) found interdisciplinary teaming to be the key element of a true middle school. This We Believe (Association for Middle Level Education, 2010) reported that the interdisciplinary team of two or more teachers working with a common group of students in a block of time is the signature component of high performing schools, literally the heart of the school from which other desirable programs and experiences evolve. The team is the foundation for a strong learning community characterized by a sense of family. Students and teachers on the team become well acquainted, feel safe, respected and supported, and encouraged to take intellectual risks. Furthermore, research indicates that effective interdisciplinary teams lead to improved student achievement, increased parental contacts, an enhanced school climate, and positive student attitudes. Moreover, teaming has a positive impact on the professional lives of teachers, expanding a
collegial focus. Finally, Flowers et al. (1999) found that teachers in schools that are engaged in teaming feel a strong affiliation and support network with their fellow team members and thus are more satisfied with their working climate.

Turning Points (Carnegie Council on Adolescent Development, 1989) found that teaming creates the kind of learning environment that encourages students to grapple with ideas that may span several disciplines; create the kind of learning climate students need to delve deeply into complex ideas; to create solutions to problems that reflect understanding; and to rely on a small, caring group of adults who work closely with each other to provide coordinated, meaningful, and challenging educational experiences. In addition, teachers report that classroom discipline problems are dramatically reduced through interdisciplinary teaming. Finally, teaming provides a much needed support group for teachers, eliminating the isolation teachers can experience in departmentalized settings.

Advisor/Advisee

According to George and Alexander (1993), the major purpose of the advisor/advisee program is to “Promote increased involvement between teachers and students and to provide at least one adult in school which is characterized by warmth, concern, openness, and understanding” (p. 201). This We Believe (Association for Middle Level Education, 2010) states that each student must have an adult advocate in the school who assumes special responsibility for supporting that student’s academic and personal development. An advisory program that helps students develop respect for staff and others; compassion; a workable set of values; and the goal setting designed for the specific needs of the school’s students. Moreover, the advisory program is designed for the specific culture of the school and community. Serving as the primary liaison between the school and family, the advisor
initiates contact with parents to provide pertinent information about the student’s program and progress; helping families to stay engaged on their children’s education.

A young person entering a middle school for the first time needs to feel a sense of belonging; of being able to form bonds with teachers and classmates; and to trust adults. Students should be able to rely on that adult advocate to help learn from their experiences, comprehend physical changes and changing relations with family and peers, act on their behalf to marshal every school and community resource needed for students to succeed, and help to fashion a promising vision of the future (Carnegie Council on Adolescent Development, 1989). In the end, “Advocacy is not a singular event or a period in the schedule, it is an attitude of caring that translates into actions, big and small, when adults respond to the needs of each young adolescent in their charge” (Association for Middle Level Education, 2010, p. 35).

Core Curriculum

Core Curriculum represents a full academic program for young adolescents. With the primary goal in choosing curricula and teaching methods geared for the disciplining of young adolescents’ minds, that is, their capacity for advice, engaged thinking, students with a disciplined mind can assimilate knowledge, challenge the reliability of evidence, recognize viewpoints or ideas, and ask what-if and suppose-that questions (Carnegie Council on Adolescent Development, 1989). This We Believe (Association for Middle Level Education, 2010) states that curriculum is the primary vehicle for achieving the goals and objectives of the school.

Turning Points (Carnegie Council on Adolescent Development, 1989) stresses that every middle grade school offer a core academic program and should expect every student to
complete the program successfully. With a focus on integrating subject matter across disciplines, it should include English, fine arts, foreign languages, history, literature, grammar, mathematics, science, and social studies. In addition, and in conjunction with state and local authorities, middle grade curriculum instruction should include teaching young adolescents to think critically, develop healthy lifestyles, be active citizens, and test successfully.

Finally, This We Believe (Association for Middle Level Education, 2010) found that an effective middle grades curriculum is distinguished by,

Learning experiences that address societal expectations while appealing to young adolescents and offering them opportunities to pose and answer questions that are important to them. In other words, an effective middle grades curriculum must be challenging, exploratory, integrative, and relevant from both the students’ and teachers’ perspective. (p. 17)

*Block/Flexible Scheduling*

Turning Points (Carnegie Council on Adolescent Development, 1989) stated that a key feature of the transformed middle grades school should be the flexibility in the duration of classes. Because students need time to learn, especially to learn material in depth, teacher teams should be able to change class schedules whenever, in their collective professional judgment, the need exists. They should be able to create blocks of time for instruction that best meets the needs and interests of the students, responds to curriculum priorities, and capitalizes on learning opportunities such as current events. Brown (1981) noted the importance of flexible scheduling in the adaptation of programs to meet the diverse needs in the middle school. He also noted the need for grouping patterns that allow the size of the group to be determined by the learning activity.
This We Believe (Association for Middle Level Education, 2010) stated that blocks of class time enables teaching teams to conduct valuable learning experiences such as field trips, debates, mock trials, community-based service activities, and science experiments not possible in the usual single period. In such a block schedule, a few students can be provided with remedial support and others can be freed to do enrichment activities without interfering with the ongoing program; on occasion, two or three teams or an entire level can meet together during the block. By taking advantage to vary the use of time, space, staff, and grouping arrangements, every student can achieve success.

**Exploration**

According to Turning Points, “Adolescence is typically characterized by exploratory behavior and a need to find constructive expression of their inherent curiosity and exploratory energy” (Carnegie Council on Adolescent Development, 1989, p. 12). Adventuresome and curious explorers by nature, the middle school is the finding place for young adolescents. Therefore, the general approach for the entire curriculum at this level should be exploratory. Exploration, in fact, is the aspect of successful middle school curriculum that most directly and fully reflects the nature and needs of the majority of young adolescents, most of whom are ready for an exploratory process (Association for Middle Level Education, 2010).

The exploratory responsibilities of the middle school is particularly critical. In many respects, this level of school often presents a last chance. If youth pass through early adolescence without broad exploratory experiences, their future lives may be needlessly restricted. Conversely, curriculum that is exploratory has potential career value and also leads to healthy recreational and leisure time pursuits that enrich life and help develop well-rounded, self-sufficient adults. Moreover, exploration is an attitude and approach, not a
classification of content. Adolescents deserve opportunities to ascertain their special interests and aptitudes and engage in activities that broaden their views of the world and themselves (Association for Middle Level Education, 2010).

Cooperative Learning

Capelluti and Stokes (1991) cited the importance of cooperative learning to the improvement of instruction. Cooperative learning helps students learn to work together and take more responsibility for their own growth and the growth of others. This We Believe (Association for Middle Level Education, 2010) found cooperative learning to be a method where teachers of various specialties collaborate and cooperate to design learning activities that ensure appropriative challenges for all students. Moreover, varying forms of group work are used to increase student engagement and achievement, with students being clustered for short periods of time randomly, or by ability, interest, or other criteria. Finally, effective middle grade schools provide experiences, studies, and units, directed either by individual teachers or preferably by teams, that are specifically designed to be integrative; and where all teachers help students see how content and skills learned in school are applicable to their daily lives.

Turning Points (Carnegie Council on Adolescent Development, 1989) found that cooperative learning has been shown to help students to learn course material faster and retain it longer and to develop critical reasoning power more rapidly than working alone. In cooperative learning situations, all students contribute to the group effort; and are taught the importance of encouraging others and working together to solve problems. Moreover, cooperative learning requires students to get to know and work with classmates of different ethnic, racial, and cultural backgrounds, setting the stage for requirements of adult life and for
citizenship in a multi-cultural society. Finally, students in cooperative settings tend to accept disabled classmates more readily than they do in other settings (Carnegie Council on Adolescent Development, 1989).

**Successful Schools for Young Adolescents**

In order to guide and support students in their quest to achieve the major goals of middle level education, the Association for Middle Level Education believes that there are four essential attributes of a successful middle level education that can be realized and achieved best through 16 characteristics. These characteristics are interdependent and, therefore, need to be implemented in concert (Association for Middle Level Education, 2010, p. 13).

According to *This We Believe* (Association for Middle Level Education, 2010), the four *Essential Attributes* are as follows:

1. **Developmentally Responsive**: Using the instinctive nature of young adolescents as the foundation upon which all decisions about school organization, policies, curriculum, instruction, and assessments are made.

2. **Challenging**: Ensure that every student learns and every member of the learning community is held to high expectations.

3. **Empowering**: Providing all students with the knowledge and skills they need to take responsibility for their lives, to address life’s challenges, to function successfully at all levels of society, and to be creators of knowledge.

4. **Equitable**: Advocating for and ensuring every student’s right to learn and providing appropriately challenging and relevant learning opportunities for every student.
According to This We Believe, the 16 Characteristics grouped into three categories are as follows:

Curriculum, Instruction, and Assessment
1. Educators value young adolescents and are prepared to teach them.
2. Students and teachers are engaged in active, purposeful learning.
3. Curriculum is challenging, exploratory, integrative, and relevant.
4. Educators use multiple learning and teaching approaches.
5. Varied and ongoing assessments advance learning as well as measure it.

Leadership and Organization
1. A shared vision developed by all stakeholders guides every decision.
2. Leaders are committed to and knowledgeable about this age group, educational research and best practices.
3. Leaders demonstrate courage and collaboration.
4. Ongoing professional development reflects best educational practices.
5. Organizational structures foster purposeful learning and meaningful relationships.

Culture and Community
1. The school environment is inviting, safe, inclusive, and supportive of all.
2. Every student’s academic and personal development is guided by an adult advocate.
3. Comprehensive guidance and support services meet the needs of young adolescents.
4. Health and wellness are supported in curricula, school-wide programs, and related policies.
5. The school actively involves families in the education of their children.

6. The school includes community and business partners.

Finally, Andrews (2013) reminded the middle school practitioner that,

Young adolescents are much more than subjects to be trained for their future post-secondary and employment careers; they are fully formed human beings in the process of forming many of the values and dispositions that will direct their behavior as adults. They deserve the best we can offer them in all domains of their lives: their schools, their homes, and their communities. (p. 3)

Perspectives of Middle School Climate

Safety and School Climate

According to Maslow (1943), as cited in Thapa et al. (2013), feeling safe-socially, emotionally, intellectually, and physically-is a fundamental human need. A study by Devine and Cohen (2007) found that feeling safe in school powerfully promotes student learning and healthy development. Cohen (2006) noted that to the extent that students feel safe, cared for, appropriately supported, and lovingly “pushed” to learn, academic achievement should increase. Welsh (2001) found that students’ perceptions of respect from their teachers was the most important predictor of perceived safety, victimization experiences, and risk behavior in middle schools. Moreover, adolescents’ perceptions of their teachers as caring and supportive have been linked to higher grade point averages (Goodenow, 1993), achievement growth (Gregory & Weinstein, 2004), and engagement in school (Maehr, 1991). When students feel that their teachers are caring and concerned, they are more likely to seek help (Unnever & Cornell, 2004; Wilson & Deanne, 2001). Help seeking fosters safer schools; victims of bullying who seek help are less likely to experience revictimization (Ladd & Ladd, 2001; Smith, Talamelli, & Cowie, 2004). Conversely, consequences from the lack of a safe environment include depression (Hawker & Boulton, 2000), low academic performance (Holt,
Finkelhor, & Kantor, 2007) and a diminished sense of academic belonging (Holt & Espelage, 2003).

Further adding to the safety-related dimensions of positive school climate are rules and norms. The literature underscores the importance of school rules and perceived fairness in regard to dealing with students’ behavior (Thapa et al., 2013). Bryk and Driscoll (1988) demonstrated that a sense of community in which an extended network of caring adults interact regularly with students and share norms and expectations about their students is related to lower levels of problem behavior. Gottfredson, Gottfredson, Payne, and Gottfredson (2005) found that schools in which rules are effectively enforced or schools with better discipline management have lower rates of student victimization and student delinquency. In addition, adolescents’ perceptions of the clarity and fairness of rules at their school are consistently linked to better behavior (Gottfredson, Gottfredson, & Hybl, 1993; Welsh, 2000). Similar results were found in a national sample of adolescents. Research from the 1995 School Crime Supplement of the National Crime Victimization Survey showed that adolescents who reported greater understanding of school rules and consequences experienced lower school crime and violence (Mayer & Leone, 1999). Conversely, permissive schools that tolerate a wide range of student behavior run the risk of suffering too much disorder, while schools that seem too strict or unfair may elicit antagonistic responses from adolescents who are developmentally inclined to challenge authority and seek autonomy (Mayer & Leone, 1999). Gottfredson and Gottfredson (1985) found that schools with the worst discipline problems were schools where the rules were unclear, unfair, or inconsistently enforced; schools that used ambiguous or indirect responses to student behavior; schools where teachers and administrators did not know the rules or disagreed on responses to student misconduct;
schools that ignored misconduct; and schools where students did not believe in the legitimacy of the rules. Moreover, in schools without supportive norms, structures, and relationships, students are more likely to experience violence, peer victimization, and punitive disciplinary actions, often accompanied by high levels of absenteeism and reduced academic achievement (Astor, Guerra, & Van Acker, 2010).

Relationships and School Climate

Quality schools have as their purpose the continual improvement of learning and teaching (Hoy & Sabo, 1998). Built around relationships that connect one to another, they emphasize colleagueship, professionalism, loyalty, pride, and academic excellence (Hoy & Sabo, 1998). They are safe, caring, participatory and they foster a greater attachment to school and provide the optimal foundation for social, emotional, and academic learning for middle school students (Lee, Smith, Perry, & Smylie, 1999).

The literature shows that in schools where students perceive a better structured school, fair discipline practices and more positive student-teacher relationships, the “probability and frequency of behavior problems” is lower (Gregory & Cornell, 2009; Wang et al., 2010). Jia et al. (2009) found that when Chinese and American students perceived teacher-student support and student-student support, their perceptions were positively associated with self-esteem and grade point average, and negatively associated with depression symptoms. Hoy and Hannum (1997) found that academic achievement in reading, writing, and mathematics is related to the healthy interpersonal dynamics of schools. Furthermore, Skinner and Belmont (1993) found that when teachers support and interact positively with students, the students are more likely to be engaged and act appropriately. They also found that these interactions can
directly affect not only student behavior, but their emotional engagement in the classroom as well.

Effective teacher-student relationships are perhaps the keystone of teaching (Marzano, Frontier, & Livingston, 2011). If sound relationships exist between teacher and students, classroom activities progress more smoothly (Marzano et al., 2011). Ryan, Stiller, and Lynch (1990) found that the quality of students’ relationships with their teachers was significantly associated with students’ sense of autonomy and personal control. Osterman (2000) concluded that achievement increases when students feel acceptance, participate in group processes, and have positive attitudes toward school. Brekelmans, Wubbels, and Creton (1990) found that strategies and behaviors that address teacher-student relationships require a need for a balance between student perceptions that the teacher is in control of the classroom and student perceptions that the teacher is their advocate. Marzano et al. (2011) noted strategies and behaviors devoted to enhancing teacher-student relationships as follows:

1. Understand students’ interests and backgrounds (e.g., the teacher seeks out knowledge about students and uses it to engage in informal and friendly discussions).

2. Using behaviors that indicate affection for students (e.g., the teacher uses humor and friendly banter appropriately with students).

3. Displaying objectivity and control (e.g., the teacher behaves in ways that indicate he or she does not take infractions personally).

The process of teaching and learning is fundamentally relational (Thapa et al., 2013). The patterns of norms, values, and interactions that shape relationships in schools provide an essential element of school climate (Thapa et al., 2013). From a psychological point of view,
relationships refer not only to relationships with others, but relationships with ourselves—how we feel and take care of ourselves (Thapa et al., 2013).

Research tells us that students not only thrive academically in a positive school climate but, so too, do teachers. Tschannen-Moran, Parish, and DiPaola (2006) found that quality teacher/colleague relationships had a positive impact on students’ success. Furthermore, it shows that teachers’ work environment, peer relationships, and feelings of inclusion and respect are important aspects of a positive school climate. In a study of 12 middle schools, Guo (2012) found that the teachers work environment, which may be considered an indicator of teachers’ relationships with each other and school administrators, fully mediated the path from a whole school character intervention to school climate change. Not surprisingly, his findings clearly indicate the critical role that positive adult relationships have on a school climate.

Trust

Over four decades ago, Likert (1967), as cited in Hoffman, Sabo, Bliss, and Hoy (1994), underscored trust as a key element in the interaction-influence process of organizational life. Sergiovanni (1991) suggested that trust is indispensable to moral leadership, and Ouchi (1981) contended that organizational productivity depends on trust; in fact, trust is seen as a fundamental feature of superior-subordinate relations that pervades most successful organizations.

Studies indicate that fostering relationships, particularly trust, among colleagues is not only of utmost importance, but it is critical to the development of a successful learning environment (NWREL, 2003; Hoy et al., 2006). School leaders who demonstrate a strong trust in their faculty have a reciprocal trusting relationship with teachers and parents.
(Tschannen-Moran, 2009). As a result, teachers will likely evidence greater professionalism, including a stronger commitment to their students, greater cooperation with colleagues, more engagement with the teaching task, and the demonstration of greater expertise (Tschannen-Moran, 2009). With greater professionalism and greater trust, their schools are likely to flourish (Tschannen-Moran, 2009).

According to Cunningham and Gresso (1993), trust has been called the “foundation of school effectiveness.” With an expectancy that the words, actions, and promises of another individual, group, or organization can be relied on (Goddard, Tschannen-Moran, & Hoy, 2001; Hoy & Kupersmith, 1985) found that trust in students and parents in elementary schools was critical to school success, that is, such faculty trust was a significant predictor of student achievement even after accounting for student demographic characteristics including socioeconomic status. Hoy (2002) reported that the stronger the faculty trust in students and parents was, the greater the student achievement was; and cooperation between teachers and students and between teachers and parents sets the stage for effective student learning in schools.

Tarter, Sabo, and Hoy (1995) stated that trust is an intrinsic element of the roles and actions that create and preserve the distinctive value patterns of the school. Nanus (1989, p. 101) described it as the “Mortar that binds leader to follower.” Trust promotes innovation, risk taking, and experimentation in schools (Mintzberg, 1989). Trust allows individuals to focus on the task at hand, and therefore, to work and learn more effectively; and is related to a climate of openness, collegiality, professionalism and authenticity (Tschannen-Moran & Hoy, 1998). Additionally, Powell (1990) described trust as “a remarkably efficient lubricant” that reduces the complexities of organizational life and facilitates transactions far more quickly.
and economically than other means of managing. If schools are to prosper and succeed, trust is crucial (Hoy, 2002).

**Collective Efficacy**

Collective efficacy is defined as “The perceptions of teachers in a specific school that the faculty as a whole can execute courses of action required to positively affect student achievement” (Goddard, Hoy, & Woolfolk Hoy, 2000, p. 480). Gibson and Dembo (1984) and Woolfolk and Hoy (1990) established strong links between teacher efficacy and teacher behaviors that foster student achievement. In his study of collective efficacy and student achievement, Bandura (1993) found that student achievement is significantly and positively related to collective efficacy; collective efficacy has a greater effect on student achievement than did student socioeconomic status. Similarly, Goddard, et al. (2000) found that collective efficacy was positively related to differences among schools in student mathematics and reading achievement.

Bandura (1993) noted that classroom atmospheres are partly determined by teachers’ beliefs in their instructional efficacy. Gibson and Dembo (1984) found that teachers who have a high sense of instructional efficacy devote more classroom time to academic learning and mastery experiences, provide students who have difficulty learning with the help they need to succeed, and praise them for their accomplishments. Conversely, teachers who have a low sense of instructional efficacy spend more time on nonacademic pastimes, readily give up on students if they do not get quick results, and criticize them for their failures.

Studies have determined that collective teacher efficacy is associated with increased rates of parental involvement (Hoover-Dempsey, Bassler, & Brissie, 1987), school orderliness and teacher innovation (Newman, Rutter, & Smith, 1989), and decreases in suspensions and
drop-out rates (Esselman & Moore, 1992). Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) found higher teacher efficacy promotes persistence in teacher effort, supports challenging goals, encourages teachers to accept responsibility for student achievement, and enhances teachers’ abilities to overcome temporary setbacks and failures. Hoy, Sweetland, and Smith (2002) found that when collective efficacy is high, a strong focus on academic pursuits not only direct the behavior of the teachers and helps them persist, but it reinforces a pattern of shared beliefs held by other teachers and students. Thus, higher teacher efficacy is related to an orderly and positive school atmosphere; to the health of the organizational climate (Hoy & Woolfolk, 1993).

**Teaching and Learning and School Climate**

Teaching and learning represents one of the most important dimensions of a positive school climate (Thapa et al., 2013). Composed by clearly defined sets of norms, goals, and values that shape the teaching and learning environment, research supports the notion that a positive school climate promotes students’ abilities to learn; and a positive school climate promotes cooperative learning, group cohesion, respect, and mutual trust (Thapa et al., 2013). Ghaith (2003) found these particular aspects of school climate have been shown to directly improve the learning environment. Moreover, studies have shown that when students are encouraged to participate in academic learning, their potential for academic achievement increases (Voelkl, 1995). Furthermore, research has shown that respect and shared expectations positively influence the engagement of students (Ennis, 1998).

A key challenge for 21st century schools involves serving socio-culturally diverse students with varied abilities and motivations for learning (Learning First Alliance, 2001). While some students are academically engaged and participate energetically in class and
extracurricular activities, many students lack social-emotional competencies and become less connected to school as they progress from elementary to middle to high school, and this lack of connection negatively affects their academic performance, behavior, and health (Blum & Libbey, 2004). It is estimated that 40% to 60% of urban, suburban, and rural high school students become chronically disengaged from school—not counting those who already dropped out (Klem & Connell, 2004). Moreover, approximately 30% of high school students participate in or experience multiple high-risk behaviors (e.g., substance use, sex, violence, depression, attempted suicide) that interfere with school performance and jeopardize their potential for success in life (Centers for Disease Control and Prevention, 2008).

Preparing students for success in life requires a broad, balanced education that both ensures their mastery of basic academic skills and also prepares them to become responsible adults (Association for Supervision and Curriculum Development, 2007). It is important for families, schools, and communities to identify and effectively implement research-based approaches that promote children’s social, emotional, and academic engagement and growth in early years of school (Payton et al., 2008). Research conducted during the past few decades indicates that social and emotional learning and character education programming for elementary and middle school students is a very promising approach to reducing problem behaviors, promoting positive adjustments, and enhancing academic performance (Payton et al., 2008).

Social and Emotional Learning

Elias et al. (1997) found social and emotional learning (SEL) as the process of acquiring core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships,
make responsible decisions, and handle interpersonal situations constructively. These critical social-emotional competencies involve skills that enable children to calm themselves when angry, initiate friendships and resolve conflicts respectfully, make ethical and safe choices, and contribute constructively to their community (Collaborative for Academic, Social, and Emotional Learning, 2005).

Higgins-D’Alessandro (2012), referring to social and emotional learning as prosocial education, found it to be a way in which children learn to make friends, learn to work with others—both adults and peers—and begin to know who they are; and where routines of the school and the classroom optimize learning every day through challenging curricula and opportunities for critical thinking, speaking, leadership, and teamwork. Schecter (2011) reported that prosocial education captures the belief that schools should be communities of meaning and of trusting relationships in which each person, students and adults alike, is respected, is supported and encouraged, and feels a part of and responsible to the whole community. Jerome, Hamre, and Pianta (2009) found that prosocial education creates the structures of effective schools and positive school climates that in turn foster students’ overall development and define the conditions upon which optimal learning depends. Warm, challenging, and individual relationships of each child with all of his or her teachers is the keystone provided by prosocial education efforts and interventions; it fulfills the purpose of education, making schools the gateway for every child and adolescent to take strong, sure steps toward adulthood (Jerome et al., 2009). Moreover, Higgins-D’Alessandro (2012) reported that schools that support their students’ growth socially, civically, morally, and emotionally have students who engage intellectually every day in every class and perform academically at their highest levels.
According to Payton et al. (2008), the Collaborative for Academic, Social, and Emotional Learning (CASEL) has identified five groups of interrelated core social and emotional competencies that social and emotional learning (SEL) should address. They include the following:

1. Self-awareness: accurately assessing one’s feelings, interests, values, and strengths; maintain a well-grounded sense of self-confidence;
2. Self-management: regulating one’s emotions to handle stress, controlling impulses, and persevering in addressing challenges; expressing emotions appropriately; and setting and monitoring progress toward personal and academic goals;
3. Social awareness: being able to take the perspective of and empathize with others; recognizing and appreciating individual and group similarities and differences; and recognizing and making best use of family, school and community resources;
4. Relationship skills: establishing and maintaining healthy and rewarding relationships based on cooperation; resisting inappropriate social pressure; preventing, managing, and resolving interpersonal conflict; and seeking help when needed; and
5. Responsible decision making: making decisions based on consideration of ethical standards, safety concerns, appropriate social norms, respect for others, and likely consequences of various actions; applying decision-making skills to academic and social situations; and contributing to the well-being of one’s school and community.
And finally, research indicates that the effective mastery of these competencies should provide a foundation for better adjustment and academic performance as reflected in more positive social behaviors, fewer conduct problems, less emotional stress, and improved test scores and grades (Greenberg et al., 2003). Conversely, the failure to achieve competencies in these areas can lead to a variety of personal, social, and academic difficulties (Guerra & Bradshaw, 2008).

**Character Education**

The Character Education Partnership (CEP) characterizes character education as the intentional effort to develop in young people core ethical and performance values that are widely affirmed across all cultures. Based on a broad range of such concepts as positive school culture, moral education, caring school communities, social-emotional learning, positive youth development, civic education, and service learning, the focus is to promote the intellectual, social, emotional, and ethical development of young people and share a commitment to help them become responsible, caring, and contributing citizens (Character Education Partnership, 2010).

Character education was included as an important objective for the first U.S. schools. Today, it serves not only as a reminder of education’s long history of stressing core values such as respect, integrity, and hard work, but it has been used by educators to transform their schools, improve school culture, increase achievement for all learners, develop global citizens, restore civility, and prevent anti-social and unhealthy behaviors (Character Education Partnership, 2010).

Because students spend so much time at school, our schools offer a critically important opportunity to ensure that they get the support and help they need to reach their full
potential. Schools with high-quality character education are places where students, teachers, and parents want to be (Character Education Partnership, 2010). They are places where young people do their best work because they feel safe, appreciated, supported, and challenged by their peers and the adults around them (Character Education Partnership, 2010).

The claim that quality character education is critically important to academic education is bolstered by findings that educational interventions with character related themes produced a range of effects that are linked to effective schooling including higher achievement scores for elementary school students (Benninga, Berkowitz, Kuehn & Smith, 2003). Hawkins, Catalano, Kosterman, Abbot, and Hill (1999) found that middle and high school students who had participated as elementary students in a character education program had higher course grades and higher academic achievement test scores than students who had not participated in the program. Allen, Philber, Herring, & Kupermine (1997) reported a significant decrease in course failures for students randomly assigned to a secondary school character education program as compared to control group students. Moreover, Taylor, LoSciuoto, Fox, Hilbert, and Sonkowsky (1999) found that Cross Ages, an intergenerational mentoring program, showed a positive impact on high school attendance. Solomon, Battistich, Watson, Schaps, & Lewis (2000) reported that a child development project focusing on pro-social development produced gains in academic motivation, bonding of school, task orientation, and frequency of self-chosen reading in elementary school. Finally, Benninga et al. (2003) found that in high character education/high academic schools staff members model and promote fairness, equity, caring, and respect; and influence students’ moral development not simply by being good role models-important as that is-but also by what they bring to their relationships with students on a day-to-day basis.
Ryan and Bohlin (1999) in their study on building character in schools wrote,

Where does character education fit into the curriculum? The simple answer is: everywhere. Since education seeks to help students develop as persons, character development is part and parcel of the whole enterprise. Teaching, as Alan Tom reminds us, is a moral act. We believe that learning is a moral act as well….Character education then, with its twin goals of intellectual and moral development, should be implicit in all of the school’s undertakings. (pp. 93-94)

Although the literature indicates that there are multiple scripts for effective character education, the Character Education Partnership (CEP) has identified important guiding principles based on the practices of effective schools. Consistent with their philosophy on how best to develop and implement high-quality character education, they have identified eleven principles to serve as guideposts that schools and others responsible for youth character education can use to plan and evaluate their programs. The principles are as follows:

1. Principle 1: The school community promotes core ethical and performance values as the foundation of good character. (1.1) stakeholders select or assent to a set of core values, (1.2) core ethical performance values actively guide every aspect of life in the school, and (1.3) the school community articulates its character-related goals and expectations through visible statements of its core ethical and performance values.

2. Principle 2: The school defines “character” comprehensively to include thinking, feeling, and doing. (2.1) the school helps students acquire a developmentally appropriate understanding of what core values mean in everyday behavior and grasp the reasons why some behaviors (e.g., doing your best and respecting others) represent good character and their opposites do not, (2.2) the school helps students reflect upon the core values, appreciate them, desire to demonstrate them, and
become committed to them, and (2.3) the school helps students practice the core values so that they become habitual patterns of behavior.

3. Principle 3: The school uses a comprehensive, intentional, and proactive approach to character development. (3.1) the school is intentional and proactive in addressing character at all grade levels, (3.2) character education is integrated into academic content and instruction, (3.3) character education is a priority in how teachers conduct their classes, and (3.4) character education is infused throughout the school day in classes, sports, meetings and co-curricular activities.

4. Principle 4: The school creates a caring community. (4.1) the school makes it a high priority to foster caring attachments between students and staff, (4.2) the school makes it a high priority to help students form caring attachments to each other, (4.3) the school takes steps to prevent peer cruelty and violence and deals with it effectively when it occurs, and (4.4) the school makes it a high priority to foster caring attachments among adults within the community.

5. Principle 5: The school provides students with the opportunities for moral action. (5.1) the school sets clear expectations for students to engage in actions that develop and demonstrate good character, (5.2) the school provides all students with varied opportunities for engaging in positive, responsible action within the school, and students engage in these opportunities and reflect on them, and (5.3) the school provides all students with repeated and varied opportunities for making contributions to the larger community, and students engage in these opportunities and reflect on them.
6. Principle 6: The school offers a meaningful and challenging academic curriculum that respects all learners, develops their character, and helps them to succeed. (6.1) the academic curriculum provides meaningful and appropriate challenges to all students, (6.2) the school staff identifies, understands, and accommodates the diverse interests, cultures, and learning needs of all students, and (6.3) teachers promote the development of performance character traits that support students’ intellectual growth, academic performance, and capacity for both self-direction and teamwork.

7. Principle 7: The school fosters students’ self-motivation. (7.1) staff and students recognize and celebrate the natural, beneficial consequences of acts of character rather than rewarding students with material recognition or rewards, and (7.2) the school’s approach to student conduct uses all aspects of behavior management—including rule-setting and rule-enforcement—as opportunities to foster students’ character development, especially their understanding of and commitment to core values.

8. Principle 8: The school staff is an ethical learning community that shares responsibility for character education and adheres to the same core values that guide the students. (8.1) staff model the core values in their interactions with students and each other, and students and parents perceive that they do, (8.2) the school includes all staff in planning, receiving staff development for, and carrying out the school wide character education initiative, and (8.3) the school makes time available for staff planning and reflection in regard to character education.
9. Principle 9: The school fosters shared leadership and long-range support of the character education initiative. (9.1) the school’s character education initiative has leaders, including the school principal, who champion character education efforts, share leadership, and provide long-range support, (9.2) a leadership group or structure (several linked groups) inclusive of staff, students, and parents guides the ongoing planning and implementation of character education initiative and encourages the involvement of the whole school in character-related activities, and (9.3) students are explicitly involved in creating and maintain a sense of community and in other leadership roles that contribute to the character education effort.

10. Principle 10: The school engages families and community members as partners in the character-building effort. (10.1) the school engages families in the character education initiative, (10.2) the administration and faculty regularly communicate with parents and guardians, providing suggestions and activities that help them reinforce the core values, and they survey parents, both formally and informally, on the effectiveness of the school’s character education efforts, and (10.3) the school recruits the help of the wider community.

11. Principle 11: The school regularly assesses its culture and climate, the functioning of its staff as character educators, and the extent to which its students manifest good character. (11.1) the school sets goals and regularly assesses (both quantitatively and qualitatively) its culture, climate, and functioning as an ethical learning community, (11.2) staff members reflect upon and report on their efforts to implement character education, as well as on their growth as character
educators, and (11.3) the school assesses student progress in developing an understanding of and a commitment to good character and the degree to which students act upon the core values.

Service Learning

Morgan and Streb (2001, p. 158) defined service learning as “A method of experiential education in which students apply what they learn in the class to a real-world situation by performing needed community services.” The Carnegie Corporation of New York and Center for Information and Research on Civic Learning and Education (2003, p. 25) expanded on the definition by calling it “An approach to education that uses community services to advance curricular objectives through written assignments and/or discussions that promote reflection on the service experience and connect it to the classroom.” Honig, Kahne, and McLaughlin (2001, p. 1011) said service learning “Connects schools and communities in a deliberate effort to construct learning opportunities for youth.”

Morgan and Streb (2001) reported that service learning projects promote civic education because these activities teach students how to apply classroom material to real life situations. Torney-Purta (2002); Youniss et al. (2002) found that community service and discussions about what kind of service to engage in enhanced the learning environment by providing students with opportunities to participate in and begin forming their own opinions of social and government systems. Melchior (1994) found that students who engaged in high-quality service learning showed an increase in their awareness of community needs, believed that they could make a difference, and were committed to service now and later in life. Moreover, Lindsay (1984) found that participation in extracurricular activities in high school is even more important than educational attainment as a predictor of participation in voluntary
activities as an adult. Conversely, if young people do not become involved in their community in their youth, they are more likely to remain detached when they become adults.

John Dewey (1916) suggested that all genuine education comes about through experiences; and learning occurs best when students are actively involved in their own learning and the learning has a distinct purpose. Morgan and Streb (2001) found if students are engaged in projects of their own, the projects provide them with a real opportunity to succeed in a task that has much greater significance than a quiz or a test. Leming (1998) reported that students who engaged in service learning reported a higher sense of responsibility to their school than did comparison groups. And finally, Ghaith (2003) found that when service learning projects are presented in a collaborative environment, they encourage students to interact and build upon another’s idea.

The research shows that service learning has a direct impact on academic achievement and school commitment. Shumer (1994) found that service learning was associated with higher grades. Akujobi and Simmons (1997) reported that elementary students who participated in service learning scored higher on state tests that measured reading for information and mathematics than nonparticipating students. Melchior (1994) found that students who participated in high-quality service learning showed greater gains in measures of school engagement and in mathematics achievement than control groups. Moreover, Allen et al. (1997) indicated that service learning diminished rates of school suspensions, dropout rates, and school failure.

The Carnegie Corporation of New York and Center for Information and Research of Civil Learning and Education (2003) found that students who participated in quality service learning programs tend to exhibit improved civic skills and attitudes, especially responsibility
for helping others, tolerance, acceptance of diversity, and a lasting commitment to volunteering and other forms of community participation. Based on these findings, the service learning programs that are deemed to be the most effective for civic education are known to be ones that:

1. Encourage teachers and administrators to use them as a way to consciously pursue civic outcomes and not merely to seek improved academic performance or higher self-esteem.

2. Allows students to engage in meaningful work on serious public issues, with a chance of seeing positive results within a reasonable time.

3. Give students a role in choosing and designing their projects and strategies.

4. Provide students with opportunities to reflect on the service work.

5. Link service with academic lessons and the broader curriculum.

6. Allow students—especially older students—to pursue political responses to problems (e.g., contacting local officials), consistent with laws that require public schools to be nonpartisan.

7. Help teachers to address potentially negative attitudes that can arise in service projects, such as a sense of superiority over those served.

8. See this approach as part of a broader philosophy toward education, not just a program that is adopted for a finite period in a particular course.

**Health and School Climate**

The idea of organizational health and its relationship to a quality school is not a recent development. Miles (1969, p. 378) recognized a healthy organization as one that “Not only survives in its environment, but continues to cope adequately over the long haul, and
continuously develops and expands its coping abilities.” Hoy and Miskel (1987) found that a healthy school is one in which the technical, managerial, and institutional levels are in harmony, and the school is meeting its instrumental and expressive needs as it successfully copes with disruptive external forces and directs its energies towards its mission.

Marshall, Pritchard, and Gunderson (2004) noted that healthy organizations had common characteristics. First, they had a constancy of purpose focused on developing learning communities using best practices for teaching and learning, supported by effective training for employees. Activities showed a tight fit so that the primary focus for training was to develop the organizational climate to successfully implement the purpose of the organization (Marshall et al., 2004). And second, healthy organizations understand that education can be improved through active networks of people in different job settings working together in an interconnected system. These networks are built on trust and relationships. The individuals in the network continually revisit, refocus, and redesign the change efforts as part of their operational effectiveness. Moreover, they maintain a strategic position that reinforces their constancy of purpose to serve learners (Marshall et al., 2004).

Argyis (1971) found that in schools with high levels of organizational health the administrators displayed collaborative leadership skills; and saw themselves as team leaders, empowering others to become involved in planning and implementing educational processes. Hoy et al. (1998) found that a healthy school climate is characterized by positive student, teacher, and administrator interrelationships. Teachers like their colleagues, their school, their job, and their students are driven by a quest for academic excellence. They believe in themselves and their students, and set high, but achievable goals. The learning environment is serious and orderly. The principal sets high expectations for teachers and is positive, friendly,
open, and supportive. Conversely, administrators in an unhealthy school climate were generally controlling, lacked trust, and used fear and intimidation in order to hold others accountable (Argyis, 1971). Moreover, Hoy et al. (1998) stated that an unhealthy school climate is marked by conflict and turmoil. No one enjoys being there. Teachers do not like their students, colleagues, or superiors. Principals view teachers with suspicion; and learning and academic achievement are not seen as a priority. It is a dismal place where participants are forced to be rather than want to be.

**Openness and School Climate**

The concept of an open school climate was first conceptualized by Halpin and Croft (1963). Strategizing to develop and validate a descriptive questionnaire that would identify important aspects of teacher-teacher and teacher-principal interactions, their study would lead to the determination that the distinctive feature of an open school climate is its high degree of authenticity. Hoy, Hannum, and Tschannen-Moran (1998) found that in an open school climate teachers as well as principals are “up-front” with each other, supportive, receptive to the ideas of each other, and committed to the task at hand. Furthermore, acts of leadership emerge easily and appropriately as needed and from both teachers and principals. The open school is neither preoccupied exclusively with task achievement nor social-needs satisfaction; both emerge freely (Hoy et al., 1998). Conversely, the close climate is virtually the antithesis of the open climate. The principals and teachers simply go through the motions with the principal showing ineffective leadership and the teachers responding at minimal levels and exhibiting little satisfaction. The principal’s ineffective leadership is seen as close supervision, that is, impersonal, aloof, and inconsiderate. These administrative tactics produce
teacher frustration and apathy. The behavior of both principals and teachers is not genuine; inauthenticity pervades the atmosphere of the school (Hoy et al., 1998).

Based on the conceptual framework of the Halpin and Croft (1963) study, Hoy and Sabo (1998) would establish six dimensions of an open school climate at the middle school level. Recognized by Gangi (2010) as part of a study to select effective assessment measures for school climate, the six dimensions are as follows:

1. Supportive Principal Behavior: The principal’s behavior is directed toward both the social needs and task achievement of the faculty. The principal is helpful, genuinely concerned, and attempts to motivate by using constructive criticism and by setting an example of hard work.

2. Directive Principal Behavior: The principal’s behavior is rigid and domineering. The principal maintains close and constant monitoring over virtually all aspects of teacher behavior in the school.

3. Restrictive Principal Behavior: The principal hinders rather than facilitates teacher work by burdening them with busy work, excessive committee work, and the like.

4. Collegial Teacher Behavior: There is open and professional interaction among teachers. They like each other, respect the expertise of their colleagues, and help each other.

5. Committed Teacher Behavior: Teachers work hard at helping students develop both socially and intellectually. They want students to achieve and are committed to them.
6. Disengaged Teacher Behavior: Teachers are simply putting in their time. They are critical and unaccepting of their colleagues. There is little focus or meaning in their professional activities.

In summary, the concept of school climate has evolved over the years. As was indicated at the onset, Halpin and Croft (1963. pp. 1-3) viewed it as a “personality” of a school along a continuum from open to closed. Rutter et al. (1979) established the notion of “ethos” as an important quality of school climate. Hoy and Miskel (1996, p. 141) described it as “A relatively enduring quality of the entire school that is experienced by members, describes their collective perceptions of routine behavior, and effects their attitudes and behavior in the school.” Gangi (2010, p. 15) reported that school climate was viewed as a community; and was largely conceptualized as ‘the whole of a school is more than the sum of its parts.’ But in the beginning Dr. Arthur C. Perry, Jr. (1908), a principal of Public School Number 85 in Brooklyn, New York probably said it best when he made the declaration that,

This esprit de corps, school atmosphere, pride in the school and thought for its name and honor, is not to be gained in a day. It must become a matter of tradition and, once established, be handed down from one set of students to another. (p. 304)
Chapter III: Methodology

Introduction

According to Zmuda et al. (2004, p. 57), “The purpose of every school is to optimize student achievement.” Moreover, Eller and Eller (2009, p. ix) state that, “Schools today are under pressure to increase student achievement and meet the needs of all students.” Yet, each school year young adolescents from across America walk into schools that are unprepared to meet their respective needs. Motivated by the belief that their school is ready to provide them with the opportunity for educational success, little do they appreciate the fact that the school climate lacks the components that enhance student achievement; a sound organizational structure and supportive institutional relationships. Unfortunately, these missing components are oftentimes the difference between success and failure.

Chapter III contains the introduction, purpose of the study, research questions, replication of the study, participants, human subject approval, data collection procedures, data analysis, research design, procedures and timeline, and the summary. Based on the aforementioned pronouncements, this study focused on the relationship between middle school design implementation and an open middle school climate. Principals and teachers were asked to respond to the dimensions of faculty behavior and to what degree the concept of middle school design was present in the respective school districts.

Open middle school climates are those in which there is reality-centered leadership of the principal, a committed faculty, and no need for burdensome paperwork, close supervision, or a plethora of rules and regulations (Hoy et al., 1990). It is reflected in genuine relationships with teachers where the principal creates an atmosphere of concern and help (high supportiveness) and encourages teacher initiation of professional decision making (low...
directiveness). Open teacher behavior is characterized by sincere, positive, and supportive relationships with students, administrators, and colleagues (high engagement); teachers are committed to the school and success of students (high engagement); the work environment is facilitating, not frustrating (low frustration). In brief, openness in schools refers to climates in which both teachers’ and principals’ behaviors are unprompted, energetic, goal directed, and supportive. Leadership acts emerge spontaneously from both teachers and administrators. Satisfaction is derived from both task accomplishment and need gratification (Hoy et al., 1990).

The middle school concept is a philosophy of education with a special spirit and deep theoretical roots—a set of beliefs about kids, education, and the human experience, and reflects its two prime foundations: the nature and needs of young adolescents and the accepted principles of learning, both undergirded by a commitment to our democratic way of life. Moreover, middle level schools exist to serve diversity (Lounsbury, 2009). Finally, middle schools are organized for the expressive development of students (Hoy & Hannum, 1997).

**Purpose of the Study**

Due to the fact that limited research has been conducted on this topic, the purpose of this study was to examine to what extent the relationship of middle school design implementation had on an open organizational climate. The study used quantitative data to measure this relationship.

**Research Questions**

The following research questions were used in this study:

1. To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?
2. What are the principals’ and teachers’ characterization in relationship to the dimensions of an open organizational climate?

3. What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?

Replication of the Study

The study was a partial replication of John W. Hannum’s doctoral dissertation (1994) entitled: The Organizational Climate of Middle Schools, Teacher Efficacy, and Student Achievement.

Dr. Hannum’s data collection began by surveying 87 middle schools throughout the state of New Jersey. As part of his study, he hypothesized that the greater the implementation of middle school design, the more open the middle school climate (Hannum, 1994). The results of this study were disappointing and demonstrated the need for more research concerning the implementation of middle school variables (Hannum, 1994, p. iii).

By acknowledging that research on the middle school is needed because middle schools may provide the last opportunity for youth to develop those values that will lead to a productive and fulfilling life (Carnegie Council on Adolescent Development, 1989), his study had two general purposes: (1) to identify characteristics of middle schools that foster higher student achievement and more efficacious teaching, and (2) to explore the extent to which middle schools actually embrace a middle school philosophy.

As cited in Roberts (2010, p. 51), “Knowledge accumulates incrementally through studies that build on each other over time, and replication adds strength and clarity to research findings.”
With the aforementioned in mind, the replication of Dr. Hannum’s study was partial in scope. Although his work has added valuable insights to the conduct of an open middle school climate, due to the fact that his study was completed 20 years ago, and due to the fact that this researcher is interested in making some modifications that reflect his own interests, parts of the research was altered by making changes to the original variables.

To begin with, the researcher replicated Dr. Hannum’s study as it pertained to the implementation of middle school design and the openness of school climate in four Minnesota middle schools. Using an instrument (OCDQ-RM) developed by Hoy and associates, the researcher surveyed the six dimensions (subgroups) of an open organizational climate in order to determine whether or not they supported the stated questions. As stated in Gangi (2010), this determination will reflect the faculty relationships in the respective middle schools.

In addition to the dimensions of school climate, the researcher replicated Dr. Hannum’s study as it pertained to the concepts of middle school design. Based on Turing Points (1989) and This We Believe (Association for Middle Level Education, 2010), the researcher asked the principals and teachers to respond to a middle school implementation questionnaire designed by the researcher. These concepts included Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, Block/Flexible Scheduling, Exploration, and Cooperative Learning.

As part of the researcher’s modifications to Dr. Hannum’s study, there was a change in the following variables:

1. Geographic Area: Although the study included rural middle schools, these middle schools were not selected based on socioeconomic status. Rather, they were samples of convenience selected from members of the Minnesota Association of
Secondary School Principals (MASSP). This is a change from Dr. Hannum’s study.

2. Socioeconomic Status (SES): According to Goddard, Tschannen-Moran, and Hoy (2001), faculty trust in students and parents (e.g., trust is part of the relationship concept) is a significant predictor of student achievement even after accounting for demographics including socioeconomic status. Quality relationships are a more powerful predictor of student achievement than socioeconomic status. Therefore, and unlike Dr. Hannum’s study, SES was not part of this study.

3. Teacher Efficacy: According to Hoy and Woolfolk (1993), teacher efficacy is related to organizational climate. Therefore, and unlike Dr. Hannum’s study which established hypotheses for teacher efficacy, the current study viewed teacher efficacy as part of an open school climate.

Participants

The participants for this study were principals and teachers selected in a sample of convenience from four Minnesota middle schools with grade configurations of 5-8 and 6-8. Building principals and members of the teaching faculty were included in the study. According to Slavin (2007, p. 115), “Samples of convenience are usually less problematic in experimental, single-case, and correlational research, where we are interested in relationships between variables.”

Therefore, and beginning with a sample of convenience from rural middle schools belonging to the Minnesota Association of Secondary School Principals (MASSP), the researcher met with respective building principals prior to administering the survey. The meeting included an overview of the study and an opportunity to seek permission to conduct
the study. Middle schools with less than 15 faculty members were not considered for the study.

**Human Subject Approval–Institutional Review Board (IRB)**

The rights of all human subjects were protected throughout this study. Beginning with a series of meetings with the principals of the respective middle schools, the researcher discussed the study and assure them that there would be no foreseeable risks or discomforts associated with the study. Participants would be voluntary and there was nothing to identify individuals who participate in the study. At no time were the participants obligated to answer any question that they did not want to answer.

Finally, a copy of the research findings were provided to each participating school district once the data has been analyzed. In addition, the researcher was available to each of the participating school districts for an oral presentation.

**Data Collection Procedures**

The data collection process began with teachers and school principals at regularly scheduled faculty meetings. The rationale for this format was to explain the importance of candid responses, to ensure that the terms of anonymity were guaranteed, and to conduct the survey in a timely and professional manner. According to Gall et al. (2003), “The purpose of a survey is to use questionnaires or interviews to collect data from a sample that has been selected to represent a population to which the findings of the data analysis can be generalized” (p. 223).

Principals and teachers responded to the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM) developed at Rutgers University by (Hoy & Sabo, 1998). In order to determine the overall openness of middle school climate, a 50-item
Likert-style descriptive questionnaire measuring the six dimensions (subgroups) of openness was used. Each principal and teacher was asked to indicate the extent in which the respective statements characterize their school by circling the appropriate responses. The responses were: Rarely Occurs with a numerical value of 1.0, Sometimes Occurs with a numerical value of 2.0, Often Occurs with a numerical value of 3.0, and Very Frequently Occurs with a numerical value of 4.0. The Alpha coefficients of reliability for the instrument, as determined by Hoy and Sabo (1998), were as follows: Supportive Principal Behavior (.96), Directive Principal Behavior (.88), Restrictive Principal Behavior (.89), Collegial Teacher Behavior (.90), Committed Teacher Behavior (.93), and Disengaged Teacher Behavior (.87). Moreover, the high reliabilities of the subtests suggest that the (OCDQ-RM) is a valid and reliable measure of open school climate.

Finally, principals and teachers completed a Middle School Implementation Questionnaire. In order to determine the degree to which middle school design has been implemented, a 6 item Likert style descriptive questionnaire measuring the dimensions of middle school design was used.

**Data Analysis**

The data analysis began with the researcher assigning numerical scores to each item of the Middle School Implementation Questionnaire. Assigning 1 to Strongly Agree, 2 to Agree, 3 to Disagree, 4 to Strongly Disagree, and 5 to No Opinion, each item was scored for each respondent from each of the four middle schools. When each respondent had been scored, an aggregated school score was calculated for each item. This aggregated school score determined to which degree middle school design had been implemented in the respective
middle schools. Once the scores had been calculated, descriptive statistics were used to determine the mean (M), the standard deviation (SD), and the standard error (SE).

Secondly, the researcher assigned numerical scores to each rating of the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM). Assigning 1 to Rarely Occurs, 2 to Sometimes Occurs, 3 to Often Occurs, and 4 to Very Frequently Occurs, each item will be scored for each respondent. When each respondent had been scored, an aggregated school score was calculated for each item. The aggregated school score for each of the six subgroups represent the climate profile of the school. Once the scores had been calculated, descriptive statistics were used to determine the mean (M), the standard deviation (SD), and the standard error (SE) for each statement on the respective questionnaires.

Finally, a correlation (r) and Cronbach’s coefficient alpha was used. A correlation (r) was used to describe the relationship between selected middle school design variables and selected open organizational climate variables; and Cronbach’s coefficient alpha was used to measure items with weighted multiple answers as well as to determine reliability.

**Research Design**

The research design was according to a quantitative method of inquiry. According to Slavin (2007, p. 7), “In quantitative research, researchers collect numerical data, or information, from individuals or groups and usually subject these data to statistical analyses to determine whether there are relationships among them.” For the purpose of this study, a Likert descriptive questionnaire was used to collect numerical data from principals and teachers belonging to four Minnesota middle schools. The Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM) was used to collect data on the six dimensions (subgroups) of an open organizational climate and a Middle School Implementation
Questionnaire was used to determine the degree of middle school design. The reliability and validity of the instruments have been confirmed by (Hoy & Sabo, 1998).

**Procedures and Timelines**

The research for the study was conducted in February and March of 2015. After selecting the middle schools that were part of the study, the researcher met with the respective middle school principals. Once permission to conduct the study had been obtained, the researcher began the data collection process by distributing the questionnaires through the principals. Upon completion of the questionnaires, the data was collected and analyzed.

**Summary**

The concept of a quality middle school climate is not something new to the educational community. Rather, it has oftentimes been a “talking point” when educators get together to discuss the dynamics of their respective work environments. Perry (1908) could “see” climate in the buildings he observed and Halpin (1966) could “feel” it when he walked in the door. Unfortunately, and due to lack of direction, these perceptions and a subsequent call for change oftentimes become less than productive when it comes time to actually make the kind of changes that educators are searching for.

Therefore, and beginning with the selection of the middle schools, it was the researcher’s goal to complete the collection and analysis of the data in a timely fashion. In addition, it was the researcher’s expectation that the results of the study would answer the stated questions and provide some insight into the kind of climate that is necessary in providing a quality education for middle school students.
Chapter IV: Findings

Purpose of the Study

The purpose of this study was to examine the extent to which middle school design implementation had a relationship with an open organizational climate. The results of this study were compared to a study conducted by Hannum (1994) to determine if the implementation of a middle school philosophy had an impact on the openness of the organizational climate. Moreover, the study investigated the differences and similarities between the principals’ and teachers’ responses on climate and the responses between four Minnesota middle schools. Finally, the study provided the participating schools’ leadership and staff with a framework for subsequent and constructive changes in their schools.

Research Methodology

Chapter IV reports the findings of this study. Initially, the data are organized and analyzed based on the concepts of middle school design implementation and the six dimensions (subtests) of an open organizational climate. Secondly, an analysis was used to determine if there was a significant difference between the principals’ and teachers’ perceptions of the existing middle school design and an open organizational climate. Finally, a comparison was made between four Minnesota middle schools.

The analysis was based on the following research questions:

1. To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?

2. What are the principals’ and teachers’ characterizations in relationship to the dimensions of an open organizational climate?
3. What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?

**Data Collection Instruments**

The data collection instruments for this study were the Middle School Implementation Questionnaire designed by the researcher and the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM) designed by Hoy and Sabo (1998). In order to answer the research questions, principals and teachers from four Minnesota middle schools were asked to identify the degree to which the concepts of middle school design and the dimensions of an open organizational climate are present in their schools. Using quantitative research, the study determined if there were relationships between selected concepts of middle school design and selected dimensions of an open organizational climate.

The Middle School Implementation Questionnaire was used to determine the extent Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, Block/Flexible Scheduling, Exploration, and Cooperative Learning were present in the respective buildings. Principals and teachers were asked to rate on a 6 item Likert style descriptive questionnaire from one to five: 1 = Strongly Agree; 2 = Agree; 3 = Disagree; 4 = Strongly Disagree; 5 = No Opinion. The average completion time was approximately 5 minutes.

The Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM) was used to determine the extent to which the six dimensions (subtests) of organizational climate were present in the respective middle schools. Principals and teachers were asked to rate on a 50 item Likert style descriptive questionnaire from one to four: 1 = Rarely Occurs; 2 = Sometimes Occurs; 3 = Often Occurs; 4 = Very Frequently Occurs the dimensions of Supportive Principal Behavior (questions 1, 10, 11, 12, 15, 19, 24, 32, 36, 44), Directive
Principal Behavior (questions 9, 20, 33, 37, 38, 41), Restrictive Principal Behavior (questions 3, 4, 39, 42), Collegial Teacher Behavior (questions 2, 13, 14, 16, 22, 25, 34, 35, 40, 43, 45), Committed Teacher Behavior (questions 5, 6, 7, 17, 18, 21, 46, 47, 48), and Disengaged Teacher Behavior (questions 8, 23, 26, 27, 28, 29, 30, 31, 50). These six concepts represent the climate profiles of the respective middle schools. The average completion time was approximately 15 minutes.

**Data Analysis**

The analysis of data was done using the Standard Package for the Social Sciences (SPSS). In order to complete the study, principals and teachers were asked to respond to statements that identified each of the six concepts of middle school design and to statements that identified the items that make up the six dimensions (subtests) of an open organizational climate. Quantitative research using descriptive, inferential, and comparative analysis was used.

Descriptive statistics are mathematical techniques employed for the purpose of organizing and summarizing a set of numerical data (Gall et al., 2003). This method was used to determine a mean (M), a standard deviation (SD), and a standard error (SE) for each statement on the Middle School Implementation Questionnaire and for each statement on the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM). In each case, the mean (M), the standard deviation (SD), and the standard error (SE) for teachers provided an aggregated score unique to their respective middle schools. The principals’ scores were individual scores that were reflective of his/her respective middle school.

Inferential statistics was used to compare groups to each other. In order to make these comparisons, a Pearson Correlation (r) was used to determine relationships to items and
subtests by middle school, and Cronbach’s coefficient alpha was used to examine each of the six climate subtests and all of their items.

According to Slavin (2007), a correlation (r) represents the degree to which two variables tend to vary in the same direction or in opposite directions. Therefore, the data analysis used Pearson Correlation (r) to describe the relationship between the degree to which the six concepts of middle school design were present and the six dimensions of an open organizational climate were present. The range of the r value was -1 < r < +1 with an r value of +.7 to +1.0 indicating a strong relationship; an r value of + .35 to + .69 indicating a moderately strong relationship; and an r value of < + .35 indicating a weak or no relationship. The closer the value r is to +1, the stronger is the relationship between the variables. The alpha level that was used to test the significance (2-tailed) of the relationship was $p < .05$.

Cronbach’s coefficient alpha was used as an estimate to measure the reliability of the responses of the Middle School Implementation Questionnaire and the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM).

**Sample Demographics**

The sample survey was limited to principals and teachers of four Minnesota middle schools. As members of the Minnesota Association of Secondary School Principals, each middle school subscribed to the definition that “The middle school concept is a philosophy of education with a special spirit and deep theoretical roots—a set of beliefs about kids, education, and the human experience. Its concept’s ideals and recommendations are direct reflections of its two prime foundations: the nature and needs of young adolescents and the accepted principle of learning” (Lounsbury, 2009, p. 32). Four principals and 224 potential teacher respondents subscribed to this definition.
The survey was undertaken on Friday, February 13, 2015 and concluded on Monday, March 23, 2015. In each case, the potential respondents met at a regularly scheduled faculty meeting and were provided with two questionnaires: a Middle School Implementation Questionnaire and an Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM). After the survey was distributed, the potential respondents were asked to complete the surveys and return them to the middle school office within three days. When the surveys were completed, 157 teachers (71.0%) and three principals (75.0%) completed the surveys. The data for the demographics of the four middle schools are present in Table 1.

Table 1

Demographics of Four Minnesota Middle Schools

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>Middle School Location</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A Principal</td>
<td>1</td>
<td>Southeast</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>37</td>
<td>Southeast</td>
<td>94.9</td>
</tr>
<tr>
<td>Middle School B Principal</td>
<td>1</td>
<td>Central</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>59</td>
<td>Central</td>
<td>90.8</td>
</tr>
<tr>
<td>Middle School C Principal</td>
<td>1</td>
<td>Southeast</td>
<td>00.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>26</td>
<td>Southeast</td>
<td>48.2</td>
</tr>
<tr>
<td>Middle School D Principal</td>
<td>1</td>
<td>Central</td>
<td>100.0</td>
</tr>
<tr>
<td>Teachers</td>
<td>34</td>
<td>Central</td>
<td>54.7</td>
</tr>
</tbody>
</table>

Research Question One

The first research question was designed for the purpose of determining the degree to which four Minnesota middle schools implemented the concepts of middle school design.
This research question was answered by determining the principals’ and teachers’ responses to the degree to which the concept was present in their schools.

In order to determine the mean score for each concept of middle school design, descriptive statistics were used to summarize data from each of the four middle schools. In addition, frequencies were used to show the degree to which the middle school design was present in each of the four middle schools.

Finally, Cronbach’s alpha was used to estimate the reliability of the survey. Due to the small number of items (n = 6) on the Middle School Implementation Questionnaire, a .53 coefficient indicated a low internal reliability.

**Research Question One:** To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?

The research question was answered through an analysis of responses to the survey questions related to the degree that middle school design was present in four Minnesota middle schools. Tables 2 through 9 show the results of the individual schools.

Table 2

*Principal and Teachers Reported Mean Score of the Degree that Middle School Design is Present in Middle School A*

<table>
<thead>
<tr>
<th>School Information</th>
<th>PS</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle School A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interscndiplinary Teaming</td>
<td>2.0</td>
<td>37</td>
<td>94.5</td>
<td>1.65</td>
<td>0.79</td>
<td>0.13</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>1.0</td>
<td>37</td>
<td>94.5</td>
<td>1.68</td>
<td>0.78</td>
<td>0.13</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>2.0</td>
<td>37</td>
<td>94.5</td>
<td>1.68</td>
<td>0.63</td>
<td>0.10</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>1.0</td>
<td>37</td>
<td>94.5</td>
<td>3.03</td>
<td>1.19</td>
<td>0.20</td>
</tr>
<tr>
<td>Exploration</td>
<td>3.0</td>
<td>37</td>
<td>94.5</td>
<td>2.68</td>
<td>0.97</td>
<td>0.10</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>2.0</td>
<td>37</td>
<td>94.5</td>
<td>1.89</td>
<td>0.66</td>
<td>0.11</td>
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</tbody>
</table>

PS=Principal Mean Score
Table 2 show the mean and standard deviation of the principal’s and teachers’ reported degree that middle school design was present in Middle School A. The principal’s mean score for Interdisciplinary Teaming was \(M = 2.0\), Core Curriculum \(M = 2.0\), Block/Flexible Scheduling \(M = 1.0\), Exploration \(M = 3.0\), and Cooperative Learning \(M = 2.0\). The teachers’ mean score for Interdisciplinary Teaming was \(M = 1.65\), Core Curriculum \(M = 1.68\), Block/Flexible Scheduling \(M = 3.03\), Exploration \(M = 2.68\), and Cooperative Learning \(M = 1.89\).

Table 3

*Teachers Reported Frequency Responses of the Degree that Middle School Design is Present in Middle School A*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Teaming</td>
<td>37</td>
<td>51.4</td>
<td>35.1</td>
<td>10.8</td>
<td>2.7</td>
<td>0</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>37</td>
<td>43.2</td>
<td>51.4</td>
<td>2.7</td>
<td>0.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>37</td>
<td>37.8</td>
<td>59.5</td>
<td>0.0</td>
<td>2.7</td>
<td>0</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>37</td>
<td>8.1</td>
<td>32.4</td>
<td>18.9</td>
<td>29.7</td>
<td>10.8</td>
</tr>
<tr>
<td>Exploration</td>
<td>37</td>
<td>2.7</td>
<td>51.4</td>
<td>29.7</td>
<td>8.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>37</td>
<td>24.3</td>
<td>64.9</td>
<td>8.1</td>
<td>2.7</td>
<td>0</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion

Table 3 data show the teachers’ frequency responses on the degree to which the middle school design was present in Middle School A. The data reveal that 86.5% of the teachers strongly agreed or agreed that Interdisciplinary Teaming is present, 94.6% strongly agreed or agreed that Advisor/Advisee was present, 97.3% strongly agreed or agreed that Core Curriculum was present, 48.6% disagreed or strongly disagreed that Block/Flexible Scheduling was present, 37.8% disagreed or strongly disagreed that Exploration was present, and 89.2% strongly agreed or agreed that Cooperative Learning was present.
Table 4

Principal and Teachers Reported Mean Score of the Degree that Middle School Design is Present in Middle School B

<table>
<thead>
<tr>
<th>School Information</th>
<th>PS</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
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</thead>
<tbody>
<tr>
<td>Middle School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>2.0</td>
<td>59</td>
<td>90.8</td>
<td>1.80</td>
<td>0.85</td>
<td>0.11</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>2.0</td>
<td>59</td>
<td>90.8</td>
<td>1.42</td>
<td>0.70</td>
<td>0.09</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>2.0</td>
<td>59</td>
<td>90.8</td>
<td>1.53</td>
<td>0.54</td>
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<td>Block/Flexible Scheduling</td>
<td>3.0</td>
<td>59</td>
<td>90.8</td>
<td>3.73</td>
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<tr>
<td>Exploration</td>
<td>3.0</td>
<td>59</td>
<td>90.8</td>
<td>2.68</td>
<td>1.01</td>
<td>0.13</td>
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<tr>
<td>Cooperative Learning</td>
<td>1.0</td>
<td>59</td>
<td>90.8</td>
<td>1.61</td>
<td>0.67</td>
<td>0.09</td>
</tr>
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</table>

Table 4 shows the mean and standard deviation on the principal’s and teachers’ reported degree to which the middle school design was present in Middle School B. The principal’s mean score for Interdisciplinary Teaming was (M = 2.0), Advisor/Advisee (M = 2.0), Core Curriculum (M = 2.0), Block/Flexible Scheduling (M = 3.0), and Cooperative Learning (M = 1.0). The teachers’ mean score for Interdisciplinary Teaming was (M = 1.80), Advisor/Advisee (M = 1.42), Core Curriculum (M = 1.53), Block/Flexible Scheduling (M = 3.73), and Cooperative Learning (M = 1.61).
Table 5

*Teachers Reported Frequency Responses of the Degree that Middle School Design is Present in Middle School B*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>59</td>
<td>37.3</td>
<td>52.5</td>
<td>6.8</td>
<td>0.0</td>
<td>3.4</td>
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<tr>
<td>Advisor/Advisee</td>
<td>59</td>
<td>64.4</td>
<td>32.2</td>
<td>1.7</td>
<td>0.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>59</td>
<td>49.2</td>
<td>49.2</td>
<td>1.7</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Block/Flexible Scheduling</td>
<td>59</td>
<td>1.7</td>
<td>5.1</td>
<td>28.8</td>
<td>47.5</td>
<td>16.9</td>
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<td>Exploration</td>
<td>59</td>
<td>3.4</td>
<td>55.9</td>
<td>15.3</td>
<td>20.3</td>
<td>5.1</td>
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<tr>
<td>Cooperative Learning</td>
<td>59</td>
<td>44.1</td>
<td>54.2</td>
<td>0.0</td>
<td>0.0</td>
<td>1.7</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion

Table 5 data shows the teachers’ frequency responses to the degree that middle school design was present in Middle School B. The data shows that 89.8% of the teachers strongly agreed or agreed that Interdisciplinary Teaming was present, 96.6% strongly agreed or agreed that Advisor/Advisee was present, 98.4% strongly agreed or agreed that Core Curriculum was present, 76.3% disagreed or strongly disagreed that Block/Flexible Scheduling was present, 35.6% disagreed or strongly disagreed that Exploration was present, and 98.3% strongly agreed or agreed that Cooperative Learning was present.
Table 6

Principal and Teachers Reported Mean Score of the Degree that Middle School Design is Present in Middle School C

<table>
<thead>
<tr>
<th>School Information</th>
<th>PS</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School C</td>
<td></td>
<td></td>
<td>Interdisciplinary Teaming</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
<td>3.69</td>
<td>0.97</td>
<td>0.19</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
<td>2.15</td>
<td>1.01</td>
<td>0.20</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
<td>3.62</td>
<td>0.94</td>
<td>0.19</td>
</tr>
<tr>
<td>Exploration</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
<td>2.50</td>
<td>0.81</td>
<td>0.16</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>0.0</td>
<td>26</td>
<td>46.4</td>
<td>1.85</td>
<td>0.73</td>
<td>0.14</td>
</tr>
</tbody>
</table>

PS–Principal Mean Score

Table 6 shows the mean score and standard deviation of the teachers’ reported degree that middle school design was present in Middle School C. The principal chose not to respond to either of the survey questionnaires. The teachers’ mean score for Interdisciplinary Teaming was (M = 2.77), Advisor/Advisee (M = 3.69), Core Curriculum (M = 2.15), Block/Flexible Scheduling (M = 3.62), Exploration (M = 2.50), and Cooperative Learning (M = 1.85)

Table 7

Teachers Reported Frequency Responses of the Degree that Middle School Design is Present in Middle School C

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Teaming</td>
<td>26</td>
<td>11.5</td>
<td>30.8</td>
<td>30.8</td>
<td>23.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>26</td>
<td>3.8</td>
<td>3.8</td>
<td>30.8</td>
<td>42.3</td>
<td>19.2</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>26</td>
<td>23.1</td>
<td>53.8</td>
<td>11.5</td>
<td>7.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>26</td>
<td>3.8</td>
<td>3.8</td>
<td>34.6</td>
<td>42.3</td>
<td>15.4</td>
</tr>
<tr>
<td>Exploration</td>
<td>26</td>
<td>0.0</td>
<td>65.4</td>
<td>23.1</td>
<td>7.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>26</td>
<td>30.8</td>
<td>57.7</td>
<td>7.7</td>
<td>3.8</td>
<td>0.0</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion
Table 7 data show the teachers’ frequency responses to the degree that middle school design was present in Middle School C. The data indicate that 42.3% of the teachers strongly agreed or agreed that Interdisciplinary Teaming was present and 53.9% disagreed or strongly disagreed that Interdisciplinary Teaming was present, 73.1% disagreed or strongly disagreed that Advisor/Advisee was present, 76.9% strongly agreed or agreed that Core Curriculum was present, 76.9% disagreed or strongly disagreed that Block/Flexible Scheduling was present, 65.4% agreed that Exploration was present and 30.8% disagreed or strongly disagreed that Exploration was present, and 88.5% strongly agreed or agreed that Cooperative Learning was present.

Table 8

Principal and Teachers Reported Mean Score of the Degree that Middle School Design is Present in Middle School D

<table>
<thead>
<tr>
<th>School Information</th>
<th>PS</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>2.0</td>
<td>34</td>
<td>53.1</td>
<td>1.91</td>
<td>0.83</td>
<td>0.14</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>1.0</td>
<td>34</td>
<td>53.1</td>
<td>2.00</td>
<td>1.18</td>
<td>0.20</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>1.0</td>
<td>34</td>
<td>53.1</td>
<td>1.74</td>
<td>0.79</td>
<td>0.14</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>2.0</td>
<td>34</td>
<td>53.1</td>
<td>4.18</td>
<td>0.63</td>
<td>0.11</td>
</tr>
<tr>
<td>Exploration</td>
<td>1.0</td>
<td>34</td>
<td>53.1</td>
<td>2.21</td>
<td>0.95</td>
<td>0.16</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>2.0</td>
<td>34</td>
<td>53.1</td>
<td>1.91</td>
<td>0.75</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Table 8 data shows the mean and standard deviation of the principal’s and teachers’ reported degree that middle school design was present in Middle School D. The principal’s mean score for Interdisciplinary Teaming was (M = 2.0), Advisor/Advisee (M = 1.0), Core Curriculum (M = 1.0), Block/Flexible Scheduling (M = 2.0), Exploration (M = 1.0), and Cooperative Learning (M = 2.0). The teachers’ mean score for Interdisciplinary Teaming was
(M = 1.91), Advisor/Advisee (M = 2.0), Core Curriculum (M = 1.74), Block/Flexible Scheduling (M = 4.18), Exploration (M = 2.21), and Cooperative Learning (M = 1.91).

Table 9

*Teachers Reported Frequency Responses of the Degree that Middle School Design is Present in Middle School D*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>34</td>
<td>29.4</td>
<td>55.9</td>
<td>11.8</td>
<td>0</td>
<td>2.9</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>34</td>
<td>38.2</td>
<td>44.1</td>
<td>5.9</td>
<td>2.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>34</td>
<td>38.2</td>
<td>55.9</td>
<td>2.9</td>
<td>0</td>
<td>2.9</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>34</td>
<td>0.0</td>
<td>0.0</td>
<td>11.8</td>
<td>58.8</td>
<td>29.4</td>
</tr>
<tr>
<td>Exploration</td>
<td>34</td>
<td>17.6</td>
<td>58.8</td>
<td>11.8</td>
<td>8.8</td>
<td>2.9</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>34</td>
<td>23.5</td>
<td>67.6</td>
<td>5.9</td>
<td>0</td>
<td>2.9</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion

Table 9 data show the teacher’s frequency responses to the degree that middle school design was present in Middle School D. The data indicates that 85.3% of the teachers strongly agreed or agreed that Interdisciplinary Teaming was present, 82.3% strongly agreed or agreed that Advisor/Advisee was present, 94.1% strongly agreed or agreed that Core Curriculum was present, 70.6% disagreed or strongly disagreed that Block/Flexible Scheduling was present and 29.4% had no opinion on whether or not Block/Flexible Scheduling was present, 76.4% strong agreed or agreed that Exploration was present and 20.6% disagreed or strongly disagreed that Exploration was present, and 91.1% strongly agreed or agreed that Cooperative Learning was present.

Tables 10 through 12 show the combined results of all middle schools.
Table 10

*Principals and Teachers Reported Mean Score of the Degree that Middle School Design is Present across All Middle Schools*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Middle Schools</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>75.0</td>
<td>2.00</td>
<td>.000</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>1.95</td>
<td>.942</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>75.0</td>
<td>1.33</td>
<td>.577</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>1.99</td>
<td></td>
</tr>
<tr>
<td>Core Curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal</td>
<td>3</td>
<td>75.0</td>
<td>1.67</td>
<td>.577</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>1.71</td>
<td>.736</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>75.0</td>
<td>2.00</td>
<td>1.000</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>3.64</td>
<td>.996</td>
</tr>
<tr>
<td>Exploration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>75.0</td>
<td>2.33</td>
<td>1.155</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>2.54</td>
<td>.966</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>75.0</td>
<td>1.67</td>
<td>.577</td>
</tr>
<tr>
<td>Teachers</td>
<td>156</td>
<td>71.0</td>
<td>1.78</td>
<td>.703</td>
</tr>
</tbody>
</table>

Table 10 shows the mean and standard deviation of the principals and teachers reported degree that middle school design was present across all schools. The Principals’ mean scores for Interdisciplinary Teaming was (M = 2.00), Advisor/Advisee (M = 1.33), Core Curriculum (M = 1.67), Block/Flexible Scheduling (M = 2.00), Exploration (M = 2.33), and Cooperative Learning (M = 1.67). The teachers’ mean scores for Interdisciplinary Teaming was (M = 1.95), Advisor/Advisee (M = 1.99), Core Curriculum (M = 1.71), Block/Flexible
Scheduling (M = 3.64), Exploration (M = 2.54), and Cooperative Learning (M = 1.78). The principals’ mean scores did not include Middle School C.

Table 11

*Teachers Reported Frequency Responses of the Degree that Middle School Design is Present across All Middle Schools*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Middle Schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>156</td>
<td>34.6</td>
<td>45.5</td>
<td>12.8</td>
<td>4.5</td>
<td>2.6</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>156</td>
<td>43.6</td>
<td>34.6</td>
<td>7.7</td>
<td>7.7</td>
<td>6.4</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>156</td>
<td>39.7</td>
<td>53.8</td>
<td>3.2</td>
<td>1.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>156</td>
<td>3.2</td>
<td>10.3</td>
<td>23.7</td>
<td>44.9</td>
<td>17.9</td>
</tr>
<tr>
<td>Exploration</td>
<td>156</td>
<td>5.8</td>
<td>57.1</td>
<td>19.2</td>
<td>12.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>156</td>
<td>32.7</td>
<td>60.3</td>
<td>4.5</td>
<td>1.3</td>
<td>1.3</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion

Table 11 data show the teachers’ frequency responses to the degree that middle school design was present across All Middle Schools. The data show that 80.1% of the teachers strongly agreed or agreed that Interdisciplinary Teaming was present, 78.2% strongly agreed or agreed that Advisor/Advisee was present, 93.5% strongly agreed or agreed that Core Curriculum was present, 68.6% disagreed or strongly disagreed that Block/Flexible Scheduling was present, 62.9% strongly agreed or agreed that Exploration was present and 32.0% disagreed or strongly disagreed that Exploration was present, and 93.0% strongly agreed or agreed that Cooperative Learning is present.
Table 12

Principals Reported Frequency Responses of the Degree that Middle School Design is Present across All Middle Schools

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Middle Schools</td>
<td>3</td>
<td>0.0</td>
<td>100.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Interdisciplinary Teaming</td>
<td>3</td>
<td>66.7</td>
<td>33.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Advisor/Advisee</td>
<td>3</td>
<td>33.3</td>
<td>66.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Core Curriculum</td>
<td>3</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Block/Flexible Scheduling</td>
<td>3</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Exploration</td>
<td>3</td>
<td>33.3</td>
<td>66.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Cooperative Learning</td>
<td>3</td>
<td>33.3</td>
<td>66.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

SA–Strongly Agree; A–Agree; D–Disagree; SD–Strongly Disagree; NO–No Opinion

Table 12 data show the principals’ frequency responses to the degree that middle school design was present in All Middle Schools. The data show that 100% of the principals agreed that Interdisciplinary Teaming was present, 100.0% strongly agreed or agreed that Advisor/Advisee was present, 100.0% strongly agreed or agreed that Core Curriculum is present, 66.6% strongly agreed or agreed that Block/Flexible Scheduling was present, and 100.0% strongly agreed or agreed that Exploration and Cooperative Learning was present.

Research Question Two

The second research question was designed for the purpose of determining the degree to which principals and teachers from four Minnesota middle schools characterized the six dimensions of an open organizational climate. The research question was answered by determining the principals’ and teachers’ responses to the six dimensions of an open organizational climate.
In order to determine the mean score for each dimension of an open organizational climate, descriptive statistics were used to summarize data from each of the four middle schools.

Cronbach’s alpha was used to estimate the reliability of the survey. The subtests of Supportive Principal Behavior (.893), Directive Principal Behavior (.830), Restrictive Principal Behavior (.801), Collegial Teacher Behavior (.861), Committed Teacher Behavior (.831), and Disengaged Teacher Behavior (.741) all indicated a high internal reliability.

*Research Question Two: What are the principals’ and teachers’ characterizations in relationship to the dimensions of an open organizational climate?*

The research question was answered by analyzing responses to the survey questions of the dimensions that an open organizational climate was present in the study’s four Minnesota middle schools. Tables 13 through 25 report the results of the individual middle schools while Table 26 presents the combined principals’ (n = 3) and teachers’ (n = 157) results for all four middle schools.

**Table 13**

*Teachers Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School A*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Principal Behavior</td>
<td>37</td>
<td>94.9</td>
<td>2.86</td>
<td>.055</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>37</td>
<td>94.9</td>
<td>1.50</td>
<td>.38</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>37</td>
<td>94.9</td>
<td>1.74</td>
<td>.52</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>37</td>
<td>94.9</td>
<td>2.92</td>
<td>.46</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>37</td>
<td>94.9</td>
<td>3.13</td>
<td>.39</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>37</td>
<td>94.9</td>
<td>1.68</td>
<td>.42</td>
</tr>
</tbody>
</table>
Table 13 shows the mean and standard deviation of teachers’ characterization of the dimensions of an open organizational climate in Middle School A. The teachers’ mean scores for Supportive Principal Behavior was (M = 2.86), Directive Principal Behavior (M = 1.50), Restrictive Principal Behavior (M = 1.74), Collegial Teacher Behavior (M = 2.92), Committed Teacher Behavior (M = 3.13), and Disengaged Teacher Behavior (M = 1.68).

Table 14

*Teachers Reported Frequency Responses of the Dimensions of an Open Organizational Climate in Middle School A*

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
<th>N</th>
<th>RO</th>
<th>SO</th>
<th>OO</th>
<th>VFO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td></td>
<td>37</td>
<td>5.9</td>
<td>26.8</td>
<td>43.2</td>
<td>24.1</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td></td>
<td>37</td>
<td>58.1</td>
<td>33.3</td>
<td>8.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td></td>
<td>37</td>
<td>43.9</td>
<td>41.9</td>
<td>10.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td></td>
<td>37</td>
<td>4.9</td>
<td>24.6</td>
<td>44.0</td>
<td>26.5</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td></td>
<td>37</td>
<td>1.8</td>
<td>22.2</td>
<td>48.3</td>
<td>27.6</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td></td>
<td>37</td>
<td>54.4</td>
<td>34.8</td>
<td>9.6</td>
<td>1.2</td>
</tr>
</tbody>
</table>

RO—Rarely Occurs; SO—Sometimes Occurs; OO—Often Occurs; VFO—Very Frequently Occurs

Table 14 shows the teachers’ frequency responses of the dimensions of an open organizational climate in Middle School A. The data show that (67.3%) of teachers found the principal’s behavior to be often or very frequently supportive. Moreover, the teachers indicated that Directive Principal Behavior (91.4%) and Restrictive Principal Behavior (85.8%) rarely or sometimes occurred in the school. Finally, teachers indicated that Collegial Teacher Behavior (70.5%) and Committed Teacher Behavior (75.9%) often or very frequently occurred while Disengaged Teacher Behavior (54.4%) rarely occurred.
Table 15

*Teachers Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School B*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>58</td>
<td>89.2</td>
<td>2.83</td>
<td>0.53</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>58</td>
<td>89.2</td>
<td>2.20</td>
<td>0.55</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>58</td>
<td>89.2</td>
<td>2.27</td>
<td>0.58</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>58</td>
<td>89.2</td>
<td>3.22</td>
<td>0.42</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>58</td>
<td>89.2</td>
<td>3.64</td>
<td>0.35</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>58</td>
<td>89.2</td>
<td>1.60</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Table 15 shows the mean score and standard deviation of the teachers’ characterization of the dimensions of an open organizational climate in Middle School B.

The teachers’ mean score for Supportive Principal Behavior was (M = 2.83), Directive Principal Behavior (M = 2.20), Restrictive Principal Behavior (M = 2.27), Collegial Teacher Behavior (M = 3.22), Committed Teacher Behavior (M = 3.64), and Disengaged Teacher Behavior (M = 1.60).

Table 16

*Teachers Reported Frequency Responses of the Dimensions of an Open Organizational Climate in Middle School B*

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Middle School B</td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>58</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>58</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>58</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>58</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>58</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>58</td>
</tr>
</tbody>
</table>

RO–Rarely Occurs; SO–Sometimes Occurs; OO–Often Occurs; VFO–Very Frequently Occurs
Table 16 shows the teachers’ frequency responses to the dimensions of an open organizational climate in Middle School B. The data show that (62.4%) of teachers found the principal’s behavior to be often or very frequently supportive. Moreover, the teachers indicated that Directive Principal Behavior (66.4%) and Restrictive Principal Behavior (66.0%) rarely or sometimes occurred in the school. Finally, teachers indicated that Collegial Teacher Behavior (84.3%) and Committed Teacher Behavior (95.2%) often or very frequently occurred and Disengaged Teacher Behavior (60.2%) rarely occurred.

Table 17

*Teachers Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School C*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>27</td>
<td>48.2</td>
<td>3.36</td>
<td>0.44</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>27</td>
<td>48.2</td>
<td>1.62</td>
<td>0.36</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>27</td>
<td>48.2</td>
<td>1.98</td>
<td>0.78</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>27</td>
<td>48.2</td>
<td>2.70</td>
<td>0.51</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>27</td>
<td>48.2</td>
<td>3.24</td>
<td>0.40</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>27</td>
<td>48.2</td>
<td>1.61</td>
<td>0.45</td>
</tr>
</tbody>
</table>

Table 17 shows the mean and standard deviation of the teachers’ characterization of the dimensions of an open organizational climate in Middle School C. The teachers’ mean score for Supportive Principal Behavior was (M = 3.36), Directive Principal Behavior (M = 1.62), Restrictive Principal Behavior (M = 1.98), Collegial Teacher Behavior (M = 2.70), Committed Teacher Behavior (M = 3.24), and Disengaged Teacher Behavior (M = 1.61).
Table 18

*Teachers Reported Frequency Responses of the Dimensions of an Open Organizational Climate in Middle School C*

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Middle School C</td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>27</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>27</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>27</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>27</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>27</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>27</td>
</tr>
</tbody>
</table>

RO—Rarely Occurs; SO—Sometimes Occurs; OO—Often Occurs; VFO—Very Frequently Occurs

Table 18 show the teachers’ frequency responses to the dimensions of an open organizational climate in Middle School C. The data show that (88.5%) of the teachers found the principal’s behavior to be often or very frequently supportive. Moreover, the teachers indicated that Directive Principal Behavior (86.4%) and Restrictive Principal Behavior (76.9%) rarely or sometimes occurred in the school. Finally, the teachers indicated that Collegial Teacher Behavior (62.4%) and Committed Teacher Behavior (78.2%) often or very frequently occurred and Disengaged Teacher Behavior (57.2%) rarely occurred.

Table 19

*Teachers Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School D*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Middle School D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>35</td>
<td>54.7</td>
</tr>
</tbody>
</table>
Table 19 shows the mean and standard deviation of teachers’ characterization of the dimensions of an open organizational climate in Middle School D. The teachers’ mean score for Supportive Principal Behavior was \(\text{M} = 2.55\), Directive Principal Behavior \(\text{M} = 2.20\), Restrictive Principal Behavior \(\text{M} = 2.28\), Collegial Teacher Behavior \(\text{M} = 2.95\), Committed Teacher Behavior \(\text{M} = 3.36\), and Disengaged Teacher Behavior \(\text{M} = 1.46\).

Table 20

*Teachers Reported Frequency Responses of the Dimensions of an Open Organizational Climate in Middle School D*

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Middle School D</td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>35</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>35</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>35</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>35</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>35</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>35</td>
</tr>
</tbody>
</table>

RO–Rarely Occurs; SO–Sometimes Occurs; OO–Often Occurs; VFO–Very Frequently Occurs

Table 20 show the teachers’ frequency responses to the dimensions of an open organizational climate in Middle School D. The data show that (47.8%) of the teachers found the principal’s behavior to be often or very frequently supportive. Moreover, the teachers indicated that Directive Principal Behavior (67.6%) and Restrictive Principal Behavior (65.7%) rarely or sometimes occurred in the school. Finally, the teachers indicated that Collegial Teacher Behavior (70.6%) and Committed Teacher Behavior (84.4%) often or very frequently occurred and Disengaged Teacher Behavior (69.2%) rarely occurred.
Table 21

*Teachers Reported Frequency Responses of the Dimensions of an Open Organizational Climate across All Middle Schools*

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>All Middle Schools</td>
<td>157</td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>157</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>157</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>157</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>157</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>157</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>157</td>
</tr>
</tbody>
</table>

RO–Rarely Occurs; SO–Sometime Occurs; OO–Often Occurs; VFO–Very Frequently Occurs

Table 21 shows the teachers’ frequency responses to the dimensions of an open organizational climate across all four middle schools. The data show that (65.2%) of teachers found the principals’ behavior to be often or very frequently supportive. Moreover, the teachers indicated that Directive Principal Behavior (76.0%) and Restrictive Principal Behavior (72.4%) rarely or sometimes occurred. Finally, teachers indicated that Collegial Teacher Behavior (74.2%) and Committed Teacher Behavior (85.4%), often or very frequently occurred and Disengaged Teacher Behavior (60.3%) rarely occurred.

The research question was answered by analyzing responses to the survey questions of the dimensions that an open organizational climate was present in three Minnesota middle schools. Tables 22 through 24 show the results of the individual schools. Table 25 show the results across all schools, and Table 26 show the combined principals’ (n = 3) and teachers’ (n = 157) results of the four schools. Middle School C was not reported.
Table 22

*Principals Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School A*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>2.55</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.50</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>2.00</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.00</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>2.78</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Table 22 data show the mean score of the principal’s characterization of the dimensions of an open organizational climate in Middle School A. The principal’s mean score for Supportive Principal Behavior was (M = 2.55), Directive Principal Behavior (M = 1.50), Restrictive Principal Behavior (M = 2.00), Collegial Teacher Behavior (M = 3.00), Committed Teacher Behavior (M = 2.78), and Disengaged Teacher Behavior (M = 1.67).

Table 23

*Principals Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School B*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.36</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>2.00</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>2.00</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.64</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.89</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Table 23 data show the mean score of the principal’s characterization of the dimensions of an open organizational climate in Middle School B. The principal’s mean score
for Supportive Principal Behavior was \( M = 3.36 \), Directive Principal Behavior \( M = 2.00 \),
Restrictive Principal Behavior \( M = 2.00 \), Collegial Teacher Behavior \( M = 3.64 \),
Committed Teacher Behavior \( M = 3.89 \), and Disengaged Teacher Behavior \( M = 1.56 \).

Table 24

*Principals Reported Mean Score of the Dimensions of an Open Organizational Climate in Middle School D*

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.09</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.50</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.75</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.00</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>3.44</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>1</td>
<td>100.0</td>
<td>1.67</td>
</tr>
</tbody>
</table>

Table 24 data show the mean score of the principal’s characterization of the
dimensions of an open organizational climate in Middle School D. The principal’s mean score
for Supportive Principal Behavior was \( M = 3.09 \), Directive Principal Behavior \( M = 1.50 \),
Restrictive Principal Behavior \( M = 1.75 \), Collegial Teacher Behavior \( M = 3.00 \),
Committed Teacher Behavior \( M = 3.44 \), and Disengaged Teacher Behavior \( M = 1.67 \).
Table 25

Principal Reported Frequency Responses of the Dimensions of an Open Organizational Climate across All Middle Schools

<table>
<thead>
<tr>
<th>School Information</th>
<th>Percentage Rate of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>All Middle Schools</td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

RO—Rarely Occurs; SO—Sometime Occurs; OO—Often Occurs; VFO—Very Frequently Occurs

Table 25 shows the principals’ frequency responses to the dimensions that an open organizational climate was present across all schools. The data showed that (78.8%) of the responses indicated Supportive Principal Behavior. Moreover, the principals’ responses indicated that Directive Principal Behavior (77.8%) and Restrictive Principal Behavior (91.7%) rarely or sometimes occurred. Finally, the principals indicated that Collegial Teacher Behavior (87.8%) and Committed Teacher Behavior (84.4%) often or very frequently occurred and Disengaged Teacher Behavior (59.2%) rarely occurred.
Table 26

**Principal and Teachers Reported Mean Score of the Dimensions of an Open Organizational Climate in All Middle Schools**

<table>
<thead>
<tr>
<th>School Information</th>
<th>N</th>
<th>Percentage Rate of Respondents</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Middle Schools</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supportive Principal Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>3.00</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>2.86</td>
</tr>
<tr>
<td>Directive Principal Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>1.67</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>1.94</td>
</tr>
<tr>
<td>Restrictive Principal Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>1.91</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>2.10</td>
</tr>
<tr>
<td>Collegial Teacher Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>3.21</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>3.00</td>
</tr>
<tr>
<td>Committed Teacher Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>3.48</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>3.39</td>
</tr>
<tr>
<td>Disengaged Teacher Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principals</td>
<td>3</td>
<td>100.0</td>
<td>1.56</td>
</tr>
<tr>
<td>Teachers</td>
<td>157</td>
<td>100.0</td>
<td>1.59</td>
</tr>
</tbody>
</table>

Table 26 data show the mean score of principals’ and teachers’ characterization of the dimensions of an open organizational climate in All Middle Schools. The principals’ mean score for Supportive Principal Behavior was \(M = 3.00\), Directive Principal Behavior \(M = 1.67\), Restrictive Principal Behavior \(M = 1.91\), Collegial Teacher Behavior \(M = 3.21\), Committed Teacher Behavior \(M = 3.48\), and Disengaged Teacher Behavior \(M = 1.56\). The teachers’ mean score for Supportive Principal Behavior was \(M = 2.86\), Directive Principal Behavior \(M = 1.94\), Restrictive Principal Behavior \(M = 2.10\), Collegial Teacher Behavior \(M = 3.00\), Committed Teacher Behavior \(M = 3.39\), and Disengaged Teacher Behavior \(M = 1.59\).
**Research Question Three**

The study’s third research question was designed for the purpose of determining the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate. The research question was answered by determining the principals’ and teachers’ responses to these relationships. In the study conducted by Hannum (1994) the researcher was unable to find a significant relationship among these variables.

A Pearson Correlation (r) was used to describe the relationship between the degree to which the six concepts of middle school design and the six dimensions of an open organizational climate were present in the respective middle schools.

*Research Question Three: What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?*

The research question was answered by analyzing responses to the survey questions of the overall relationship between selected concepts of middle school design. Tables 27 and 28 show the results of these relationships.

Table 27

*Teachers Reported Overall Relationship of Selected Middle School Design Concepts*

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>r</th>
<th>Sig (p)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Teaming and Advisor/Advisee</td>
<td>.363***</td>
<td>.000</td>
<td>156</td>
</tr>
<tr>
<td>Interdisciplinary Teaming and Core Curriculum</td>
<td>.360***</td>
<td>.000</td>
<td>156</td>
</tr>
<tr>
<td>Interdisciplinary Teaming and Block/Flexible Scheduling</td>
<td>.159**</td>
<td>.048</td>
<td>156</td>
</tr>
<tr>
<td>Core Curriculum and Advisor/Advisee</td>
<td>.284***</td>
<td>.000</td>
<td>156</td>
</tr>
<tr>
<td>Core Curriculum and Exploration</td>
<td>.177**</td>
<td>.027</td>
<td>156</td>
</tr>
<tr>
<td>Core Curriculum and Cooperative Learning</td>
<td>.302***</td>
<td>.000</td>
<td>156</td>
</tr>
<tr>
<td>Cooperative Learning and Interdisciplinary Teaming</td>
<td>.188**</td>
<td>.019</td>
<td>156</td>
</tr>
</tbody>
</table>

***Correlation is significant at the .01 level (2-tailed)***

**Correlation is significant at the .05 level (2-tailed)**
Table 27 indicates there was 99% confidence ($p = .000$) that there was a moderately strong relationship ($r = .363$) between the middle school concepts of Interdisciplinary Teaming and Advisor/Advisee according to teacher respondents. Furthermore, Table 27 indicates there was 95% confidence ($p = .019$) that there was a weak but positive relationship ($r = .188$) between the middle school concepts of Cooperative Learning and Interdisciplinary Teaming.

Table 28

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>$r$</th>
<th>Sig ($p$)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interdisciplinary Teaming and Advisor/Advisee</td>
<td>.363***</td>
<td>.000</td>
<td>3</td>
</tr>
<tr>
<td>Interdisciplinary Teaming and Core Curriculum</td>
<td>.360***</td>
<td>.000</td>
<td>3</td>
</tr>
<tr>
<td>Interdisciplinary Teaming and Block/Flexible Scheduling</td>
<td>.159**</td>
<td>.048</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum and Advisor/Advisee</td>
<td>.500</td>
<td>.667</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum and Exploration</td>
<td>1.000***</td>
<td>.000</td>
<td>3</td>
</tr>
<tr>
<td>Core Curriculum and Cooperative Learning</td>
<td>-.500</td>
<td>.667</td>
<td>3</td>
</tr>
<tr>
<td>Cooperative Learning and Interdisciplinary Teaming</td>
<td>.188**</td>
<td>.019</td>
<td>3</td>
</tr>
</tbody>
</table>

***Correlation is significant at the .01 level (2-tailed)
**Correlation is significant at the .05 level (2-tailed)

Table 28 indicates there was 99% confidence ($p = .000$) that there was a moderately strong relationship ($r = .360$) between the middle school concepts of Interdisciplinary Teaming and Core Curriculum according to principal respondents. Furthermore, Table 27 indicates there was 99% confidence ($p = .000$) that there was a strong positive relationship ($r = 1.000$) between Core Curriculum and Exploration. However, due to the small sample (n = 3) there was no confidence in the relationship.
The research question was answered by analyzing the responses to the survey questions of the overall relationship between selected dimensions of an open organizational climate. Tables 29 and 30 show the results of these relationships.

Table 29

*Teachers Reported Overall Relationship of Selected Dimensions of an Open Organizational Climate*

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>r</th>
<th>Sig (p)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Principal and Collegial Teacher Behaviors</td>
<td>.299***</td>
<td>.000</td>
<td>157</td>
</tr>
<tr>
<td>Supportive Principal and Committed Teacher Behaviors</td>
<td>.249***</td>
<td>.002</td>
<td>157</td>
</tr>
<tr>
<td>Directive Principal and Committed Teacher Behaviors</td>
<td>.300***</td>
<td>.000</td>
<td>157</td>
</tr>
<tr>
<td>Restrictive Principal and Committed Teacher Behaviors</td>
<td>.145</td>
<td>.070</td>
<td>157</td>
</tr>
<tr>
<td>Restrictive Principal and Disengaged Teacher Behaviors</td>
<td>.227***</td>
<td>.004</td>
<td>157</td>
</tr>
<tr>
<td>Collegial Teacher and Committed Teacher Behaviors</td>
<td>.503***</td>
<td>.000</td>
<td>157</td>
</tr>
<tr>
<td>Collegial Teacher and Disengaged Teacher Behaviors</td>
<td>-.308***</td>
<td>.000</td>
<td>157</td>
</tr>
</tbody>
</table>

***Correlation is significant at the .01 level (2-tailed)

Table 29 indicates there was 99% confidence ($p = .000$) that the organizational climate of the four middle schools show a weak but positive relationship ($r = .299$) between Supportive Principal Behavior and Collegial Teacher Behavior according to teacher respondents. Furthermore, Table 29 indicates there was 99% confidence ($p = .000$) that the organizational climate of the four middle schools show a weak but negative relationship ($r = -.308$) between Collegial Teacher Behavior and Disengaged Teacher Behavior.
Table 30

**Principals Reported Overall Relationship of Selected Dimensions of an Open Organizational Climate**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>r</th>
<th>Sig (p)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive Principal and Collegial Teacher Behaviors</td>
<td>.756</td>
<td>.454</td>
<td>3</td>
</tr>
<tr>
<td>Supportive Principal and Committed Teacher Behaviors</td>
<td>.997**</td>
<td>.048</td>
<td>3</td>
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<tr>
<td>Directive Principal and Committed Teacher Behaviors</td>
<td>.803</td>
<td>.407</td>
<td>3</td>
</tr>
<tr>
<td>Restrictive Principal and Committed Teacher Behaviors</td>
<td>-.115</td>
<td>.927</td>
<td>3</td>
</tr>
<tr>
<td>Restrictive Principal and Disengaged Teacher Behaviors</td>
<td>.000</td>
<td>1.000</td>
<td>3</td>
</tr>
<tr>
<td>Collegial Teacher and Committed Teacher Behaviors</td>
<td>.803</td>
<td>.407</td>
<td>3</td>
</tr>
<tr>
<td>Collegial Teacher and Disengaged Teacher Behaviors</td>
<td>-.866</td>
<td>.333</td>
<td>3</td>
</tr>
</tbody>
</table>

**Correlation is significant at the .05 level (2-tailed)**

Table 30 indicates there was 95% confidence (p = .048) that the organizational climate of the four middle schools show a strong positive relationship (r = .997) between Supportive Principal Behavior and Committed Teacher Behavior according to principals. Furthermore, Table 30 indicates a strong negative relationship (r = -.866) between Collegial Teacher Behavior and Disengaged Teacher Behavior. However, due to the small sample size (n = 3) there was no confidence in the relationship.

**Summary**

Data from 157 middle school teachers and 3 middle school principals were analyzed in order to determine the degree that the concepts of middle school design and the dimensions of an open organizational climate were present in four Minnesota middle schools. Using quantitative research to collect numerical data, the analysis was completed using the Statistical Package for the Social Sciences (SPSS).

Question one was measured by determining the principals’ and teachers’ reported mean score of the degree that middle school design was present in their school. Furthermore,
teachers reported frequency responses to the degree that middle school design was present in their school was determined.

Question two was measured by determining the principals’ and teachers’ reported mean score of the degree that an open organizational climate was present in their school. Furthermore, teachers reported frequency responses to the degree that an open organizational climate was present in their school was determined.

Question three was measured by determining the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate. Pearson Correlation (r) was used to describe these relationships. While correlations may indicate a relationship between variables, it does not mean that either one cause the other (Slavin, 2007).

Principals and teachers from four Minnesota middle schools were asked to respond to questions pertaining to middle school design and an open organizational climate. They were asked to what degree they characterized that their middle school was implementing the concepts of middle school design; what was their characterization in relationship to the dimensions of an open organizational climate; and how did they view the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate.

When analyzing the principals’ and teachers’ responses to the concept of middle school design, it was apparent that there was a great deal of agreement on the degree in which middle school design was present across each of the schools. However, there were some concepts that generated a level of disagreement regardless of the size or location of the school.
When analyzing the principals’ and teachers’ responses to the dimensions of an open organizational climate, it was apparent that there was a great deal of agreement on the frequency of some dimensions and disagreement on the frequency of other dimensions. When considering the number of respondents to the survey, this would seem appropriate.

When analyzing the principals’ and teachers’ responses between selected concepts of middle school design and selected concepts of an open organizational climate, the teachers indicated a positive relationship existed between 13 of the 14 correlations and the principals indicated a positive relationship existed between 10 of the 14 correlations.

Chapter V includes the summary of the data, the conclusions, the discussion, the limitations, and the recommendations for further research and practice.
Chapter V: Summary, Conclusions, and Recommendations

The purpose of this study was to examine the extent to which middle school design implementation had a relationship with an open organizational climate. The results of this study were compared to an earlier study conducted by Hannum (1994) to determine if the implementation of a middle school philosophy had an impact on the openness of the organizational climate. Moreover, the study investigated the differences and similarities among the principals’ and teachers’ responses and the responses among four Minnesota middle schools. Finally, the study provided the participating schools’ leadership and staff with a framework for subsequent and constructive changes in their schools. The data were analyzed and the findings organized according to each research question. Chapter V reports the summary, conclusions, discussion, limitations, and recommendations.

Research Questions

1. To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?

2. What are the principals’ and teachers’ characterization in relationship to the dimensions of an open organizational climate?

3. What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?

For the purpose of this study, 224 middle school teachers and four middle school principals from four Minnesota middle schools belonging to the Minnesota Association of Secondary School Principals (MASSP) were asked to complete a Middle School Implementation Questionnaire and an Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM). The surveys were distributed at regularly scheduled faculty
meetings. One hundred and fifty-seven teachers (71.0%) and three principals (75.0%) responded to the survey.

Analysis of the data was conducted at the St. Cloud State University Center for Statistical Consulting and Research using the Statistical Package for the Social Sciences (SPSS). Using Cronbach’s alpha, an internal reliability for consistency was computed for the two questionnaires. Due to the small number of items (n = 6) on the Middle School Implementation Questionnaire, a (.53) coefficient indicating a low internal reliability was found. For the OCDQ-RM, the subtests of Supportive Principal Behavior (.893), Directive Principal Behavior (.830), Restrictive Principal Behavior (.801), Collegial Teacher Behavior (.861), Committed Teacher Behavior (.831), and Disengaged Teacher Behavior (.741) all indicated high internal reliability.

Conclusions

Research Question One

Research question one was designed for the purpose of determining the degree to which the middle school concepts of Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, Block/Flexible Scheduling, Exploration, and Cooperative Learning were present in four Minnesota middle schools. This research question was answered by determining the principals’ and teachers’ responses to the degree that middle school concepts were present in their schools.

Research Question One: To what degree do principals and teachers characterize that their middle school is implementing the concepts of middle school design?

Four Minnesota middle schools participated in the study. Based on the Lounsbury (2009) definition that, “The middle school concept is a philosophy of education with a special
spirit and deep theoretical roots—a set of beliefs about kids, education, and the human experience. Its concept’s ideals and recommendations are direct reflections of its two prime foundations: the nature and needs of young adolescents and the accepted principles of learning,” certain differences were found between principal and teacher respondents at both the building level and across all schools. Ultimately, these differences could be due to the definition that the respondents ascribed to each of the middle school concepts. The summary of the data begins with Middle School A.

Middle School A

Middle School A showed the highest percentage of respondents. In addition to the middle school principal, (94.5%) of potential teacher respondents completed a 6-item Likert-style questionnaire with the assigned numerical scores of Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4), and No Opinion (5).

The first middle school concept of Interdisciplinary Teaming showed a principal’s mean score of (2.0) and a teachers’ mean score of (1.65). In addition, the frequency responses showed that the principal agreed (100%) and the teachers either strongly agreed or agreed (86.5%) that the concept was present in the school. These responses indicated that Interdisciplinary Teaming was part of their middle school design (see Tables 2 and 3).

The fourth middle school concept of Block/Flexible Scheduling showed a principal’s mean score of (1.0) and a teachers’ mean score of (3.03). In addition, the frequency responses showed that the principal strongly agreed (100%) and the teachers either strongly agreed or agreed (40.5%) or disagreed or strongly disagreed (48.6%) that the concept was present in the school. These responses indicated that there was disagreement on whether or not Block/Flexible Scheduling was part of their middle school design (see Tables 2 and 3).
The fifth middle school concept of Exploration showed a principal’s mean score of (3.0) and a teachers’ mean score of (2.68). In addition, the frequency responses showed that the principal disagreed (100%) and the teachers either strongly agreed or agreed (54.1%) or disagreed or strongly disagreed (37.8%) that the concept was present in the school. These responses indicated that there was disagreement on whether or not Exploration was part of their middle school design (see Tables 2 and 3).

Overall, the Middle School A principal and teachers were in agreement when it came to the middle school concepts of Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, and Cooperative Learning. In each case, their responses indicated that these concepts were part of their middle school design. However, when it came to Block/Flexible Scheduling and Exploration, there was disagreement as to whether or not these concepts were being used. As previously mentioned, this may be due to the definition that the respondents ascribed to each of these concepts.

**Middle School B**

Middle School B showed the second highest percentage of respondents. In addition to the middle school principal, (90.8%) of potential teacher respondents completed a 6-item Likert-style questionnaire with the assigned numerical scores of Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4), and No Opinion (5).

The second middle school concept of Advisor/Advisee showed a principal’s mean score of (2.0) and a teachers’ mean score of (1.42). In addition, the frequency responses showed that the principal agreed (100%) and the teachers either strongly agreed or agreed (96.6%) that the concept was present in the school. These responses indicated that Advisor/Advisee was part of their middle school design (see Tables 4 and 5).
The fourth middle school concept of Block/Flexible Scheduling showed a principal’s mean score of (3.0) and a teachers’ mean score of (3.73). In addition, the frequency responses showed that the principal disagreed (100%) and the teachers either disagreed or strongly disagreed (76.3%) that the concept was present in the school. These responses indicated that Block/Flexible Scheduling was not part of their middle school design (see Tables 4 and 5).

The fifth middle school concept of Exploration showed a principal’s mean score of (3.0) and a teachers’ mean score of (2.68). In addition, the frequency responses showed that the principal disagreed (100%) and the teachers either strongly agreed or agreed (59.3%) or disagreed or strongly disagreed (35.6%) that the concept was present in the school. These responses indicated that there was disagreement on whether or not Exploration was part of their middle school design (see Tables 4 and 5).

Overall, the Middle School B principal and teachers were in agreement when it came to the middle school concepts of Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, Block/Flexible Scheduling, and Cooperative Learning. With the exception of Block/Flexible Scheduling, the respondents indicated that these concepts were part of their middle school design. However, when it came to Exploration, there was disagreement as to whether or not this concept was being used. As previously mentioned, this may be due to the definition that the respondents ascribed to each of these concepts.

Middle School C

Middle School C showed the lowest percentage of respondents. In addition to the fact that the middle school principal chose not to respond to the questionnaire, (46.4%) of potential teacher respondents completed a 6 item Likert style questionnaire with the assigned
numerical scores of Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4), and No Opinion (5).

The first middle school concept of Interdisciplinary Teaming showed a teachers’ mean score of (2.77). In addition, the frequency responses showed that teachers either strongly agreed or agreed (42.3%) or disagreed or strongly disagreed (53.9%) that the concept was present in the school. The responses indicated that there was disagreement on whether or not Interdisciplinary Teaming was part of their middle school design (see Tables 6 and 7).

The third middle school concept of Core Curriculum showed a teachers’ mean score of (2.15). In addition, the frequency responses showed that teachers strongly agreed or agreed (76.9%) that the concept was present in the school. These responses indicated that Core Curriculum was part of their middle school design (see Tables 6 and 7).

The fourth middle school concept of Block/flexible Scheduling showed a teachers’ mean score of (3.62). In addition, the frequency responses showed that teachers either disagreed or strongly disagreed (76.9%) or they had no opinion (15.4%) that the concept was present in the school. These responses indicated that Block/Flexible Scheduling was not part of their middle school design (see Tables 6 and 7).

Overall, Middle School C teachers agreed that Core Curriculum and Cooperative Learning was part of their middle school design. Conversely, teachers indicated that Advisor/Advisee and Block/Flexible Scheduling was not part of their middle school design. Finally, there was disagreement as to whether or not the concepts of Interdisciplinary Teaming and Exploration were being used in the school. As previously mentioned, this may be due to the definition that the respondents ascribed to each of these concepts.
Middle School D

Middle School D showed the third highest percentage of respondents. In addition to the middle school principal, (53.1%) of potential teacher respondents completed a 6-item Likert-style questionnaire with the assigned numerical scores of Strongly Agree (1), Agree (2), Disagree (3), Strongly Disagree (4), and No Opinion (5).

The third middle school concept of Core Curriculum showed a principal’s mean score of (1.0) and a teachers’ mean score of (1.74). In addition, the frequency responses showed that the principal strongly agreed (100%) and teachers either strongly agreed or agreed (94.1%) that the concept was present in the school. These responses indicated that Core Curriculum was part of their middle school design (see Tables 8 and 9).

The fourth middle school concept of Block/Flexible Scheduling showed a principal’s mean score of (2.0) and a teachers’ mean score of (4.18). In addition, the frequency responses showed that the principal agreed (100%) and the teachers disagree or strongly disagreed (70.6%) or had no opinion (29.4%) that the concept was present in the school. These responses indicated that there was disagreement on whether or not Block/Flexible Scheduling was part of their middle school design (see Tables 8 and 9).

Overall, the Middle School D principal and teachers were in agreement when it came to the middle school concepts of Interdisciplinary Teaming, Advisor/Advisee, Core Curriculum, and Cooperative Learning. In each case, their responses indicated that these concepts were part of their middle school design. However, when it came to Block/Flexible Scheduling and Exploration, there was disagreement as to whether or not these concepts were being used. As previously mentioned, this may be due to the definition that the respondents ascribed to each of these concepts.
When analyzing all principal and teacher respondents, it was apparent that there was much agreement on the degree that middle school design was present across all schools. However, in each case, there were certain components of middle school design that generated a common level of disagreement regardless of the size or location of the school.

The first middle school concept of Interdisciplinary Teaming showed a principals’ mean score of (2.0) and a teachers’ mean score of (1.95). In addition, the frequency responses showed that the principals agree (100%) and the teachers either strongly agreed or agreed (80.1%) that the concept was present. With the exception of Middle School C which indicated disagreement as to whether or not this middle school concept was present in their school (see Table 7), the data indicated that Interdisciplinary Teaming was part of middle school design across each of the other middle schools (see Tables 10, 11 and 12).

The third middle school concept of Core Curriculum showed a principals’ mean score of (1.67) and a teachers’ mean score of (1.71). In addition, the frequency responses showed that the principals either strongly agreed or agreed (100%) and the teachers either strongly agreed or agreed (93.5%) that the concept was present. These responses indicated that Core Curriculum was part of middle school design across all of the middle schools (see Tables 10, 11, and 12).

The fifth middle school concept of Exploration showed a principals’ mean score of (2.33) and a teachers’ mean score of (2.54). In addition, the frequency responses showed that the principals either strongly agreed or agreed (100%) and the teachers either strongly agreed or agreed (62.9%) or disagreed or strongly disagreed (32.0%) that the concept was present. These responses indicated that there was disagreement on the concept of Exploration across
the middle schools (see Tables 10, 11, and 12). As was previously mentioned, this may be due to the definition that the respondents ascribed to this concept.

As was noted throughout the study, the concept of middle school design is a philosophy rather than a grade configuration. Even though the respondents of the survey represented four Minnesota middle schools with little connection on a day-to-day basis, there was a commonality that prevailed throughout the schools. In three of the four schools, the data indicated that Interdisciplinary Teaming was part of their middle school design. Only Middle School C showed disagreement on the concept of Interdisciplinary Teaming. Moreover, three of the four middle schools indicated that Advisor/Advisee was part of their middle school design. Middle School C indicated that it was not part of their middle school design. And finally, Core Curriculum and Cooperative Learning were present in all of the schools.

Finally, the middle school concepts of Block/Flexible Scheduling and Exploration showed the most inconsistencies when it came to the principals’ and teachers’ responses. First, Middle School B and Middle School C indicated that Block/Flexible Scheduling was not part of their middle school design and Middle School A and Middle School D were in disagreement on whether or not it was being used in their school. And secondly, respondents from each of the middle schools were in disagreement on whether or not the middle school concept of Exploration was being used in their school.

**Research Question Two**

Research question two was designed for the purpose of determining the degree that principals and teachers characterized that the open organizational climate dimensions of Supportive Principal Behavior, Directive Principal Behavior, Restrictive Principal Behavior,
Collegial Teacher Behavior, Committed Teacher Behavior, and Disengaged Teacher Behavior were present in their school.

Research Question Two: What are the principals’ and teachers’ characterization in relationship to the dimensions of an open organizational climate?

Four Minnesota middle schools participated in this study. Based on the assertion that open relationships between principals and teachers are necessary if schools are to become truly professional organizations (Hoy & Sabo, 1998), some small differences were found between principal and teacher respondents. The summary of data begins with Middle School A.

Middle School A

Middle School A showed the highest percentage of respondents. In addition to the principal, (94.9%) of potential teacher respondents completed a 50 item Likert style questionnaire with the assigned numerical scores of Rarely Occurs (1), Sometimes Occurs (2), Often Occurs (3), and Very Frequently Occurs (4).

The first climate dimension of Supportive Principal Behavior showed a principal’s mean score of (2.55) and a teachers’ mean score of (2.86). In addition, the frequency responses showed that (67.3%) of the teachers indicated that the principal’s behavior was often or very frequently supportive. These responses indicated that Supportive Principal Behavior was a frequent occurrence in the school (see Tables 13, 14, and 22).

The second climate dimension of Directive Principal Behavior showed a principal’s mean score of (1.50) and a teachers mean score of (1.50). In addition, the frequency responses showed that (58.1%) of the teachers indicated that this climate dimension rarely occurred.
However, the data indicated this behavior sometimes (33.3%) or often (8.6%) occurred in the school (see Tables 13, 14, and 22).

The fifth climate dimension of Committed Teacher Behavior showed a principal’s mean score of (2.78) and a teachers’ mean score of (3.13). In addition, the frequency responses showed that (75.9%) of the teachers indicated that this climate dimension often or very frequently occurred. These responses indicated that Committed Teacher Behavior was a frequent occurrence in the school (see Tables 13, 14, and 22).

Overall, the Middle School A principal and teachers were in agreement when it came to Supportive, Directive, Restrictive, Collegial, and Disengaged Behavior. While there were some differences when it came to the mean scores, this may be attributed to the fact that the principal's (n = 1), as opposed to the teachers' (n = 37) aggregated score was limited to a single response to each of the 50 questions. However, there was some disagreement between the principal's and teachers' responses to Committed Teacher Behavior.

**Middle School B**

Middle School B showed the second highest percentage of respondents. In addition to the middle school principal, (89.2%) of potential teacher respondents completed a 50-item Likert-style questionnaire with the assigned numerical score of Rarely Occurs (1), Sometimes Occurs (2), Often Occurs (3), and Very Frequently Occurs (4).

The first climate dimension of Supportive Principal Behavior showed a principal’s mean score of (3.36) and a teachers’ mean score of (2.83). In addition, the frequency responses showed that (62.4%) of the teachers indicated that the principal’s behavior was often or very frequently supportive. However, the data indicated that this behavior rarely (4.1%) or sometimes (33.5%) occurred. This would suggest that there was some disagreement
between faculty members on this dimension of an open organizational climate (see Tables 15, 16, and 23).

The fifth climate dimension of Committed Teacher Behavior showed a principal’s mean score of (3.89) and a teachers’ mean score of (3.64). In addition, the frequency responses showed (95.2%) of the teachers indicated that this climate dimension often or very frequently occurred. These responses indicated that Committed Teacher Behavior was a frequent occurrence in the school (see Tables 15, 16, and 23).

Overall, the Middle School B principal and teachers were in agreement when it came to Directive, Restrictive, Collegial, Committed, and Disengaged Behavior. While there were some differences when it came to the means scores, this may be attributed to the fact that the principal's (n = 1), as opposed to the teachers' (n = 58) was limited to a single response to each of the 50 questions. However, there was some disagreement between the principal's and teachers' responses to Supportive Principal Behavior.

Middle School C

Middle School C showed the lowest percentage of respondents. In addition to the fact that the middle school principal chose not to respond to the questionnaire, (48.2%) of the potential teacher respondents completed a 50 item Likert style questionnaire with the assigned numerical scores of Rarely Occurs (1), Sometimes Occurs (2), Often Occurs (3), and Very Frequently Occurs (4).

The first climate dimension of Supportive Principal Behavior showed a teachers’ mean score of (3.36). In addition, the frequency responses showed that (88.5%) of the teachers indicated that the principal’s behavior was often or very frequently supportive. These
responses indicated that Supportive Principal Behavior was a frequent occurrence in the school (see Tables 17 and 18).

The second climate dimension of Directive Principal Behavior showed a teachers’ mean score of (1.62). In addition, the frequency responses showed that (53.1%) of the teachers indicated that this climate dimension rarely occurred. However, data indicated that this behavior sometimes (33.3%) or often (11.7%) occurred in the school (see Tables 17 and 18).

The fifth climate dimension of Committed Teacher Behavior showed a teachers’ mean score of (3.24). In addition, the frequency responses showed that (78.2%) of the teachers indicated that this climate dimension often or very frequently occurred. These responses indicated that Committed Teacher Behavior was a frequent occurrence in the school (see Tables 17 and 18).

Overall, Middle School C teachers indicated that Supportive Principal Behavior was far more prevalent than Directive and Restrictive Principal Behavior. Moreover, the teachers indicated that Collegial and Committed Teacher Behavior was far more prevalent than Disengaged Teacher Behavior.

The results described above indicate that Supportive Principal Behavior had a higher frequency of occurrence than Directive and Restrictive Principal Behavior. However, it must be noted that the regular middle school principal had taken a one year leave of absence during the time this survey was being conducted. Therefore, it was beyond the scope of this study to determine whether or not the data reflected the interim principal’s behavior, the regular principal’s behavior, or was a combination of the two principals’ behavior as reported by the teaching staff.
**Middle School D**

Middle School D showed the third highest percentage of respondents. In addition to the middle school principal, (54.7%) of potential teacher respondents completed a 50-item Likert-style questionnaire with the assigned numerical score of Rarely Occurs (1), Sometimes Occurs (2), Often Occurs (3), and Vey Frequently Occurs (4).

The first climate dimension of Supportive Principal Behavior showed a principal’s mean score of (3.09) and a teachers’ mean score of (2.55). In addition, the frequency responses showed that (47.8%) of the teachers indicated that the principal’s behavior was often or very frequently supportive. However, the data further indicated that (46.0%) of the teachers found Supportive Principal Behavior to be a sometime occurrence. This would suggest that there was disagreement between faculty members on this dimension of an open organizational climate (see Tables 19, 20, and 24).

The fourth climate dimension of Collegial Teacher Behavior showed a principal’s mean score of (3.00) and a teachers’ mean score of (2.95). In addition, the frequency responses showed that (70.6%) of the teachers indicated that this climate dimension often or very frequently occurred. These responses indicate that Collegial Teacher Behavior was a frequent occurrence in the school (see Tables 19, 20, and 24).

Overall, Middle School D data suggests that the combined Directive and Restrictive Principal Behavior has a greater frequency of occurrence than Supportive Principal Behavior. Furthermore, the data indicated that Collegial and Committed Teacher Behavior was far more prevalent than Disengaged Teacher Behavior.

The results describe above indicate that Directive and Restrictive Principal Behavior had a greater frequency of occurrence than Supportive Principal Behavior. Although it was
not the intent of this study to draw conclusions as to why this happened, the researcher would be remiss in not reporting that the middle school principal had asked for the resignation of the probationary assistant middle school principal during the course of this survey.

All Principals and Teachers

When analyzing open organization climate across all schools, it was apparent that the dimensions of support, collegiality, and commitment stand out in their relationship to principal and teacher behavior. However, in some cases, there was an indication that both principals and teachers were in disagreement when it comes to the frequency in which each dimension occurs.

The first climate dimension of Supportive Principal Behavior across all schools showed a principals’ mean score of (3.0) and a teachers’ mean score of (2.86). In addition, the frequency responses showed that (100%) of the principals’ responses and (95.7%) of the teachers’ responses indicated a sometimes to very frequent occurrence to this climate dimension. These responses indicated that Supportive Principal Behavior was a frequent occurrence across schools (see Tables 21, 25, and 26).

The third climate dimension of Restrictive Principal Behavior across all schools showed a principals’ mean score of (1.91) and a teachers’ mean score of (2.10). In addition, the frequency responses showed that (91.7%) of the principals’ responses and (72.4%) of the teachers’ responses indicated a rarely to sometimes occurrence to this climate dimension. Although the data indicated that there was a range of responses when it comes to this dimension, Restrictive Principal Behavior does not appear to be a frequent occurrence across schools (see Tables 21, 25, and 26).
The fifth dimension of Committed Teacher Behavior across all schools showed a principals’ mean score of (3.48) and a teachers’ mean score of (3.39). In addition, the frequency responses showed that (81.4%) of the principals’ responses and (85.4%) of the teachers’ responses indicated an often or very frequent occurrence to this climate dimension. These responses indicated that Committed Teacher Behavior was a frequent occurrence across schools (see Tables 21, 25, and 26).

The literature indicated that positive faculty relationships are critical to a school’s learning environment. Composed of educators with different perspectives on what is taking place in the school, the six dimensions of an open organizational climate generated different responses from the two groups. In general, the principals were more positive when it came to Supportive as opposed to Directive or Restrictive Principal Behavior. However, the teacher responses seemed to suggest that the principals were able to find a balance between these three climate dimensions.

A further analysis of the data indicated that Collegial and Committed Teacher Behavior was prevalent throughout the schools. In all cases, the principals and teachers indicated that these two climate dimensions occurred on a frequent basis.

Finally, the data indicated that Disengaged Teacher Behavior was a rare to sometimes occurrence throughout the schools.

**Research Question Three**

In a study by Hannum (1994), an analysis was conducted to examine the relationship between middle school philosophy and an open organizational climate. Based on what was called an exploratory hypothesis, Hannum proposed that the greater the implementation of the middle school philosophy, the more open the school. Not only did Hannum’s study indicate
that “The results were disappointing” (p. 92), but his analysis found that the teachers’ commitment to students indicated a negative influence on the implementation of the middle school philosophy ($r = -.23, p < .05$) and had no significant relationship between principal openness ($r = -.001$) and teacher openness ($r = -.14$). Therefore, the hypothesis was rejected.

The third research question was designed for the purpose of determining the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate. The research question was answered by determining the principals’ and teachers’ responses to these relationships.

*Research Question Three: What is the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate?*

Four Minnesota middle schools participated in this study, Based on their analysis of the relationship between school climate and the implementation of middle school polities, Thomas and Bass (1992) suggested that “In middle schools, a positive climate is related to the degree to which middle school practices are implemented.” (p. 9) Therefore, and based on this analysis and a further review of the literature, the researcher hypothesized that there would be a positive relationship between the six concepts of middle school design and a quality middle school. The summary of the data begins with the concept of middle school design.

*Middle School Design*

Table 27 analyzed the teachers’ responses to the relationship between selected concepts of middle school design. The data indicated that there was a positive and moderately strong relationship ($r = .363$) between the middle school concepts of Interdisciplinary Teaming and Advisor/Advisee; a positive and moderately strong relationship ($r = .360$) between the middle school concepts of Interdisciplinary Teaming and Core Curriculum; and a
positive but weak relationship \((r = .159)\) between the middle school concepts of Interdisciplinary Teaming and Block/Flexible Scheduling. Accordingly, these four variables consistently varied in the same positive direction. Furthermore, the data indicated that the correlations were significant.

Table 27 analyzed the teachers’ responses to the relationships between Cooperative Learning and the middle school concept of Interdisciplinary Teaming. The data indicated that there was a positive but weak relationship \((r = .188)\) between these two middle school concepts. Accordingly, these two variables consistently varied in the same positive direction. Furthermore, the data indicated that the correlation was significant.

Table 28 analyzed the principals’ responses to the relationships between Core Curriculum and the middle school concepts of Advisor/Advisee, Exploration, and Cooperative Learning. The data indicated that there was a positive and moderately strong relationship \((r = .500)\) between the middle school concepts of Core Curriculum and Advisor/Advisee; a positive and strong relationship \((r = 1.000)\) between the middle school concepts of Core Curriculum and Exploration; and a negative but moderately strong relationship \((r = -.500)\) between the middle school concepts of Core Curriculum and Cooperative Learning. With the exception of Cooperative Learning, the correlations between Core Curriculum and each of the other variables consistently varied in the same positive direction. Furthermore, the data indicated that the correlation between Core Curriculum and Exploration was significant.

Table 28 analyzed the principals’ responses to the relationships between Cooperative Learning and the middle school concept of Interdisciplinary Teaming. The data indicated that there was a positive but weak relationship \((r = .188)\) between these two middle school
concepts. Accordingly, these two variables consistently varied in the same positive direction. Furthermore, the data indicated that the correlation was significant.

Overall, the teachers’ responses showed a positive relationship between each of the selected concepts of middle school design. The data indicated that each of the seven correlations (see Table 27) were significant at either the .01 or .05 level (2-tailed).

The principals’ responses showed a positive relationship between all but one of the correlations. First, the data indicated that five of the correlations were significant (see Table 28) at either the .01 or .05 level (2-tailed). Furthermore, the data indicated that although the correlation between Core Curriculum and Advisor/Advisee was not significant, a positive relationship did exist. And finally, a negative relationship existed between the Core Curriculum and Cooperative Learning correlation.

*Open Organizational Climate*

Hoy and Sabo (1998) formulated and tested the factors that promoted openness in both teacher-teacher and teacher-principal relationships. Using the Organizational Climate Description Questionnaire, Revised Middle (OCDQ-RM), they examined the principal behaviors of Supportive, Directive, and Restrictive and the teacher behaviors of Collegial, Committed, and Disengaged. Based on their analysis and a review of the literature, the researcher hypothesized that there would be a positive relationship between the six dimensions of an open organizational climate and a quality middle school.

Table 29 analyzed the teachers’ responses to the relationship between Supportive Principal Behavior and the open organizational climate dimension of Collegial Teacher Behavior and Committed Teacher Behavior. The data indicated that there was a positive but weak relationship ($r = .299$) between the climate dimensions of Supportive Principal Behavior
and Collegial Teacher Behavior; and a positive but weak relationship ($r = .249$) between the climate dimensions of Supportive Principal Behavior and Committed Teacher Behavior. Accordingly, these three variables varied in the same positive direction. Furthermore, the data indicated that the correlations were significant.

Table 29 analyzed the teachers’ responses to the relationship between Collegial Teacher Behavior and the open organizational climate dimensions of Committed Teacher Behavior and Disengaged Teacher Behavior. The data indicated that there was a positive and moderately strong relationship ($r = .503$) between the climate dimensions of Collegial Teacher Behavior and Committed Teacher Behavior; and a negative but weak relationship ($r = -.308$) between the climate dimensions of Collegial Teacher Behavior and Disengaged Teacher Behavior. Accordingly, Collegial Teacher Behavior and Committed Teacher Behavior consistently varied in the same positive direction and Collegial Teacher Behavior and Disengaged Teacher Behavior consistently varied in opposite directions. Furthermore, the data indicated that the correlations were significant.

Table 30 analyzed the principals’ responses to the relationship between Restrictive Principal Behavior and the open organizational climate dimensions of Committed Teacher Behavior and Disengaged Teacher Behavior. The data indicated that there was no relationship ($r = -.115$) between the climate dimensions of Restrictive Principal Behavior and Committed Teacher Behavior; and there was no relationship ($r = .000$) between the climate dimensions of Restrictive Principal Behavior and Disengaged Teacher Behavior.

The teacher respondents showed a positive relationship between selected dimensions of an open organizational climate. The data indicated that six of the seven correlations (see Table 29) were significant at the .01 (2-tailed). However, the correlation between Collegial
Teacher Behavior and Disengaged Teacher Behavior showed a negative relationship. Based on the literature and the researcher’s experience, this was what the researcher would expect.

The principal respondents showed a positive relationship between four of the correlations. First, Supportive Principal Behavior and Committed Teacher Behavior (see Table 30) was significant at the .05 level (2-tailed). Moreover, the data indicated that three of the correlations, while not significant, showed a positive relationship. In addition, the data indicated that a negative relationship existed between Collegial Teacher Behavior and Disengaged Teacher Behavior. And finally, Restrictive Principal Behavior and Committed Teacher Behavior and Restrictive Principal Behavior and Disengaged Teacher Behavior showed no relationship.

Overall, it is important to note that question three was not meant to dispel Hannum’s findings that teachers’ commitment to students indicated a negative influence on the implementation of middle school philosophy and had no significant relationship between principal and teacher openness (Hannum, 1994). Rather, it was meant to determine whether or not relationships that are supportive to a quality education were present in four Minnesota middle schools. While more study is needed to determine the degree that middle school design has on principal and teacher behavior, and its subsequent impact on an open organizational climate, the data clearly indicated that there were positive correlations between the selected variables of this study.

In conclusion, the study examined to what extent the relationship of middle school design implementation had on an open organizational climate. Although the correlations between the variables do not imply causation (Slavin, 2007), the results of the study indicated
that there were positive trends when it came to the concept of middle school design and the dimensions of an open organizational climate.

Question one analyzed the degree to which principals and teachers from four Minnesota middle schools characterized that their middle school was implementing the concept of middle school design. Based on the data, Core Curriculum and Cooperative Learning were present in all of the schools and Interdisciplinary Teaming and Advisor/Advisee were present in three of the schools. Furthermore, two of the schools indicated that Block/Flexible Scheduling did not exist in their school and two of the schools indicated disagreement on whether or not it was part of their middle school design. Finally, all of the schools were in disagreement on whether or not Exploration was present in their school.

When Alexander and George (1981) first proposed the concept of middle school design, they had in mind a child-centered philosophy built on interdisciplinary activities, a core curriculum, flexibility of time, and the opportunity to open the door of exploration for all adolescent learners. While each of the concepts that would become the basis for this study are important in creating a climate for personal growth and intellectual development (Carnegie Council on Adolescent Development, 1989), Brown (1981) recognized the importance of a flexible schedule to make it all fit together.

Although each of the schools surveyed in this study had parts of middle school design, the most noticeable omissions were Exploration and Block/Flexible Scheduling. In the case of Exploration, there was some disagreement as to whether or not it was part of the respective programs. However, and in the case of Block/Flexible Scheduling, it was apparent that this middle school concept was absent from each of the schools.
Therefore, and based on the determination that the greater the extent of middle school implementation the higher the level of student performance (Elmore, 2000), it is the opinion of the researcher that the addition of Block/Flexible Scheduling can become a catalysis for bigger and better things for students. Without this component of middle school design, the flexibility component that is critical to creating a “true” middle school is lost.

Question two analyzed the degree that principals and teachers characterized the dimensions of an open organizational climate. Based on the data, the most frequent occurrence of principal behavior was Supportive Principal Behavior and the most frequent occurrences found in teacher behavior were Collegial and Committed Teacher Behavior.

According to the literature, a high level of collaboration among educators enhances the learning environment (Whitmore, 1997). Based on relationships between colleagues, Hoy et al. (2006) determined it is critical to a successful learning environment.

Although the current study afforded the respondents the opportunity to identify and select six dimensions of an open organizational climate, it was apparent that the respective middle schools placed a premium on the dimensions that the literature indicates is the hallmark of a quality learning environment. Any time Supportive Principal Behavior, Collegial Teacher Behavior, and Committed Teacher Behavior received the highest marks within the educational setting, good things are bound to happen.

Question three analyzed the relationship between selected concepts of middle school design and selected dimensions of an open organizational climate. First, and in relationship to middle school design, the teachers’ responses showed a positive and significant relationship between each of the seven correlations and principals’ responses showed a positive relationship between six of the seven correlations. Furthermore, five of the six principal
correlations were significant. Secondly, and in relationship to an open organizational climate, the teachers’ responses showed a positive and significant relationship between six of the seven correlations and the principals’ responses showed a positive relationship between four of the correlations. A negative relationship was found in one correlation and two of the correlations showed no relationship.

Although the study has already established the fact that relationships between variables does not imply causation, the middle school design correlations and the open organizational climate correlations indicated that the vast majority of the principals’ and teachers’ responses showed a positive relationship. Based on the fact that Cooperative Learning and Interdisciplinary Teaming; and based on the fact that Supportive Principal Behavior and Collegial and Committed Teacher Behavior represent “key” components of middle school design and an open organizational climate, it is the opinion of the researcher that they had a positive impact on the relationships between variables. This opinion supports the researcher’s original hypothesis.

Finally, the purpose of the study was to examine to what extent the relationship of middle school design implementation had on an open organizational climate. To that extent, the three middle schools with the greatest degree of middle school design present in their school (see Tables 3, 5, and 9) not only showed a strong Supportive Principal Behavior, but their combined Collegial and Committed Teacher Behavior was greater than the one middle school (see Table 7) that could only agree that two of the middle school concepts were present in their school.

The findings of this study lead the researcher to two conclusions. First, the data indicates that there are certain middle school concepts that are consistent across all of the
schools. This data would suggest that these schools have determined that there are key elements that must be present if they are going to provide a quality education for their adolescent students. Research would support this practice. And secondly, there are behaviors that are paramount to creating an open organizational climate. Based on the literature and my experience as a longtime middle school educator, the dimensions of Supportive Principal Behavior, Collegial Teacher Behavior, and Committed Teacher Behavior walk hand-in-hand in a true middle school. If done correctly, the concepts of middle school design will become the catalysis for creating these kinds of behavior.

Discussion

According to the literature, middle school design is more than a grade configuration or a name on the building. It is “A philosophy and belief about children, their unique needs, who they are and how they grow” (De Vita et al., 1970, p. 25). In order to meet these unique needs, Turning Points (Carnegie Council on Adolescent Development, 1989) emphasizes the creation of a climate for personal growth and intellectual development. One that requires a learning community that includes the middle school concepts of interdisciplinary teaming, advisor/advisee, core curriculum, flexible scheduling, exploration, and cooperative learning (Association for Middle Level Education, 2010).

One of the unanticipated results of this study was the lack of agreement when it came to the concepts of middle school design. Although each of the four schools indicated that they were middle schools in philosophy and practice, the study indicated that there were key concepts missing from the respective programs. For one reason or another, both the principals and the teachers viewed their middle school program through a different lens even though the terminology had been established prior to conducting the study.
As this researcher reviewed the data, it became apparent that each of the study’s middle schools claimed to lack key components of middle school design. To this end, there was agreement. However, and based on my experience as a longtime middle school practitioner, I believe there was a reason for this. Namely, it is my belief that the majority of the concepts may have existed in one form or another. Although a further study may determine that their existence was limited in scope, duration of time, and how they were delivered, I have no reservation in saying that the respondents were truthful in their assessment of the programs. They honestly believed that the concepts did or did not exist in their respective schools.

Finally, it is important to note that I have no reason to believe that the lack of any of the aforementioned middle school concepts prevented these middle schools from providing a quality education for their students. On the other hand, it is equally important to note that the lack of any middle school concept prevents that school from being called a “true” middle school.

According to the literature, a quality school climate is built around relationships. Through the connection of people one to another, it is a place for collaboration and shared decision making; a place of caring relationships among faculty members and administrators (Rutter et al., 1979). A place where a sense of purpose rallies people to a common cause; work has meaning and life is significant (Sergiovanni, 2007).

When reviewing the concept of openness, Hoy and Sabo (1998) indicated that it includes behaviors that are both supportive and collegial. Built around relationships, it emphasizes professionalism, loyalty, pride, and, most importantly, trust.
One of the concerns this researcher had when analyzing the data was the impact that principal behavior may have had on the outcome of the survey. Although the researcher was not privy to the internal dynamics of the respective middle schools, there were certain behaviors and comments that became apparent during the course of the study.

Beginning with Middle School C, the Superintendent of Schools was genuinely supportive of the study. As the educational leader of a school district that is known for its excellence, he was interested in what was taking place in the middle school. Furthermore, the researcher had the opportunity to meet the regular middle school principal who was on a one year leave of absence in order to complete his doctor’s degree. Much like the superintendent, he was upbeat and outgoing in demeanor. He did not appear to be the kind of person who would hinder the study once it had been endorsed by the superintendent.

The interim principal presented an entirely different set of circumstances. He was not only unwilling to allow this researcher to meet with the teachers prior to distributing the questionnaires, but he was reluctant to confirm a timeline for conducting the survey. In the end, he not only caused the researcher to consider delaying the study until the fall of 2015, but he decided at the last minute that he would not personally participate in the study. The researcher has no way to determine if this behavior had an impact on what would become the lowest percentage of teacher respondents in the study.

Middle School D presented a different kind of problem. Beginning with our initial meeting, and a subsequent meeting with the middle school teachers, the researcher found the principal’s behavior to be very professional. Not only did she appear warm and caring towards students and staff members, but she was upbeat throughout the survey process. It was
not until the last time I met with her that I became aware of the fact that she had requested the resignation of the assistant middle school principal.

With the aforementioned in mind, it is the researcher’s belief that the quality of a middle school is built around a loyal commitment to positive relationships. On the other hand, I believe that there are times when loyalties can be split. Moreover, I believe that these split loyalties may have been at play in Middle School D. Having been a principal in a building that included an assistant principal, it would not surprise the researcher that the dismissal of the assistant middle school principal had an impact on what would become the lowest supportive principal behavior found in the four middle schools.

As one analyzes research question three, it is apparent that it is searching for relationships to two different entities. First, the question calls for the relationship between selected concepts of middle school design. And second, it calls for the relationship between selected dimensions of an open organizational climate. However, the study does not call for a determination of relationships in which a comparison was made between the six concepts of middle school design and the six dimensions of an open organizational climate. They were meant to remain separate.

The concept of middle school design is based on the developmental readiness, needs, and interests of young adolescents (Association for Middle Level Education, 2010). Although the literature lists multiple characteristics and essential attributes to guide and support students at this level of education, there remain six key concepts that must work in unison if a school is going to be true to the middle school philosophy. These components include interdisciplinary teaming, advisor/advisee, core curriculum, block/flexible scheduling, exploration, and cooperative learning.
Based on these key concepts, it has been the researcher’s experience that they actually feed off each other. Starting with interdisciplinary teaming, and the more emphasis placed on this particular concept, the more positive the overall relationships become. Why? Because middle school design is all about relationships and interdisciplinary teaming cannot succeed without them. Furthermore, interdisciplinary teaming will become the lifeblood of the building. If done correctly, you will find committed and enthusiastic educators working together for a common cause.

According to Hoy and Sabo (1998), the open climate is one in which the principal is supportive to teachers with the subsequent result that the faculty is collegial, committed, and engaged. In brief, there is a correlation between the principals’ supportive behaviors and the teachers’ warm and open feelings for fellow teachers and the students they serve.

In measuring the three dimensions of the principals’ behavior—supportive, directive, and restrictive—and the three dimensions of the teachers’ behavior—collegial, committed, and disengaged—the current study is in agreement with Hoy and Sabo (1998) on the correlations between supportive principal behavior and collegial and committed teacher behavior. In both cases, there was a positive relationship (see Tables 27, 28, 29, and 30).

As a way of concluding my thoughts on an open organizational climate, I find it important to note that the key word is balance. Although my experience has led me to believe that a lack of supportive principal behavior will have dire consequences for everyone concerned, I believe it is safe to say that each of the principal behaviors will play a part in the quality of the middle school setting. Furthermore, there will be times when both principals and teachers will not feel very collegial … and that is alright. In the end, and if done correctly,
committed educators will weather the storms and come back to what they do best: meeting the needs of those wonderful young people called adolescent students.

**Limitations**

According to Roberts (2010), limitations are features of a study that are out of the control of the researcher and may negatively affect the results or the ability to generalize the data. Therefore, the limitations of the study are as follows:

1. With respect to Middle School C, the principal decided not to participate in the study. There is a possibility that this decision had an impact on the responses of the school.

2. Unbeknownst to the researcher, Middle School C went on spring break during the established timeline for the survey. The number of responses may have been limited by this event.

3. Unbeknownst to the researcher, the Middle School D principal called for the resignation of the probationary assistant middle school principal during the established timeline for the survey. The number of responses as well as the way the questionnaires were scored may have been impacted by this event.

**Recommendations**

**Recommendations for Research**

As one reviews the literature, it becomes clear that the quality of an environment will be determined by its internal relationships. George and Sims (2007, p. xxxiii) said, “People demand personal relationships with their leaders knowing that trust and commitment are built on openness and depth of relationships. In return, it will lead to great commitment.” Kouzes and Posner (2007, p. 24) shared the stories of men and women who have distinguished
themselves as leaders. Drawn from a broad spectrum of institutions, they found that the message was clear: “Leadership is a relationship. A relationship between those who aspire to lead and those who choose to follow. It is the quality of this relationship that matters most when we’re engaged in getting extraordinary things done.” And finally, Berry and Seltman (2008, p. 65) reminded us of a pioneer doctor and his two sons who began a journey that would lead to one of the great medical institutions (Mayo Clinic) in the world. Surrounded by likeminded men and women who were committed to the dynamics of “Collaboration, cooperation, and coordination, they created an environment so central to their belief system, so integral to who they are, that it became their core value.”

The following recommendations are made based on the research and the conclusions from this study:

1. Numerous Minnesota school districts have abandoned the middle school model and returned to the more traditional junior high school model. Therefore, future research should be done to determine what impact this change has had on school openness and student achievement.

2. Two of the early pioneers in middle school education promoted the idea of specially trained teachers (Alexander & George, 1981). Therefore, future research should be conducted in order to determine if Minnesota school districts that place special emphasis on middle school trained educators show greater openness and higher student achievement than school districts that rely on educators who have received little or no formal training in middle school education.

3. The current study was limited to four Minnesota middle schools located near major institutions of higher learning. Therefore, future research should be
conducted in order to determine student achievement based on building population and school location.

**Recommendations for Practice**

1. Middle school design is all about relationships. By its very nature, this design requires that principals and teachers work together in a supportive and collegial school environment. Therefore, the researcher recommends that middle school practitioners refer to the work of Dr. Wayne Hoy and associates. Based on the research, a good place to begin would be: Quality Middle Schools: Open and Healthy (Hoy & Sabo, 1998).

2. Numerous Minnesota colleges and universities offer courses in middle school education. Therefore, the researcher recommends that building principals and the educational staff place a special emphasis on remaining current on all aspects of middle school education and the adolescent student. A good place to remain current would be by picking a relevant class and taking it together. After all, it is all about being part of a team.
References


Association for Middle Level Education. (2010). *This we believe: Keys to educating young adolescents*. Waterville, OH: National Middle School Association/Association for Middle Level Education.


Consortium on Chicago School Research, 1313 E. 60th Street, Chicago, IL 60637 (ERIC doc. ED439213).


Taguiri, R. (1968). *Organizational climate: Exploration of a concept*. Boston: Harvard University, Division of Research, Graduate School of Business Administration.


Appendix A

Institutional Review Board Approval

Institutional Review Board (IRB)

Office of Research and Sponsored Programs
St. Cloud State University

Name: James Russell Lehman
Address: 215 Trondheim Road
Kenyon, MN 55946
Email: duke055@hotmail.com

Co-Investigators
Advisor: John F. Eller

Project Title: The Relationship between Middle School Design Implementation and an Open Organizational Climate

Comments:
The Institutional Review Board has reviewed your application to conduct research involving human subjects. We are pleased to inform you that your project has been APPROVED in full accordance with federal regulations. Please note the following important information concerning IRB projects:

- The principal investigator assumes the responsibilities for the protection of human subjects in this project. Any adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.).

- For expedited or full board review, the principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension.

- Exempt reviews only require the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed.

- Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates.

- The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time.

Good luck on your research. If you require further assistance, please contact the Office of Research and Sponsored Programs at 320-308-4932 or email lidonnay@stcloudstate.edu. All correspondence should include your SCSU IRB number as indicated on this letter.

For the Institutional Review Board:
Linda Donnay
IRB Administrator
Office of Research and Sponsored Programs

SCSU IRB#:
1390-1695
Type of Review:
Approval Date:
2/13/2015
Expiration Date:

For St. Cloud State University:
Patricia Hughes
Interim Associate Provost for Research
Dean of Graduate Studies

OFFICE USE ONLY
2/13/2015
2/12/2016
Re: Organizational Climate Request

From: Wayne Hoy (whoy@me.com)
Sent: Tue 7/15/14 9:04 AM
To: James Lehman (duke055@hotmail.com)

Dear James:

You have my permission to use the OCDQ-RM AND OHI-RM in your research.

Good luck with your research.

Wayne

Wayne K. Hoy
Fawcett Professor Emeritus in
Education Administration
The Ohio State University
www.waynehoy.com

7687 Pebble Creek Circle, Suite 102
Naples, FL 34108
Email: whoy@mac.com
Phone: 239-595-3732

On Jul 14, 2014, at 3:44 PM, James Lehman <duke055@hotmail.com> wrote:

Dear Dr. Hoy:

I trust this email finds you well. While I can appreciate the fact that you may not remember me after these many months, you were kind enough to provide me with some suggestions when I was still searching for some literature review documents. I am grateful for your help.

Over the course of the past forty years, I have had the privilege to serve 4 school districts as a building principal. Although each of these assignment offered me special memories, my experience in helping to build a middle school program was the highlight of my career. As a matter of fact, it was this experience that led me to begin a process that will hopefully lead to the completion of a doctor's degree at the age of 71.

During the past year I have spent most of my free time researching the concepts of organizational climate, faculty relationships, and middle school design. During this time I had the opportunity to secure the book written by you and the late Dr. Dennis J. Sabo

https://col131.mail.live.com/ol/mail.mvc/PrintMessages?mkt=en-us 7/15/2014
entitled: Quality Middle Schools: Open and Healthy. Not only was I impressed with the scope of your work, but it provided me with a new perspective on what it takes to make a quality middle school climate. In addition, it led me to additional studies by you and your colleagues. They have now become part of my dissertation reference list.

Therefore, and with the aforementioned in mind, I would like your permission to duplicate and use the Organizational Climate Description Questionnaire (OCDQ-RM) and the Organizational Health Inventory (OHI-RM) to measure the respective openness and health dimensions of organizational climate in selected rural, suburban, and urban Minnesota middle schools. It would be my intent to use the questionnaires as listed in the previously mentioned book.

Finally, I have asked Dr. John Hannum for permission to replicate his dissertation. Although I will be making some modifications to his study if he agrees to my request, I will at no time detract from his or your work. I greatly appreciate your time and consideration.

Respectfully yours,

James Russell Lehman
Doctoral Student
St. Cloud State University
Re: Dissertation Replication Request

From: Jhannum (jh15nw@gmail.com)
Sent: Wed 7/23/14 9:10 PM
To: James Lehman (duke055@hotmail.com)

James,
My number is 973-670-6753. Please let me know if I can be of assistance. It will be nice to know where my original findings stand today.
Best of luck,
Dr. Hannum

Sent from my iPhone

On Jul 14, 2014, at 6:21 PM, James Lehman <duke055@hotmail.com> wrote:

Dear Dr. Hannum:

I apologize for contacting you by email. I was unsuccessful in securing an appropriate telephone number.

Over the course of the past forty years, I have had the privilege to serve 4 school districts as a building principal. Although each of these assignments offered me special memories, my experience in helping to build a middle school program was the highlight of my career. As a matter of fact, it was this experience that led me to begin a process that will hopefully lead to the completion of a doctor's degree at the age of 71.

During the past year I spent most of my free time researching the concepts of organizational climate, faculty relationships, and middle school design. During this time I had the opportunity to read your dissertation. Not only was I impressed with the scope of your work, but it helped to reinforce my own thoughts when it comes to my passion: life in a quality middle school.

Therefore, and with the aforementioned in mind, I would like your permission to replicate your original study. Although I would make some modifications (i.e., essential middle school characteristics, population, research questions/hypotheses, and the implementation questionnaire for principals), it would be my intent to update the variables and compare your findings with my own. At no time would I try to detract from your work.

Finally, I would enjoy the opportunity to talk with you at some point in the near future. Having contacted Dr. Wayne Hoy prior to the completion of my literature review, it would be my goal to keep both of you abreast to what I am doing. I greatly appreciate your time and consideration.

https://col131.mail.live.com/ol/mail.mvc/PrintMessages?mkt=en-us 7/24/2014
Respectfully yours,

James Russell Lehman
Doctoral Student
St. Cloud State University
Appendix D

Implied Consent Form

You are invited to participate in a research study on Minnesota middle schools. You were selected as a possible participant due to your membership with the Minnesota Association of Secondary School Principals. This research project is being conducted by James Russell Lehman, St Cloud State University Doctoral Candidate.

Research Title:

The Relationship between Middle School Design Implementation and an Open Organizational Climate

Primary Investigator and Contact Information:

James Russell Lehman is the primary investigator. If you have any questions or concerns please contact the researcher at 507-273-7635 or by email at duke055@hotmail.com

You may also contact the research advisor, Dr. John F. Eller, at 320-308-4272 or by email at jfeller@stcloudstate.edu

Introduction and Purpose:

As a retired public school administrator with over twenty years of experience at the middle school level, I will be gathering data related to middle school design. With the express purpose of determining if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate, this study will provide a randomly selected number of Minnesota middle schools with data that can be used to make future decisions in the educational setting.

Study Procedures:

This study will serve to add to a limited body of research concerning the relationship between middle school design implementation and an open middle school climate. The research design will be a quantitative method of inquiry. According to Slavin (2007, p.7), “In quantitative research, researchers collect numerical data, or information, from individuals or groups and usually subject these data to statistical analyses to determine whether there are relationships among them.” In this study, quantitative data will be collected and analyzed by the researcher. The format is as follows:

Faculty Questionnaire (Quantitative): The building principal and teachers will be surveyed at a regularly scheduled faculty meeting. An Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) will be administered to determine the overall openness of the building. In addition, a six question Middle School Implementation Questionnaire will be
administered to determine the degree to which middle school design has been implemented into the building. Each survey will use a Likert-style questionnaire. The surveys will take approximately 25 minutes to complete. However, no time limit will be imposed. The questionnaires will be collected by the researcher at the end of the faculty meeting.

Data Analysis:

Data analysis methods are described in terms of the quantitative data collection by the survey questionnaires. The process will include preparing the data for analysis, reviewing the data, analyzing the data, and interpreting the analysis of the data.

Risks to Participants:

There are no foreseeable risks associated with participants of this study.

Research Results:

The results of this study will be shared with each of the participating middle schools. The researcher will not only provide a summary of the study, but he will present the results at a regularly scheduled faculty meeting.

Benefits:

Given the fact that limited research has been located to support the argument that middle school design implementation shows a positive relationship to an open middle school climate, this study will be used by the participating middle schools to take a closer look at the dimensions that help to create a quality education for adolescent students.

Confidentiality:

All information will be confidential. There will be nothing used to identify those who participate in the study.

Voluntary Participation:

Participation is voluntary. If you decide to participate and, yet, find questions that you are not comfortable with, you are not required to answer them. In addition, you are free to withdraw from participation at any time without penalty.

Acknowledgement of Implied Consent for the Following Study:

The Relationship between Middle School Design Implementation and an Open Organizational Climate

I have read all the information on this consent form and I have received answers to my questions. By completing the survey I give my permission to participate in this study.

St. Cloud State University
Institutional Review Board
Approval date: 2-13-15
Appendix E

Letter to Principals

January 16, 2015

Inside Address

Dear___________:

In an effort to gather information regarding the relationship between middle school design implementation and an open organizational climate, your superintendent has granted participation of the administration and faculty of your middle school to complete a survey for my doctoral dissertation at St. Cloud State University. Adding to a limited body of research in the area of middle school design and its impact on organizational climate, the results of this study will provide information that can lead to a more effective learning environment for all adolescent students.

If you decide to participate in this study, you will be asked to complete two Likert-style questionnaires. Presented at a regularly scheduled faculty meeting, you and members of the teaching staff will complete an Organizational Climate Description Questionnaire-Revised Middle (OCDQ-RM) to determine the overall openness of the building. In addition, a six question Middle School Implementation Questionnaire will be administered to determine the degree to which middle school design has been implemented into the building. The surveys will take approximately 25 minutes to complete. However, no time limit will be imposed. The questionnaires will be collected by the researcher at the end of the faculty meeting.

Prior to meeting with the teachers, I will meet with you and provide answers to any questions you may have in regards to the study. A copy of the questionnaires are provided with this letter.

There are no foreseeable risks or discomforts associated with this study. Participation is voluntary and there will be nothing used to identify those who participate in the study.

Finally, a copy of the research findings will be provided to the school district once the data has been analyzed. In addition, I would be happy to present the results at a regularly scheduled faculty meeting.

If you have any questions or concerns at any time during the study, please feel free to call or email me or Dr. John F. Eller at one of the contacts listed below.

Your time, consideration, and assistance in the participation of this study is greatly appreciated.

Sincerely yours,

James Russell Lehman
215 Trondheim Road
Kenyon, MN 55946
Email: duke055@hotmail.com
Home Phone: 507-273-7635

Dr. John F. Eller
Dissertation Committee Chair
St. Cloud State University
720 Fourth Avenue South
St. Cloud, MN 56301
Email: jfeller@stcloudstate.edu
Appendix F

District Letterhead Form

(District Letterhead)

To: James Russell Lehman
215 Trondheim Road
Kenyon, MN 55946
Email: duke055@hotmail.com

From: (Name of School District)

Date: January 5, 2015

RE: Agreement to Participate in Proposed Research Study

The (Your School District) has agreed to participate in a research study. The objective of this study is to determine if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate. The results of this study will provide your school with information that can lead to a more effective learning environment for adolescent students. Furthermore, it is understood that participation is voluntary and there will be nothing to identify individuals who participate in the study.

Sincerely,

(Signature)

(Name)

(Title)
Appendix G

Kasson-Mantorville Participation Agreement

KASSON-MANTORVILLE SCHOOLS
"Committed To Excellence"
Independent District # 204 • 101 16th St NE • Kasson, MN 55944-1610
507-634-1100 • Fax 507-634-6661

January 23, 2015

James Russell Lehman
215 Trondheim Road
Kenyon, MN 55946
Email: duke055@hotmail.com

RE: Agreement to Participate in Proposed Research Study

To Whom It May Concern:

The Kasson-Mantorville School District #204 has agreed to participate in a research study. The objective of this study is to determine if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate. The results of this study will provide your school with information that can lead to a more effective learning environment for adolescent students. Furthermore, it is understood that participation is voluntary, and there will be nothing to identify individuals who participate in the study.

Sincerely,

Mark D. Matuska
Superintendent of Schools
Kasson-Mantorville
Appendix H

Monticello Participation Agreement

To: James Russell Lehman  
215 Trondheim Road  
Kenyon, MN  55946  
Email: duke055@hotmail.com

From: Jim Johnson, Superintendent  
Monticello Public Schools ISD #882  
302 Washington Street  
Monticello, MN  55362  
Email: jim.johnson@monticello.k12.mn.us

Date: January 26, 2015

RE: Agreement to Participate in Proposed Research Study

The Monticello School District has agreed to participate in a research study. The objective of this study is to determine if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate. The results of this study will provide our school with information that can lead to a more effective learning environment for adolescent students. Furthermore, it is understood that participation is voluntary and there will be nothing to identify individuals who participate in the study.

Sincerely,

Jim Johnson  
Superintendent

Monticello Public Schools – Every Kid, Every Day
Appendix I

Northfield Participation Agreement

January 28, 2015,

James Russell Lehman
215 Trondheim Road
Kenyon, MN  55946
Email: dukes055@hotmail.com

Subject: Northfield Public Schools Agreement to Participate in Proposed Research Study

Dear Mr. Lehman,

The Northfield Public Schools formally agrees to participate in your proposed research study. The objective of this study is to determine if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate. The results of this study will provide Northfield Middle School and other schools with valuable information and insights that can lead to a more effective learning environment for our adolescent students. Furthermore, it is understood that participation in the study is voluntary and there will be nothing to identify individuals who participate in the study.

Respectfully,

[Signature]

L. Chris Richardson, Ph.D.
Superintendent
Northfield Public Schools

Cc: Greg Gelineau, Northfield Middle School Interim Principal
Appendix J

St. Michael-Albertville Participation Agreement

St. Michael – Albertville Independent School District 885

Excellence is Our Tradition

To: James Russell Lehman
215 Trondheim Road
Kenyon, MN 55946
Email: duke055@hotmail.com

From: St. Michael-Albertville Independent School District 885

Date: February 3, 2015

Re: Agreement to Participate in Proposed Research Study

The St. Michael-Albertville Independent School District 885 has agreed to participate in a research study. The objective of this study is to determine if the concept of middle school design implementation is positively related to the six dimensions of an open middle school climate. The results of this study will provide your school with information that can lead to a more effective learning environment for adolescent students. Furthermore, it is understood that participation is voluntary and there will be nothing to identify individuals who participate in the study.

Sincerely,

[Signature]

Dr. James Behle
Superintendent
St. Michael-Albertville Schools
Appendix K

Organizational Climate Description Questionnaire (OCDQ-RM)

Organizational Climate Description Questionnaire (OCDQ-RM)

Directions: The following are statements about your school. Please indicate the extent to which each statement characterizes your school by circling the appropriate response.

**RO = Rarely Occurs   SO = Sometimes Occurs   OO = Often Occurs   VFO = Very Frequently Occurs**

1. The principal compliments teachers.  
2. Teachers have parties for each other.  
3. Teachers are burdened with busywork.  
4. Routine duties interfere with the job of teaching.  
5. Teachers “go the extra mile” with their students.  
6. Teachers are committed to helping their students.  
7. Teachers help students on their own time.  
8. Teachers interrupt other teachers who are talking in staff meetings.  
10. The principal encourages teacher autonomy.  
11. The principal goes out of his/her way to help teachers.  
12. The principal is available after school to help teachers when assistance is needed.  
13. Teachers invite other faculty members to visit them at home.  
14. Teachers socialize with each other on a regular basis.  
15. The principal uses constructive criticism.  
16. Teachers who have personal problems receive support from other staff members.  
17. Teachers stay after school to tutor students who need help.
18. Teachers accept additional duties if students will benefit.
19. The principal looks out for the personal welfare of the faculty.
20. The principal supervises teachers closely.
21. Teachers leave school immediately after school is over.
22. Most of the teachers here accept the faults of their colleagues.
23. Teachers exert group pressure on non-conforming faculty members.
24. The principal listens to and accepts teachers’ suggestions.
25. Teachers have fun socializing together during school time.
26. Teachers ramble when they talk at faculty meetings.
27. Teachers are rude to other staff members.
28. Teachers make “wise cracks” to each other during meetings.
29. Teachers mock teachers who are different.
30. Teachers do not listen to other teachers.
31. Teachers like to hear gossip about other staff members.
32. The principal treats teachers as equals.
33. The principal corrects teachers’ mistakes.
34. Teachers provide strong social support for colleagues.
35. Teachers respect the professional competence of their colleagues.
36. The principal goes out of his/her way to show appreciation to teachers.
37. The principal keeps a close check on sign-in times.
38. The principal monitors everything teachers do.
39. Administrative paperwork is burdensome at this school.
40. Teachers help and support each other.
41. The principal closely checks teacher activities.

42. Assigned non-teaching duties are excessive.

43. The interactions between team/unit members are cooperative.

44. The principal accepts and implements ideas suggested by faculty members.

45. Members of teams/units consider other members to be their friends.

46. Extra help is available to students who need help.

47. Teachers volunteer to sponsor after school activities.

48. Teachers spend time after school with students who have individual problems.

49. The principal sets an example by working hard himself/herself.

50. Teachers are polite to one another.

Reverse score numbers 21 and 50.
Appendix L

Organizational Climate Description Questionnaire (OCDQ-RM) Subtest

**Organizational Climate Description Questionnaire (OCDQ-RM) by Subtest**

**Supportive Principal Behavior**

1. The principal compliments teachers.
2. The principal encourages teacher autonomy.
3. The principal goes out of his/her way to help teachers.
4. The principal is available after school to help teachers when assistance is needed.
5. The principal uses constructive criticism.
6. The principal looks out for the personal welfare of the faculty.
7. The principal listens to and accepts teachers’ suggestions.
8. The principal treats teachers as equals.
9. The principal goes out of his/her way to show appreciation to teachers.
10. The principal accepts and implements ideas suggested by faculty members.
11. The principal sets an example by working hard himself/herself.

**Directive Principal Behavior**

1. The principal rules with an iron fist.
2. The principal supervises teachers closely.
3. The principal corrects teachers’ mistakes.
4. The principal keeps a close check on sign-in times.
5. The principal monitors everything teachers do.
6. The principal closely checks teacher activities.

**Restrictive Principal Behavior**

1. Teachers are burdened with busywork.
2. Routine duties interfere with the job of teaching.
3. Administrative paperwork is burdensome at this school.

4. Assigned non-teaching duties are excessive.

Collegial Teacher Behavior

1. Teachers have parties for each other.

2. Teachers invite other faculty members to visit them at home.

3. Teachers socialize with each other on a regular basis.

4. Teachers who have personal problems receive support from other staff members.

5. Most of the teachers here accept the faults of their colleagues.

6. Teachers have fun socializing together during school time.

7. Teachers provide strong social support for colleagues.

8. Teachers respect the professional competence of their colleagues.

9. Teachers help and support each other.

10. The interactions between team/unit members are cooperative.

11. Members of teams/units consider other members to be their friends.

Committed Teacher Behavior To Students

1. Teachers "go the extra mile" with their students.

2. Teachers are committed to helping their students.

3. Teachers help students on their own time.

4. Teachers stay after school to tutor students who need help.

5. Teachers accept additional duties if students will benefit.

6. Teachers leave school immediately after school is over.

7. Extra help is available to students who need help.

8. Teachers volunteer to sponsor after-school activities.
9. Teachers spend time after school with students who have individual problems.

Disengaged Teacher Behavior

1. Teachers interrupt other teachers who are talking in staff meetings.
2. Teachers exert group pressure on non-conforming faculty members.
3. Teachers ramble when they talk at faculty meetings.
4. Teachers are rude to other staff members.
5. Teachers make “wise cracks” to each other during meetings.
6. Teachers mock teachers who are different.
7. Teachers don’t listen to other teachers.
8. Teachers like to hear gossip about other staff members.
9. Teachers are polite to one another.
Appendix M

Middle School Implementation Questionnaire

Middle School Implementation Questionnaire

Directions: The following middle school design statements are about your school. Please indicate the extent to which each statement characterizes your school by circling the appropriate response.

SA = Strongly Agree    A = Agree    D = Disagree    SD = Strongly Disagree
NO = No Opinion

Interdisciplinary Teaming is defined as a group of teachers from different curricular areas who plan and work together and share the same students for a significant portion of the school day (Flowers, 1999).

1. The concept of Interdisciplinary Teaming is followed in your school.
   • SA     A     D     SD     NO

The major purpose of the Advisor/Advisee Program is to promote increased involvement between teachers and students and to provide at least one adult contact with each student in the school who is characterized by warmth, concern, openness and understanding (George and Alexander, 1993).

1. The concept of Advisor/Advisee is followed in your school.
   • SA     A     D     SD     NO

Core Curriculum represents a full academic program geared for the disciplining of young adolescents’ minds. Students are taught to think critically, develop healthful lifestyles, become active citizens, experience an integrated subject matter across disciplines, and to learn as well as to test successfully (Turning Points, 1989).

1. The concept of Core Curriculum is followed in your school.
   • SA     A     D     SD     NO

Block/Flexible Scheduling allows for at least part of the daily schedule to be organized into larger blocks of time (more than sixty minutes) to allow flexibility for a diversity of instructional activities (Cawelti, 1994).

1. The concept of Block/Flexible Scheduling is followed in your school.
   • SA     A     D     SD     NO
Exploration is a part of the curriculum that allows adolescents to ascertain their special interests and aptitudes and engage in activities that broaden their views of the world and themselves (This We Believe, 2010).

1. The concept of Exploration is followed in your school.
   - SA    A    D    SD | NO

Cooperative Learning is when small groups of learners work together as a team to solve problems, complete a task, or accomplish a common goal (Artz and Newman, 1990).

1. The concept of Cooperative Learning is followed in your school.
   - SA    A    D    SD    NO