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ATTITUDES AND BELIEFS HELD BY TEACHERS

ON INTERDISCIPLINARY TEAMS WITH COMMON PLANNING TIME

AT A HIGHLY EFFECTIVE MIDDLE SCHOOL

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2012

ATTITUDES AND BELIEFS HELD BY TEACHERS ON INTERDISCIPLINARY TEAMS WITH COMMON PLANNING TIME AT A HIGHLY EFFECTIVE MIDDLE SCHOOL

Amy Reynolds, BS, MS

Western Connecticut State University

Abstract

This study explored the beliefs and attitudes about education held by teachers on middle school interdisciplinary teams that shared common planning time (CPT) at a highly effective middle school. Data were analyzed to identify beliefs and attitudes towards students, fellow team members, and the larger school environment.

Effective middle schools have interdisciplinary teacher teams. Teams sharing CPT are more effective than teams without CPT, as well as schools without teams at all. Previous research involved quantitative measures such as student test scores and suspension rates; as well as measures of work environment, self-efficacy, self-esteem, and climate.

In the current educational climate of high-stakes testing and value-added measurements, pressures on educators increase daily. It is important to continue validating the team concept as a critical aspect of middle level education. This study qualitatively explored the attitudes and beliefs of effective middle level teachers on interdisciplinary teams sharing CPT and analyzed various influences upon them.

Using a multiple case study qualitative research design, one suburban middle school that had previously received outside recognition of success was studied. Teachers from all participating teams were given an open-ended survey. Focus groups were held with individual teams from three different grade levels. Individual interviews were held with select members of each team, the longest serving as well as the newest team members. Building administrators were interviewed as well. Artifacts and documents were also examined.

Analysis identified three main themes within the data: empathetic attitudes, team attitudes (flexibility, support, risk-taking), and a profound awareness of adolescence. These attitudes and beliefs influenced one another and overlapped in the teachers' daily work.

This research can influence professional development of pre-service teachers, middle level teachers, and administrators. Findings provide specific topic foci for small group learning community topics, stand-alone workshops, and more. The study's conclusions also lend positive researched support to schools contemplating a move towards, or maintenance of, middle school teacher team structures with CPT.

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APPROVAL PAGE

WESTERN CONNECTICUT STATE UNIVERSITY

School of Professional Studies
Department of Education and Educational Psychology
Doctor of Education in Instructional Leadership

Doctor of Education Dissertation

ATTITUDES AND BELIEFS HELD BY TEACHERS

ON INTERDISCIPLINARY TEAMS WITH COMMON PLANNING TIME

AT A HIGHLY EFFECTIVE MIDDLE SCHOOL

Presented by

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2012

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CHAPTER ONE: INTRODUCTION

Adolescence has always been viewed as a time of tumult: intellectual, emotional, and social. From the formation of the first junior high schools at the turn of the 20th century, educational and psychological experts have called attention to this specific age of development as needing particular consideration from parents and teachers alike. Eminent psychologist G. Stanley Hall asserted that "adolescence is inherently a time of 'storm and stress' when all young people go through some degree of emotional and behavioral upheaval" (Arnett, 2006, p. 186).

As the century progressed, junior high schools became middle schools. A more pronounced focus on students' social and emotional well-being joined academic needs as a reason to group specific grade levels together (Eichhorn, 1966). A successful middle school was defined as one that was safe, where students achieved above the minimum levels set by state and federal governments, and whose highly-qualified staff provided a warm and welcome environment (Flowers, Mertens, & Mulhall, 2000b; National Forum to Accelerate Middle Grades Reform, [NFAMGR], 1998; National Middle School Association [NMSA], 2010). Research supported the idea that the most effective middle schools were those with a team structure (Carnegie Corporation of New York, 2000; Wallace, 2007), a small core group of teachers that shared responsibility for a common set of students. Further investigation demonstrated that middle schools with teams sharing a common planning time (CPT) were more effective than teams without CPT, or schools without any team structure at all (McEwin & Greene, 2010; Merten & Flowers, 2004; Warren & Payne, 1997).

Common planning time (CPT) is a regularly occurring meeting period at which all team members are present (Mac Iver, 1990). During this time a variety of activities may occur pertaining to different team matters: addressing or discussing specific student concerns,

interdisciplinary planning, parent meetings, arrangement of team or school-wide activities, formal and informal mentoring, and more (Erb, 2000). Many variables effect the efficacy of CPT such as: frequency and length of the meeting period, size of team (with regard to both number of students and number of teachers), geographical locations of the classrooms in which team members teach, length of time team members have worked together, and amount of time during the school day in which students are with fellow team peers (Erb & Stevenson, 1999).

Much of the research pertaining to the efficacy of teams with CPT involved quantitative measures: examination of student test scores, suspension rates, and similar data. Instruments measuring work environment satisfaction, self-efficacy (of students and staff), self-esteem, climate, and other intangibles lend further validity to the claims of middle school team success (Erb & Stevenson, 1999; Flowers, Mertens, & Mulhall, 1999; Warren & Muth, 1995; Warren & Payne, 1997). It was time to delve further into these individual teams via qualitative measures as a means of exploring the attitudes and beliefs that are the foundations of such self-reported measurements (Malu, 2010; Mertens, Flowers, Anfara, & Caskey, 2010).

This study used focus groups, open-ended surveys, document analysis, and semi-structured interviews of building principal(s) and teacher members of highly effective middle school interdisciplinary teams sharing common planning time (CPT) to identify and analyze their beliefs and attitudes. As Creswell noted, qualitative research involved "data analysis that is inductive and establishes patterns and themes . . . includes the voices of participants . . . and a complex description and interpretation" (2007, p. 37). A deeper exploration of the

concepts previously measured via quantitative instruments would add further support to ideas underlying the efficacy of teams with CPT.

Rationale

The number of schools arranged in middle level configurations continues to grow each year. There are currently more than 16,227 middle schools (National Center for Education Statistics, 2008), an astounding growth when compared to the figures from 1993 (11,712 middle schools) or even 1987 (9,086 middle schools) (Alt, Choy, & Hammer, 2000). With the increase of middle schools showing no signs of abating, it is more important than ever to further validate the specific structures supporting student success.

With the 2001 advent of new federal educational legislation known as No Child Left Behind (NCLB), academic pressures on students and teachers have grown (Kasak & Uskali, 2005; Turner, 2010). Research has shown that instructional time, as well as professional development, have declined in content areas not tested (Smith & Kovak, 2011). These negative factors have been recorded in a majority of schools, independent of their racial and economic composition (Smith & Kovak, 2011). As the demands of NCLB alter and expand, the drive to test and measure students show no signs of abating (Consiglio, 2009). Since the establishment of this legislation in 2001, more and more states are linking formal teacher evaluations to their students' scores, often publishing results in local newspapers (Shesgreen, 2011). Politics aside, there are also high financial costs associated with meeting these requirements (Archer, 2005; Mathis, 2005). Preparing, printing, scoring, assessing— the expenses associated with NCLB appear endless. The costs incurred by these actions do not even address the expense of making the necessary changes to curriculum and staff development (Mathis, 2005).

As schools struggle to meet the multitude of these and other unfunded mandates (Hu, 2011), the cost of arranging teachers onto teams with CPT, in addition to other typical middle school components, cannot be ignored. Rottier observed, "As budgets become tighter, it will be imperative to demonstrate . . . a positive effect on student achievement and student welfare. . . . School districts cannot afford the luxury [of teams]" (2000, p. 214). It is expensive to provide the extra services and organizational aspects associated with middle schools (Wallis, Miranda, & Rubiner, 2005). Critics contended that teachers with CPT could be otherwise assigned to use that time engaged in work that provided schools with more immediate, tangible results: bus or lunch duty, supervising study halls or detentions, tutoring, and more (Oakes & Quartz, 1993).

It is important, therefore, that the benefits of CPT are documented and described in depth. In a presentation at NMSA's annual national conference Mertens, Anfara, Flowers, and Caskey (2009) described current research involving observations of teachers' use of CPT to document topics of discussion and time spent per topic. For their study, approximately 60 individuals were trained to collect data in numerous states, in an effort to build a national data base examining the practice of CPT. Although this multi-year research project did involve some individual teacher interviews, there was no plan to examine team effects using focus groups; teacher attitudes and beliefs were not being analyzed. The research foci pertained to how CPT was used, how teachers were trained for CPT, as well as perceived barriers and benefits to CPT. As Mertens (2006) noted, it was significant that the topic of teams with CPT was deemed so critical as to warrant the sole focus of the first national research project undertaken by the Middle Level Education Research Special Interest Group (MLER SIG, a research subgroup within the American Educational Research Association).

The purpose of the present study was to articulate and explore the beliefs and attitudes held by teachers on middle school interdisciplinary teams that share CPT at highly effective schools. Although previous research has quantitatively demonstrated clear relationships between successful middle schools and teams with CPT (Mertens & Flowers, 2003); qualitative methodology has the ability to illuminate and capture less easily measured intangibles such as teacher attitudes pertaining to curriculum, students, administration, parents, and school structures. As Janesick observes, qualitative methodologies "allowed me to capture a richer interpretation of participants' perspectives" (1994, p. 211). She proceeds to say, "The qualitative researcher focuses on description and explanation . . . in all its complexity, context, originality and passion" (p. 218).

Using a diverse set of data collection methods featuring open-ended surveys, focus groups and individual interviews facilitated the gathering of a richer trove of ideas and impressions pertaining to teams with CPT. Kim (2010) pointed to the further importance of using qualitative methodology to investigate current middle school trends. Referring to the crushing push towards quantitative methods promoted by current NCLB regulations and federal funding "races," Kim noted that "as the hegemonic metanarrative of positivism sways the sword of power and authority, qualitative researchers . . . are once again under the influence of a political tornado" (p. 3). It was important to support the use of both methodologies as a means of strengthening the ideas behind effective middle schools in general. Any single approach could not add true validation to the concept.

Research has repeatedly demonstrated clear links between teacher efficacy and student achievement (Armor, Conry-Osequera, Cox, Kin, McDonald, Pascal, Pauly, & Zellman, 1976; Ashton, 1984; Berman, McLaughlin, Bass, Pauly, & Zellman, 1977).

Essentially, teachers who feel that they are effective in the classroom and can make a difference in student learning, actually do so. As Ashton observed, "No other teacher characteristic has demonstrated such a consistent relationship to student achievement" (1984, p. 28).

Research has also supported the idea that teacher efficacy is a norm-referenced construct (Ashton, Buhr, & Crocker, 1984). These researchers demonstrated that teachers developed their ideas pertaining to personal efficacy by comparing themselves to fellow teachers. Spending time with a team in CPT is an authentic way teachers can gain accurate information regarding peer performance and practice. Mac Iver documented a direct correlation between higher use of CPT and decreased isolation felt by teachers (Mac Iver, 1990). Instead of making assumptions based upon secondhand student stories or guessing what happens behind closed classroom doors, the results of this study can assist teachers in gaining tangible information about their peers that could lead to higher levels of personal efficacy.

Given the current prevalence of middle schools and the need to document research-supported methods leading to student and teacher success amidst the growing pressures felt by all schools, it is important to use qualitative methodologies to elaborate upon and deepen the findings already documented by the many quantitative studies supporting middle school teams with CPT.

Statement of the Problem

In a summary of recent research pertaining to the efficacy of middle school teams with CPT, Mertens et al. (2010), cited a variety of studies supporting significant positive links between teams with CPT and measures of student learning and achievement,

perceptions of "being known," self-concept, perceptions of school climate, satisfaction with school, commitment to classwork, reaction to teachers, self-esteem, academic efficacy, positive adjustment, and well-being. Students in these schools also exhibited lower levels of depression and fewer behavior problems than students in schools with similar demographics, but whose teachers did not have CPT. Research pertaining to these schools showed that the effects on teachers were also positive in such areas as: perceptions of work environment, personal teacher efficacy, teacher collegiality, professionalism in curriculum development, job satisfaction, and increased positive interactions between teachers (Flowers, Mertens, & Mulhall, 2000a).

Mertens et al. (2010) noted gaps in current research on middle school teams with CPT. "We do not know . . . what knowledge and skills teachers need, or the quality of these collaborative activities. . . . These issues are critical to continue to expand our understanding of why teams are successful and to assist all teams in becoming most effective" (p. 53). It is exciting to note the efficacy of teams with CPT with regard to successful middle schools. Now researchers need to delve more deeply into the identity and attitudes of these teams. A multifaceted qualitative study, such as the one described in this document, helped identify and describe such constructs.

The purpose of the present study was to explore the qualities of effective middle level teachers on interdisciplinary teams with CPT by probing their beliefs and attitudes. These data pertained to the team concept, effective middle level curriculum and teaching methodologies, student characteristics, school structures (physical and organizational), the role of administration and parents, and the inter-related nature of the team's work habits and styles. Additional areas of interest were: how and in what ways team members interacted

with one another, how meetings were conducted, how team goals were set and measured, how teams functioned, and how CPT was typically used.

Significance of the Study

The potential benefits of this study were many. It was hoped that the findings would paint a clearer picture pertaining to the beliefs and attitudes held by teachers sharing CPT in a successful middle school. Previous research measured various factors ranging from teacher efficacy to work environment using instruments and surveys (Mertens & Flowers, 2006). Via focus groups, interviews, artifact analysis, and open-ended surveys, this study sought to delve more deeply into the concepts revealed and measured by such instruments. A teacher may report that he or she finds the school environment warm and welcoming, but what exactly does this mean? What does it look like? What actions, carried out by students or teachers, led to the development of this atmosphere? By uncovering deeper descriptions of these types of concepts, targeted professional development could be planned that would foster growth in pre-service and active middle level teachers, as well as administrators. Using specific examples and stories, all staff members could actively work to replicate these successes in other middle schools and contexts.

This research could influence professional development goals for pre-service teachers, middle level teachers, and administrators. Findings could provide a specific focus for year-long professional learning community topics, stand-alone workshops, and more. The study's findings could also lend researched support to schools contemplating a move towards a team structure with CPT. In these times of high-stakes testing and value-added measurements, it is important to have substantial, research-based support for teams with CPT. The benefits of CPT are varied and multi-dimensional, profiting both students and

staff. It is important that CPT is viewed as critical to middle school success, not an expendable structure.

> In many school districts across this country, CPT is perceived as a privilege or luxury, and not as a necessary component of middle level education. Unfortunately, in these challenging financial times, it is usually one of the first components to be eliminated from school budgets. . . . The field of middle level education needs additional and on-going research to continue to document the effectiveness of common planning time. (Mertens et al., 2010, p. 56)

Definition of Key Terms

The following terms are defined for the purposes of this study:

1. An **Attitude** is a "viewpoint or disposition towards a particular 'object' (a person, a thing, an idea, etc.). Attitudes are considered to have three components: affective . . . cognitive . . . and behavioral" (Gall, Gall, & Borg, 2007, p. 221). One of Gagné's (1972) five Learning Domains, there is an "apparent requirement for involvement of a human person in the process of modifying attitudes" (p. 4).
2. A **Belief** is a "deeply personal" concept or idea with "stronger affective and evaluative components than knowledge" (Pajares, 1992, p. 309).
3. A **Case Study** is "a qualitative approach in which the investigator explores a bounded system… over time, through detailed, in-depth data collection involving multiple sources of information" (Creswell, 2007, p. 73).
4. **Common Planning Time** (CPT) is a period of time shared by members of an interdisciplinary team used to conduct such group business as "creating coordinated lesson plans, [as well as] share and discuss student progress,

problems and issues" (Flowers et al., 1999, p. 2). This meeting period is held regularly, and is separate from individual teacher preparation periods.

5. **A Focus Group** refers to the use of a group interview as a means of gathering data. Structure of the interview format and use of specific questions varies with regard to the interviewer, the group members, and the topic (Fontana & Frey, 2005).
6. **Middle Schools** house specific student grade levels (typically fifth or sixth through eighth), with a focus on social and emotional needs, as well as academics. As stated by the NYS Regents "The challenge to middle-level education is to make the change from childhood to adolescence and from the elementary grades to the high school a positive period of intellectual and personal development" (2003). Proponents believe that adolescence presents unique opportunities for success, as well as distinct areas of concern that require specialized programming and a unique philosophy (Carnegie Corporation of New York, 1989).
7. **Middle School Teams** refers to a group of teachers that share a common set of students and CPT (Mac Iver, 1990). Frequency and use of planning times vary, as does the number of team members. Although the team's teachers come from different disciplines, they often share curricular and assessment philosophies (Warren & Payne, 1997). Philosophically, "teaming is intended to create a better context that enables students and teachers to know one another better and allows teachers to better support and understand the educational needs of students" (Flowers et al., 1999, p. 2).

8. **Semi-Structured Interviews** are a method of data collection in which a series of open-ended questions is used to elicit information from a subject. "All interviews may begin with the same question or may have a similar skeleton outline of questions to be asked, but each informant may need different probes and may need to be encouraged to explain in more or less detail at different points in the interview" (Johnson & Weller, 2001, p. 491).
9. **Teacher Efficacy** describes the extent to which an educator feels that his or her individual efforts have a direct impact upon student learning (Armor et al., 1976). The level of teacher efficacy is positively correlated with student achievement (Guskey & Passaro, 1994).

Research Questions

This study examined and explored the beliefs and attitudes of interdisciplinary teacher teams with CPT at a highly effective middle school. Data were analyzed to identify values, as well as attitudes towards students, fellow team members, and the school environment.

The research questions guiding this study were:

1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Overview of Methodology

Description of the Setting and the Subjects

The middle school selected for this study was a school judged to be highly effective by an outside team of evaluators using multiple qualitative and quantitative criteria (Appendix A). It was one of 15 potential sites that had won such critical acclaim and was located within 100 miles of the researcher. Situated in a small, suburban district approximately 50 miles north of New York City, this middle school housed approximately 700 students in grades six through eight, with children ranging in age from 10 to 14 years. There were two interdisciplinary teacher teams per grade level. Participants were chosen from a sample of convenience meeting the requirements of this study. They were middle school teachers from a school judged highly effective by an outside team of evaluators using multiple qualitative and quantitative criteria (Appendix A).

Teacher participants taught one or more of the following grades: six, seven, or eight. They were members of a team sharing a common set of students and CPT. They completed an open-ended survey (Appendix B), as well as a general demographic survey (Appendix C). Six separate teams, from three different grade levels (two teams from sixth grade, two from seventh, and two from eighth), participated in individual focus groups. Semi-structured interviews were conducted with nine individual team members, starting with the longest serving and newest members of each team. Lastly, individual interviews were conducted with building administrators.

Instrumentation

Data were collected via open-ended surveys, focus groups with each team, as well as individual interviews with selected teachers and building administrators. See Table 2, p. 89,

for frequency of participation per data collection method. All questions were written by the primary researcher. These data provided information about beliefs held regarding team members' inter-related work habits and styles, middle school students, the concept of teaming, school structures and organization, curriculum, administration, parents, and instruction.

Description of the Research Design

A multiple case study, qualitative research design was utilized. As described by Creswell (2007), a case study is used "to understand an issue or problem using the case as a specific illustration" (p. 73). For this study, the unit of measurement was individual teachers as distinct cases, as well as the collective team itself. The researcher purposely chose teams from a highly effective middle school, as identified by outside experts using multiple criteria and site-visits (New England League of Middle Schools [NELMS], 2010). To most clearly illustrate the construct being studied, Creswell (2007) recommends *purposeful maximal sampling*, "select cases that show different perspectives on the problem, process, or event" (p. 75). Accordingly, teams from different grade levels were studied, and individual interview participants were selected who possessed a range of teaching experience. When using multiple case studies, Bogden and Biklen (2007) also support this method of choosing participants "on the basis of the extent and presence or absence of some particular characteristic" (p. 70).

The use of open-ended surveys, focus groups, and individual interviews was chosen to gather the widest and deepest data possible. Crabtree, Yanoshik, Miller, and O'Connor (1993) noted that "the special characteristics unique to each [method] makes it necessary to decide whether a particular project is best addressed using [all forms]" (p. 149). It was

important to make sure the method(s) fit the research questions and project goals (Crabtree et al., 1993). In this instance, due to the primacy of the construct of teams, open-ended surveys provided initial information; focus groups afforded the opportunity to witness a team's unique chemistry; while individual interviews offered the occasion to pursue individual topics and utterances in more depth.

Description and Justification of the Analyses

A qualitative design was employed utilizing inductive methodology to address the research questions (Corbin & Strauss, 2008). Interview and focus group data were transcribed. Using these data, along with the open-ended survey responses, descriptive codes were created (Bogden & Biklen, 2007). Emerging themes, based on these codes, were identified.

It is important that data were gathered from different sources, or by different means and methods (Fontana & Frey, 2005; Stake, 2005). Referred to as triangulation, this term pertains to the idea of collecting information utilizing multiple: sources or subjects, theoretical approaches, or techniques (Bogden & Biklen, 2007). This researcher collected data from multiple participants (individual team members) and a variety of staff members (administrators and teachers), utilizing different written (text from open-ended surveys, documents, and artifacts) and oral response formats (focus groups and individual interviews). As qualitative research has progressed, triangulation has grown from a method of validating one single story, to a means of showing the depth and range of perspectives pertaining to a concept or event (Fine, Weis, Weseen, & Wong, 2000). It is a means of embracing and illuminating the complexity inherent in data gathered from real life.

Limitations

Guba (1981) identified four separate aspects of trustworthiness: truth value, applicability, consistency, and neutrality. Due to the constrictions imposed by time and finances, this researcher was unable to spend as much time with participants as desired. Although prolonged field experience would be ideal (Bogden & Biklen, 2007), truth value for this study was heightened by the use of triangulation.

Applicability, according to Guba (1981), pertains to the idea that a study has been described in sufficient detail so that future investigators may make valid comparisons between other situations and the one being described. This limitation was directly addressed by the provision of a thorough description of setting, participants, and methodology in Chapter Three.

Variability in data is to be expected in qualitative research (Krefting, 1991). Guba (1981) defined consistency in terms of dependability; although variability is expected and inherent in the domain, the researcher must strive to identify and explain those sources. This limitation was addressed by the use of multiple forms of response (written, oral), and the inclusion of a wide variety of focus group and individual interview participants (teachers, administrators).

Lastly, this researcher employed reflexivity as a means of demonstrating awareness of personal biases via the use of notes taken during interviews and focus groups, as well as field notes typed afterwards. Use of such reflexivity kept the researcher aware of personal biases that may have influenced data collection and analysis. The inclusion of a brief researcher biography in Chapter Three also provides additional information regarding personal and professional experiences of the researcher that may have influenced this study.

CHAPTER TWO: LITERATURE REVIEW

The subsequent Chapter will lay a foundation for the current study in terms of the main tenets supporting the need for such research. First, the history behind the establishment of adolescence as a specific developmental stage will be established, from the first book dedicated to the topic, to the most recent research. Then a brief overview will be given regarding the movement that created and sustained middle schools in America; schools designed to meet the specific needs of this age group. Following that will be a summary of significant studies supporting the efficacy of teacher teams, especially those with CPT, as a factor critical to middle school success. Next, the role teacher efficacy plays pertaining to these ideas will be explored, particularly with regard to the ways in which the innate collaborative nature of teacher teams with CPT promotes increased self-efficacy among members. Last will be an overview of research pertaining to the constructs of *attitudes* and *beliefs*, key topics explored in this study within the context of middle school teams and teachers

It is worthwhile to note that the majority of studies validating the use of teacher teams and CPT in middle schools have predominantly employed a wide variety of quantitative measurements. This Chapter will describe these studies that have investigated a range of student and teacher characteristics, from achievement to environment. This researcher sought to use qualitative methodology in a school designated as highly effective to address this specific gap in the literature. It was felt that such an intensive methodology, with concentrated focus on teams with CPT at an effective school, would cast an innovative and deeper light upon the topic.

Adolescence

The establishment of adolescence as a specific physiological and psychological age in human development is generally credited to G. Stanley Hall. A well known psychologist at the turn of the last century, Hall was the first president of the American Psychological Association, as well as the first president of Clark University. In his classic treatise *Adolescence* (1904), a two volume set featuring over 1,300 pages of information, Hall described many of the behavioral and intellectual hallmarks of this developmental period. Hall observed that adolescents are extremely active both in the physical sense, as well as with regard to their range of interests and pursuits. He noted the tremendous appeal and influence of peers; this is often the first time a child begins to develop and act upon views and interests independent of his or her close family circle. Hall observed that this frequently develops in conjunction with an increased desire for stimulation, often revealed by risk-taking behaviors and impulsivity. Unique to this stage of human development, Hall noticed that within the age group there is often an extremely wide range of abilities: cognitive, social, and emotional. During this period, development in these areas can be rapid, gradual, asynchronous, punctuated, or all of the above.

Hall (1904) also wrote about the hyper-impressionability of adolescents, as well as their rapid mood fluctuations. Instead of viewing this as a liability, Hall commented that these qualities are what make adolescents such avid, rapid learners. They are quick to respond to adult interventions, and eager to try out and apply new ideas. Ironically, more than 100 years ago, Hall articulated the sympathy he felt pertaining to the pressures and stresses of modern life that adolescents faced. He cautioned that schools, families, and religious institutions must not to be blind to these dangers and the specialized needs of the

adolescent population. He saw the responsibility of properly educating this age group as a type of higher calling, saying that "the best test of every human institution is how much it contributes to bring [its] youth to the ever fullest possible development" (p. xv).

Hall's conclusions, based on a limited sample in terms of both race and gender, were drawn from scientific observations and methodologies typical of the 19th century. His supporting arguments were often fraught with errors and biases common for the time period. Arnett (2006) described three major areas in which Hall's ideas completely contradicted modern medicine and psychology: evolution, sexuality, and religious conversion. Hall's beliefs pertaining to evolution included the ideas that not only were genes inherited that influence physical traits, but personality characteristics and specific memories could also be passed on. Hall's views on human sexuality were shaped by his deep religious convictions, as well as the prevailing Victorian morality of the time period. For example, he believed that early sexual activity would result in premature grey hair, hunched posture, and a slower gait. Lastly, Hall believed that all adolescents must undergo an experience of deep religious conversion in order to become productive and well-adjusted adults.

Interestingly, many of Hall's core ideas remain valid, having now been legitimated by contemporary studies. In their excellent survey of the past decade's contributions to the field of adolescent research, Albert and Steinberg (2011) confirmed many of Hall's hypotheses pertaining to adolescent development and behavior. With regard to impulsive actions and poor decision-making, behavioral experiments have illustrated that adolescents are more likely to engage in risky behaviors if a peer is present. They are also more likely to make bad choices, especially if there is a social context to the decision at hand. Cognitively, adolescents are able to perceive consequences as accurately as adults, but they value

potential, perceived benefits more than negative consequences. Albert and Steinberg (2011) also cited other studies which noted that sensation-seeking behaviors increase throughout childhood, peak during adolescence, then decline in adulthood.

Albert and Steinberg (2011) also described how recent neural-imaging and brainscan technology supported these findings based on activity shown in particular areas of the brain associated with such tasks as organization, impulse control, executive functioning, and pleasure. Not only are adolescents highly influenced by their feelings, emotions, and moods; physiologically, their brains are more sensitive to pleasure during this time than at any other period in their lives. In fact, they are increasingly motivated by pleasure rather than punishment, particularly when rewards are immediate. Albert and Steinberg (2011) encouragingly noted, "By bridging work on biological, cognitive, emotional, and social development in adolescence, we will gain a deeper and richer understanding [of adolescence]" (p. 221).

Junior Highs and Middle Schools

The Establishment of Junior High Schools

Middle schools in the United States trace their roots back to the early twentieth century. This was a period of great growth in the number of children attending school. While the population of the country had grown an astounding 70% from 1890 – 1925, the increase in high school attendance during that same time period grew an even more impressive 700% (Gladfelter, 1925). Just as Hall's ideas pertaining to the physical and intellectual development of adolescents were gaining credibility, the concept of a special grade configuration for schools serving this age group arose, an arrangement especially suited to meet the special needs of this burgeoning population (Wiley, 1933).

The first junior high school opened in 1909 in Berkley, CA (Scofield, 1914). Prior to this time, schools were typically arranged in two ways: grammar schools serving grades 1 - 8, and high schools catering to grades 9 - 12. Following the introduction of the first junior high, a great growth in the concept was immediately seen: only two junior highs existed at the end of 1910; by 1916, that number had grown to 365 (Armentrout, 1919). By 1928, there were over 1,566 (Davis, 1933).

Experts argued the need for a new grade configuration for several reasons (Baker, 1913), recommending junior high schools for both big cities and rural locales (Scofield, 1914). Many noted that the transition from grammar school to high school was too abrupt (Armentrout, 1919). Many students did not even attempt the switch, with large numbers dropping out as the grades progressed (Gladfelter, 1925). Armentrout posited that there were too many contrasts between grammar schools and high schools (1919). Differences existed in instruction, course offerings, culture, environment, and scheduling. Grammar schools were filled with nurturing teachers, experts in general studies trained by Normal Schools; these teachers taught every student the same curriculum and spent the entire day with the same set of children. High school students had contact with many different teachers each day, teachers who were much less personally connected to them. These instructors were subject area specialists trained at universities, often without any foundation in teaching methodologies, or the emotional and psychological needs of the age group. It was suggested that junior highs eased the transition to high school; they offered interest-based, prevocational courses that encouraged student retention (Davis, 1933). Junior high schools could better differentiate course offerings and class groupings in ways more responsive to the wide range of abilities evident in this age group (Gladfelter, 1925; Wiley, 1933). As

described by one proponent, “Junior High stands pre-eminently as the waiting opportunity to educate young people rightly at the best chance of their whole life times” (Rorem, 1920, p. 14).

The Shift to Middle Schools

By the middle of the 20th century, a new movement arose: middle schools. Although, by definition, junior high schools had a narrow grade configuration, the curricula focused primarily on two things: career/vocational training or pre-college studies (Alexander & Williams, 1965). Many people cited the changing needs of a modern society, post-War and post-Sputnik, when suggesting a new type of school. Eichhorn (1966) noted the rapid changes that deeply affected adolescents, such as changes in technology, communication, media, mobility, advertising, economics, and family structures. Eichhorn argued for a change in schools more attuned to the specific needs of the age group:

> Traditional approaches might have been successful in meeting the needs of youth in an agrarian and even in a heavy industrial society, but they cannot meet the requirements of a dynamic era. . . . Certainly basic education is important, but a narrow, rigid approach is not commensurate with the nature of the transescent [adolescent] nor the character of our present culture. (p. 57)

Junior high schools were supposed to ease the transition to high school by blending the nurturing, child-centered grammar school ethos with the departmentalized, subject-oriented independence of high school learning. Instead, junior highs had become a miniature version of secondary schools, complete with the pressures and stresses common to a competitive, anonymous high school (Alexander & Williams, 1965).

It was not until the 1960s that the first true middle schools were organized. Similar to the first junior high schools, it was a movement that quickly spread. Gatewood (1973) reported that in 1963 there were approximately 20 schools that self-identified as middle schools. These numbers quickly grew: in 1965 there were 449; 1,101 in 1967; and 2,298 in 1969 (Gatewood, 1973).

Early advocates were quick to point out the important differences between junior highs and middle schools. One hallmark was a focus on the student as an individual, a unique member of the school community. Olson (1973) described a need to differentiate curriculum for each student's unique qualities. This pertained to pacing, difficulty, and even topic itself. Middle school was a time to identify weaknesses, provide remediation, and build confidence. Early middle school advocates also stressed the need for choice and interest-based course offerings, not only for educational reasons but self-fulfillment as well (Georgiady & Roman, 1973). These educators noted that the purpose of such classes was not simply to identify potential career paths and affinities; but to enrich, explore, and create (1973).

Another new focus in middle schools was providing personalized guidance to children at this vulnerable and dynamic point of their lives. Olson (1973) recommended the establishment of an advisory system, where students were assigned to individual teachers who monitored their progress, provided advice, and developed close, personal relationships with students throughout their time in the building. Homerooms became common, and active parent involvement also became part of the formalized middle school structure and philosophy. For example, Olson recommended regular parent teacher conferences, involving student participation, every nine weeks.

Middle schools were encouraged to foster flexibility in all areas. This pertained to varying instructional group sizes, class topics, instructional techniques, and types of activities (Tobin, 1973). Tobin noted that the physical and emotional development typical of adolescents lends itself well to sensory experiences; classes should promote "student involvement in experimentation and exploration" (p. 203). This was not a time for sitting in rows, listening to endless lectures on abstract topics and concepts; students were eager for a wide variety of experiences.

The final component of middle schools that did not exist in the junior high incarnations was the establishment of teacher teams (Baldwin, 1973). Experts recognized that new methods of teaching, combined more active student learning in the classroom, necessitated the use of a much wider variety of teaching strengths and expertise. On teams, groups of teachers worked and planned together, sharing a common set of students (Alexander & Williams, 1965). Not only did teams foster the innovative planning and execution of more dynamic curriculum, but teams decreased the possibility that students would get "lost" among a larger student population (Vars, 1965).

Research Supporting Successful Middle Schools

Since the advent of the first middle schools, their very existence has caused much debate and condemnation. Critics contend that middle schools are more expensive to run (Hull, 1965; Wallis, Miranda, & Rubiner, 2005). They also pose the question: Does this educational philosophy and its execution make a real difference to students and learning? Over the years much research has been conducted to support the efficacy of the middle school structure. The most frequently cited documents are *This We Believe* (NMSA, 2003, 2010) and *Turning Points* (Carnegie Corporation of New York, 1989, 2000). Both research-

based compilations present concise documentation pertaining to the most successful middle school structures and methodologies. They have both been revised by prominent educational researchers, to reflect a rapidly changing society while maintaining an acute awareness of the challenges presented by this age group. Both documents articulate a goal of high achievement for all middle level students, while realizing that "with young adolescents, achieving academic success is highly dependent upon their other developmental needs also being met" (NMSA, 2003, p. 3).

The list of research-supported recommendations included in *Turning Points* and *This We Believe* include: advisory periods, specially-trained teachers, shared-decision making, active learning, family and community partnerships, high expectations for all students, and interdisciplinary teacher teams with CPT (Carnegie Corporation of New York, 1989, 2000; NMSA, 2003, 2010). Authors of the NMSA document called teacher teams that share a common set of students "the signature component of high-performing schools, literally the heart of the school from which all other desirable programs and experiences evolve" (p. 29). The authors observed that teams are the foundation of security and support for both teachers and students. The Carnegie Corporation (1989, 2000) also noted the importance of CPT. These regular meeting times provided an invaluable opportunity for team members to communicate and solve problems together. The authors referred to CPT as "the most powerful source of professional development for middle grades teachers;" instead of ingesting pre-packaged expertise from outside sources, "teachers *create* their professional knowledge about teaching" (p. 128).

As the twentieth century closed, this "fundamental reform movement" (Lounsbury, 2000, p. 193) continued to grow. Miles and Valentine (2001) reported that between 1971 and

2001 the number of middle schools increased by more than 400%. Today, middle schools persist in emphasizing strong academic preparation for high school while addressing the stresses unique to the age and developmental level of the students being served. Lounsbury (2000) described middle schools as those that "seek to establish a climate of caring… involve[s] students actively in the life of the school, building its curriculum at least partially on student concerns" (p. 193).

Teacher Teams

Importance of Teaming in General

A critical element of an effective middle school is the arrangement of teachers into interdisciplinary teams (Fruchter, 1986). Research has repeatedly shown many positive effects of teaming.

Teaming Affects Achievement and Teacher Relationships. Styron and Nyman (2008) conducted a statistical comparison between high and low performing middle schools, examining various factors of climate and organizational structures. The sample of convenience, representing an 81% response rate, included 283 teachers from nine middle schools in the rural south. Schools were classified as high performing (n = 5 schools, 171 teachers) if they had met adequate yearly progress (AYP) guidelines as set by the federal government, in accordance to the mandates of NCLB, for at least two consecutive years. Schools not making AYP, for at least two consecutive years, were classified as low performing (n = 4 schools, 112 teachers). Three separate questionnaires were administered: one measuring organizational climate, one measuring organizational health, and one examining middle school structures and instructional practices.

Descriptive statistical analysis by Styron and Nyman (2008) showed that high performing middle schools recorded higher mean scores on four subscales (out of fourteen) than their lower-performing counterparts. After performing a MANOVA and follow-up ANOVA, the only category for which high performing schools recorded significantly higher scores was *collegial behavior*, F (1, 236) = 12.05, $p < .001$. Styron and Nyman noted that these results were not expected. The authors hypothesized that the low performing schools may have shown higher scores on the majority of subscales because these schools may have been implementing certain changes in an effort to avoid state and federal sanctions associated with not meeting AYP goals.

The most interesting finding within this data set was the high levels of *collegial behavior* seen at the high performing middle schools (Styron & Nyman, 2008). A strong connection was supported between high levels of student achievement and teachers who enjoyed working with one another, easily exchanged ideas, and supported one another. The authors recognized the importance of encouraging and strengthening such bonds, especially as teacher stress continued to increase due to the pressure of high-stakes testing, shrinking budgets, and teacher attrition. Styron and Nyman noted that teacher relationships had a real effect on student performance. CPT created the perfect vehicle to embed regular opportunities for such bonds to deepen; it helped counteract isolation intrinsic to the teaching profession.

Teachers Enjoy and Value Teaming. Teacher's themselves believe in the value of teaming (Blomquist, Bornstein, Fink, Michaud, Oja, & Smulyan, 1986; Markow & Pieters, 2010). In a recent national survey (Markow & Pieters, 2010) of 1,003 public school teachers chosen at random, responses revealed that the majority (67%) of participants believed that

higher levels of collaboration among teachers would result in higher student achievement. As part of this survey, a telephone interview of approximately 15 minutes was conducted to explore teacher beliefs pertaining to collaboration, student achievement, and teaching as a career. Teachers reported an average of 2.7 hours per week spent collaboratively, most frequently as teams, but middle school data were not separately reported.

Markow and Pieters (2010) also noted that teachers in highly collaborative schools, when compared to schools with lower levels of collaboration, spent more time weekly working with other teachers, strongly valued trust among colleagues (and felt trust existed in their own buildings), felt a joint sense of responsibility for the achievement of all students in the school, appreciated the contributions of peers, thought more highly of their students, and were more likely to be very satisfied with their career.

Using a mixed methods design, Blomquist et al. (1986), conducted a descriptive case study that analyzed the relationships between specific middle school structures and their impact on teachers. The participating school, located in an urban area, had a student population of 680 students: 15% low SES and 7% non-white. Using a pre-test/post-test design involving two separate instruments, data were collected from 48 staff, a response rate surpassing 94%. The first survey, the *Staff Opinion Survey*, was a 21-question, Likert-style document created for the study that probed teacher attitudes and opinions towards school structures and routines. The second instrument, the *Human Services Survey* (HSS), examined three subscales (emotional exhaustion, depersonalization, and personal accomplishment) taken from the *Maslach Burnout Inventory* (Maslach & Jackson, 1980). Researchers also conducted in-depth interviews with the building principal and six teachers. These teachers were chosen based on their extreme answers, both high and low, on the HSS.

Mean data taken from pre- and post-test responses showed that 74% of teachers felt teaming was beneficial to teachers (Blomquist et. al, 1986). Sixty-nine percent of respondents expressed that they enjoyed being part of a team, and 79% preferred to work on a team rather than alone. Data gathered via the teacher interviews reflected feelings of pleasure regarding working with teams, noting that the teachers felt better able to more quickly recognize and address student problems as part of a team. Teachers reported feeling a closer connection to students on their teams, and increased confidence in their ability to manage students as well. Lastly, teachers articulated that the decreased isolation helped increase their feelings of self-efficacy.

Teaching Affects Achievement and Student Behavior. In another study that focused solely on highly effective middle schools (as nominated by college professors specializing in middle school research), George and Shewey (1994) divided respondents into *new*, schools with middle school structures in place less than five years; and *old*, schools with middle school structures in place more than five years. Of the *old* schools (n = 68), 85% of the teachers felt that teams had strongly contributed to the long-term success of the school. Extended responses indicated that staff valued CPT for the time it provided to plan together and integrate instruction that benefited students. Participants perceived that students had pride in their team, resulting in a sense of community. Teachers also felt that teams positively portrayed a message of cooperation to parents.

Links between highly effective middle schools and the presence of teacher teams are repeatedly found in the literature. In another national survey, George and Oldaker (1985) used four separate criteria to assemble a sample of exemplary schools from across the nation that had been recently formed into middle schools. From over 34 separate states, 130

different schools participated, reflecting an 81% rate of response. Using data provided by administrators from each district, descriptive analysis revealed that 90% of these highly effective middle schools used interdisciplinary teacher teams. Following reorganization as middle schools, 62% percent demonstrated "consistent academic improvement" (p. 80). A large majority (85%) of participants reported that teachers had higher confidence in student ability, maintained higher academic expectations, observed increased student productivity, and had a deeper awareness of specific student developmental needs unique to the age group in comparison to when they were not organized as middle schools.

Another positive finding was the effect middle school structures had upon discipline (George & Oldaker, 1985). These exemplary middle schools reported that all types of disciplinary referrals had decreased. This included reports of absence and tardiness, thefts, vandalism, suspensions, and expulsions. Following the change to a middle school structure, teachers also noted that they felt better able to manage student behavior within their own classrooms. Anecdotal evidence provided by the participants suggested that teacher teams could more efficiently develop consistent procedures regarding disciplinary measures and behavioral expectations.

Following their change to a middle school organization, participating schools also reported many positive transformations in students' personal development (George & Oldaker, 1985). A large majority (80%) reported improvements in student personal health, creativity, and confidence in their own learning. Ninety percent noted higher student self-concepts and improvements in social development. The researchers noted that team structures led to the development of closer peer relationships, as well as more opportunities for students to participate in a wider variety of during- and after-school activities, which led

to more opportunities for positive recognition. After a switch to a middle school structure, 86% of schools reported increased participation in activities such as intramurals, clubs, and exploratory classes. George and Oldaker noted that, "over 95% percent [of participants] declared that students' attitudes towards school and feelings about teachers became moderately or strongly positive" (p. 81).

George and Oldaker (1985) discovered a change to a middle school format was related to many positive effects on teacher affective measures as well. The large majority of respondents (94%) noted that morale among staff members was moderately to strongly positive. Many (93%) reported a positive attitude towards change, and increased participation (82%) of teachers at special interest activities. More than half of the schools noticed a decrease in teacher turnover, as well as absenteeism, in general. The authors noted that the formation of teacher teams had led to more overt support of one another; many reported that they found their jobs more rewarding. Teachers who had previously worked in isolation now enjoyed the "same sense of belonging and camaraderie they hoped to instill in their students" (p. 83). Participants reported that by planning together and exchanging information about their shared students, they were more consistent in implementing policies and had greater confidence overall.

The Effects of Teaming at Different Levels of Implementation. Using data gathered over multiple years Felner, Jackson, Kasak, Mulhall, Brand, and Flowers (1997) utilized a compressed longitudinal design to examine the effect implementing classic middle school structures had upon student achievement, social-emotional constructs, and school climate. The researchers controlled for student ethnicity, SES, per pupil expenditure, teacher to student ratio, and other risk conditions such as living in high-crime neighborhoods or one

with high unemployment rates. In total, almost 900 teachers and 15,000 students, all from Illinois, were involved in the study.

There were 31 schools in the sample of convenience (Felner et al., 1997). Researchers divided participating schools into three groups with regard to the level of middle school implementation: *high* (n = 9), *partial* (n = 12), and *low* (n = 10). Achievement scores represented a composite of sixth and eighth grade state test scores in mathematics, language arts, and reading. Also examined were a variety of items such as teacher ratings of student behavior, and student self-reports of: behavior, depression, anxiety, and self-esteem.

Data analysis techniques employed included: univariate and multivariate correlations, hierarchical regressions, MANCOVA, ANCOVA, and structural modeling (Felner et al., 1997). Achievement scores were higher at schools with *high* levels of implementation, when compared to the other two types of schools (M = 250, SD = 50). With regard to math scores, *high* schools scored 21 points higher than *partial* schools, and 50 points more than *low* schools. On language tests, *high* schools scored 37 points higher than *partial* schools, and 61 points more than *low*. Lastly, on reading achievement tests, *high* schools scored 9 points higher than *partial* schools, and 28 points more than *low* schools. Results were even more pronounced for at-risk students (Felner et al., 1997). When examining the data tied to minority students and/or those of low SES, the increases in achievement scores at *high* schools were even more pronounced.

There were also strong negative correlations between fewer teacher reports of student behavioral issues and middle schools with *high* implementation (Felner et al., 1997). Among all three types of schools, as the level of implementation increased, reports of negative behavior decreased (SD = 2.60). Students at *high* schools recorded the lowest levels (24.6),

followed by *partial* schools (27), and *low* schools (29.1). Similarly, students in schools with *high* implementation reported being less worried, less fearful, and had higher self-esteem than students at the other two types of schools. Again, as level of implementation increased, correlations decreased for negative attributes, and increased for self-esteem.

The authors (Felner et al., 1997) also examined the data to see if there was a relationship between these findings and the length of time these middle school structures had been in place. Researchers created five separate levels reflecting the strength of the implementation and length of time it had been in place over a period of two years.

During one year, as the level of implementation increased (the team gradually added CPT), eighth grade reading scores were significantly correlated at .51 ($p < .001$), and mathematics scores at .30 ($p < .001$). Over two years, correlations increased to .53 for reading, and .35 for mathematics, respectively.

Fidelity to the concept of teaming was examined more closely as well (Felner et al., 1997). The classic dimensions of good teaming as defined by the authors were: a team size of less than 120 students, student to teacher ratios of fewer that 25:1, and CPT. The researchers found significant correlations between these aspects of teaming and the level of implementation. They noticed that lower levels of these teaming variables were associated with teams that did not collaborate, had a negative school climate (as reported by students), increased levels of anxiety and behavioral problems (as reported by both students and teachers), and lowered levels of student achievement overall. The authors also noted that when teams operated with high fidelity to the construct, improvements were also seen in the use of quality classroom instructional techniques.

While conducting a further analysis of this data set, Erb and Stevenson (1999) found the effects to be even more pronounced. High positive correlations were seen between the frequency of CPT meetings and other positive aspects such as increased contact with other resource staff (.62). Teachers with more CPT more frequently sought access to different types of support staff such as special education teachers, counselors, library-media specialists, social workers, administrators, and others. Teams used these resources to jointly address student needs.

Other correlations Erb and Stevenson (1999) discovered concerned the frequency of CPT and an increased coordination of student work (assignments, assessments, feedback) (.54), increased perceptions among team members regarding the value and quality of teaming (.53), increased coordination of curriculum (.37), and lastly, more frequent and higher quality interactions with parents (.44). It is not surprising to note that the more time a team spent working together, the better able they were to make good use of their shared experiences and ideas to enhance other areas of school life. As an additional benefit, data supported the idea that "teachers came to have a more positive attitude. . . . team planning time leverages many other positive changes in the way schools do business" (p. 48).

Erb and Stevenson (1999) found negative correlations between the size of a team (total number of students to teachers) and all of the same factors noted above, although no *p* value was reported. The size of the student population inhibited the ability of the team in a multitude of ways. As the size of a team increased, negative correlations were seen with regard to parent contact (-.45), contact with other building resources staff (-.44), coordination of curriculum (-.30), teachers' perception of the team's quality (-.12), and coordination of student assignments, assessment and feedback (-.36). These findings were not surprising; as

the number of students shared by a team increased, team efficacy in all areas was negatively impacted.

Teaming and Student Achievement

While working in a "medium sized American middle school, grades 6 – 8, attended by U. S. students, taught by U. S. teachers, in a central European country" (p. 24), Hall (1993) investigated the effects of teaming upon attendance, behavior, and achievement. Using a sample of seventh grade students (n = 143), Hall broke the pool into an experimental group of students with teamed teachers (n = 75), and a control group of students whose teachers were arranged in traditional departments (n = 68). Assignment of students to groups was not completely random; scheduling was constrained by student elective choices and participation in accelerated mathematics. Academic achievement was measured using scores on the Comprehensive Test of Basic Skills (CTBS, 1990), as well as student grade point averages. The research design was a pre-test, post-test non-equivalent group design. Pre-test scores were taken from sixth grade CTBS scores, while seventh grade test results constituted the post-test scores. Students who were not in the school for the entirety of both sixth and seventh grade were excluded. The test's total battery scale score included separate reading (vocabulary and comprehension), mathematics (computation, concepts and application), and language (spelling, language mechanics, and expression) components.

Stepwise multiple regression analysis revealed a significant positive relationship at .03 ($p < .05$) between achievement scores and teamed students (Hall, 1993). Similar correlations were not found between team membership and attendance or behavior. The author noted that measures of achievement were taken with one year between test administrations; while measures of behavior and attendance were gathered over a much

shorter interval (10 to 30 weeks), perhaps it was not a long enough period of time for significant effects to become apparent. The author called for research to move beyond a surface exploration of school organizational structures, to an examination of specific team features most commonly found within effective teams. Hall pointed to qualitative methodology as a means of uncovering what common traits effective teams share since examining "objective student outcome measures" (p. 180) can only reveal so much.

Teaming Characteristics and Behaviors. Another author conducting quantitative research came to a similar conclusion regarding the need for a deeper, qualitative exploration of teams. An extensive investigation by John (2008) explored the relationship of various team practices and characteristics to student achievement. Surveying schools containing middle-level grades with teacher teams in Vermont, 31 schools completed three separate instruments. From over 122 schools solicited, the final sample contained principals (n = 31) and seventh grade teams (n = 44), including 178 teachers from a wide range of schools with regard to geographic locations, SES factors, and size of student population.

One survey instrument, *How We Function as a Team*, was completed by individual teachers (John, 2008). The 24 items on this instrument described specific attributes or characteristics of a team such as holding one another accountable, discussing unproductive behaviors, and so forth. All responses were recorded on a 4-point Likert-type scale that assessed frequency of these behaviors. The second survey instrument, *Teaching Team Survey*, was completed collaboratively by an entire team. This instrument contained 52 items concerning team demographics, teacher tasks, and teacher behaviors. Again, responses were recorded on a 4-point scale. The survey ended with 2 open-ended short writing prompts that explored team strengths and areas in need of improvement.

The final instrument, *School Demographic Survey*, was completed by a building principal. Containing only 3 questions requiring answers chosen from a 4-point Likert-type scale, there were also 4 subsequent open-ended short writing prompts. Student achievement was measured with student scores on the state's standardized mathematics, reading, and writing tests, the *New England Comprehensive Assessment Program* (NECAP). Since these tests were administered in October, eighth grade student scores were used.

John (2008) performed a regression analysis for household income using Vermont state data in order to control for the effect of SES. Further analysis involved the use of Pearson correlations comparing student achievement and data taken from the teacher and principal surveys. If the data were dichotomous, a Chi-square analysis was performed. One interesting finding pertained to team size. John (2008) set his two levels of teams as those with less than 70 students, and those with more. Teams ranged in size from 15 students to 110 students. A statistically significant positive correlation was found between level of student achievement and team size at x^2 Yates (2, n = 44) = 4.03, $p < .05$. While earlier research by Erb and Stevensen (1999) found a link to the higher efficacy of smaller teams, their definition of large pertained to teams with more than 120 students. While John (2008) found *large* teams to be more effective, it is important to know how each study defines *large*. The largest team in John's study contained 110 students.

Other significant correlations were found within the data (John, 2008). The following teacher team characteristics were found to be significantly correlated with achievement: *we hold back from seeking credit for our own contributions* (r = .43, n = 37, $p < .01$, two-tailed); *we hold each other accountable for contributing equitably* (r = .32, n = 39, $p < .05$, two-tailed), and *we hold each other accountable for the quality of our work* (r = .45, n = 36, $p <$

.01, two-tailed). These findings underscore the import of internal team dynamics, the ways and means in which teams interact, communicate, and relate to one another. Team members of high achieving students had significantly higher levels of accountability. They held higher standards not just for their students, but for the work of the other teachers on their teams as well. John (2008) categorized these traits as ones supporting the need for teachers on teams to "build relationships [based] on knowledge, trust, collaboration, and accountability" (p. 130).

Another interesting finding pertained to a significant positive relationship between student achievement and the extent of the role students had in decision making (John, 2008). Four specific areas were found to be statistically relevant. The item, *students select learning modes*, was found to be significant ($r = .33$, $n = 39$, $p < .05$, two-tailed), when examining reading achievement. Three items were significantly positively correlated with mathematics achievement scores: *the team develops rules collaboratively with students* ($r = .39$, $n = 39$, $p < .05$, two-tailed); *students influence regular classroom instruction* ($r = .38$, $n = 39$, $p < .05$, two-tailed); and *joint planning with students* ($r = .32$, $n = 39$, $p < .05$, two-tailed). There were similar correlations with writing scores, but these were not statistically significant.

The last findings pertained to teachers' patterns of communication with parents (John, 2008). Higher mathematics achievement scores were significantly correlated with the category, *team makes announcements via email or website* ($r = .34$, $n = 39$, $p < .05$). Also, the number and frequency of parent volunteers assisting teams revealed a significant positive correlation with higher mathematics scores ($r = .35$, $n = 39$, $p < .05$, two-tailed); and reading scores ($r = .34$, $n = 39$, $p < .05$, two-tailed).

These last two links with higher achievement, student voice/choice and parent involvement, share a common thread pertaining to relationships (John, 2008). These categories involved actions such as direct and productive communication between students and teachers, as well as parents and teachers. If faculty members on teams built meaningful, reciprocal relationships with both students and parents, significantly higher levels of student achievement resulted. Interpersonal interactions of team members with one another, and with the larger school community (students, parents), influenced classroom performance.

John (2008) noted that the three categories of internal team dynamics significantly correlated with higher student achievement involved positive collegiality among team members. Teachers on highly effective teams held high standards for all team members, were comfortable sharing credit for team accomplishments, and supported one another. This extended to the relationships they built with students and parents, as shown by the other significant findings of the study. The author noted that "the level and quality of communications are key to establish empowered relationships that build trust and promote accountability" (p. 131). These were not shallow platitudes directed at students and parents with an eye on public relations, but honest and legitimate dialogues. It was the quality of the interactions themselves, not the presence of superficial structures, that made a difference. When teachers, students, and parents felt that they had a voice and stake in the school, higher academic performance resulted.

John (2008) admitted that his quantitative study design, while providing a wealth of data and information, did not reveal nuances that may have underpinned this success. The author noted, "A limitation of this research design is that the study's findings may be viewed skeptically as too reductive and narrowly objective" (p. 56). Observations such as this point

to the need for qualitatively investigating such team traits and processes as those John found significant.

Additional Research Linking Teaming and Student Achievement. Lee and Smith (1992) also sought to document the effects of teams (with a common set of students and CPT) upon student achievement. Their sample included 8,845 eighth grade students from 377 different schools. They measured academic achievement via a composite of mathematics and reading scores from standardized tests. Conducting a MANOVA and using a hierarchical linear modeling analysis, Lee and Smith controlled for several factors: SES, ethnicity, size of student body, gender, ability, and type of school (private, independent, public). A significant positive correlation was found between teaming and higher student achievement (.06, $p < .05$).

Additional quasi-experimental research (Sharts, 1998) explored the effect of teaming on the academic achievement of middle school students over a two year period of time. Drawing from a sample of Illinois middle schools with similar demographics with regard to ethnicity, SES, and size of student population, 122 schools completed a survey, an 83% rate of return. Participants were identified as schools with teams ($n = 77$), and schools without teams ($n = 31$). Fourteen schools were excluded because teams did not exist on all three grade levels, or had been recently implemented (mid-year). To be included in the study, a team structure must have been in place for at least 15 months. All teams shared a set of common students and CPT. Achievement scores were taken from state standardized tests in reading, mathematics, and writing.

After utilizing a variety of statistical procedures, including ANOVA and stepwise regressions, teaming was found to be a significant predictor of higher scores in mathematics

at $p < .01$ (Sharts, 1998). Only scores on eighth grade tests were analyzed since these students had been exposed to an aspect of the independent variable (teacher teams) for the longest period of time. The author attempted to explain why the effect of teaming was not significant with regard to writing or reading scores. She hypothesized that mathematics skills may be more accurately measured due to the concrete nature of the content area and precise, process-orientated aspects of the skills involved. On the mathematics test all answers were recorded in the form of multiple choice responses, there was no ambiguity. On the writing test answers were expository in nature; each test form was scored by two separate evaluators, a source of subjectivity and potential variation.

Another study found links between teams and higher student achievement in New York State middle schools. The National Center for Educational Accountability sponsored a national research project called *Just for the Kids*, between 1999 and 2002 (Wilcox & Angelis, 2007). The total study involved over 128 schools from 20 states. One subpart of the study focused specifically on middle schools in New York State. Using these data subset, Wilcox & Angelis performed a regression analysis to identify a mixture of high-performing ($n = 10$) and average ($n = 6$) public schools in order to identify best practices. Controlling for SES, school size, and English Language Learners (ELL), a set of high performing schools emerged from a variety of communities. The research team visited each school for two days, conducting interviews and collecting a variety documents. Interviews were conducted with two to five administrators, as well as five to 10 teachers. State test scores in mathematics and ELA, taken from a three-year period of time, were examined.

When Wilcox & Angelis (2007) compared the two types of schools, teams were found at all of the high performing schools. These middle schools with teacher teams had

CPT for 40 - 45 minutes, often daily. Teachers valued CPT as an opportunity to focus on improving student learning, not a time to complain about other problems or things beyond their control. Teachers mentioned their appreciation of the collaborative nature of their work and the fact that traditional teacher isolation was no longer an option when considering the complexity of problems facing schools and children today.

Teaming, Discipline, and Academic Performance. Smaller studies showed similar positive results regarding teaming. In an article about an action research project, Kokolis (2007) described the creation of a pilot team of seventh grade teachers. Five core academic teachers with CPT shared a group of 100 students. During the middle of the second year of implementation, surveys were given to all students (teamed and not), all seventh grade teachers (teamed and not), and parents of the teamed students. Survey questions investigated school climate and environment, student interactions, safety, student transition issues, and teacher communication. Other data collected included discipline records and student grades (report cards).

Significant relationships were found between the variables and the new teams (Kokolis, 2007). Of the teamed students, discipline referrals had decreased 25% when compared to the previous year. Fewer teamed students (n = 11) needed disciplinary interventions, than those not on the team (n = 37). A similar positive impact was seen on student academic performance. For both years studied, 7% of the non-team students failed a core course subject. During this same period, only 2% and 4% of the teamed students failed a class.

Affective measures pointed to the success of the experiment as well (Kokolis, 2007). Teamed students reported higher levels of comfort, enjoyment of school, and a deeper sense

of community than students not on the team. Parents of students on the team indicated that they felt teachers were more accessible; parents also highly valued opportunities to meet with the entire team during CPT, if needed. Anecdotal comments from parents indicated that they felt the transition to seventh grade was smoother for students on the team. Teachers recorded positive views towards CPT, especially the opportunity it afforded them to integrate curriculum. Teachers also felt that student morale was higher than in previous years. Following the success of the two-year pilot, the school decided to create a second team encompassing the rest of the seventh grade students.

Additional Ways Teaming Impacts Students

In addition to the well-documented impact of teaming upon student achievement, additional studies have found links to other affective measures as well. Examining the independent variable of teacher organization, Pounder (1999) compared teachers from a middle school with teacher teams (in place two years), with teachers at a middle school arranged by department. The sample of convenience was composed of two middle schools from the same school district; many variables were similar across schools such as student SES, size of student and teacher population, achievement scores, and the community itself. Data were collected via a survey measuring work-related teacher variables such as: communication and interactions with students, teachers, administration; level of skills; independence and autonomy; personal knowledge of students; knowledge of the work of other teachers; and collaboration. Students at both schools, chosen at random, completed a survey measuring their satisfaction with a variety of school structures and procedures.

Pounder's (1999) final sample contained teamed teachers from one middle school (n = 32) and their students (n = 51), in addition to teachers from the departmentalized middle

school (n = 34) and their students (n = 87). Demographic data showed that teamed teachers met together more frequently (M = 10.2 hours per month) than those arranged by departments (M = 5.33), although these differences were not statistically significant, $F(1, 47) = 0.670$, $p = .417$.

After generating descriptive statistics and utilizing an ANCOVA, several significant differences were found between the schools (Pounder, 1999). The unit of analysis was individual teachers, not teams, due to the small sample size (only two schools were involved in the study). The number of discrete teams involved was not stated. The author noted that as this was strictly an exploratory study, the level of significance was set at $p < .10$. Regarding the category of job characteristics, the teacher in teamed schools reported higher means on six of the seven subcategories. Differences were statistically significant for the *degree of skill variety required to do the work*, $F(1, 60) = 12.965$, $p = .001$. For the category of critical psychological states, means on all subscales (5/5) were higher for teachers on teams; significant differences were found in *knowledge of students*, $F(1, 60) = 6.414$, $p = .014$. When analyzing the category of outcome measures, means for the teamed teachers were higher in four of the five subcategories. These differences were statistically significant for the following: *growth satisfaction*, $F(1, 60) = 9.788$, $p = .003$; *general satisfaction*, $F(1, 60) = 6.155$, $p = .016$; *internal work motivation*, $F(1, 60) = 2.890$, $p = .094$; and *teacher efficacy*, $F(1, 60) = 2.902$, $p = .094$.

Pounder (1999) also found differences between means for the category of other work-related variables. Again, means for the teamed teachers were higher (2 out of 3 categories); differences were significantly different for the subscale *greater professional commitment*, $F(1, 60) = 4.414$, $p = .040$. The final teacher category measured work group/team variables.

As compared to the teachers who were not on teams, there were higher means for the teamed teachers on four out of the five subscales; significantly for *work group helpfulness and effectiveness*, $F(1, 60) = 17.136$, $p = .0001$.

Pounder's (1999) analysis of student data revealed that those assigned to teams reported significantly higher levels of satisfaction with regard to *relationships and interactions with fellow students*, $F(1, 136) = 8.426$, $p = .004$; as well as *safety and student discipline*, $F(1, 136) = 3.772$, $p = .054$, than those teachers arranged by department.

Pounder's (1999) data supported the claim that teachers on middle school teams found their teams helpful; teams provided a more effective means of accomplishing work tasks. Teamed teachers were more dedicated to their jobs. Not only did teamed teachers feel more competent and more effective, they also reported that they had greater satisfaction with the job and their own work than teachers in the unteamed school. All of this also led to higher levels of motivation among the teamed teachers than those participants who were arranged by department. Lastly, when compared to teachers arranged by department, teamed teachers personally knew their students more intimately; and their students, in turn, felt safer and more connected to their peers.

Teaming and Student Relationships with Peers. Damico, Bell-Nathaniel, and Green (1981) delved further into the effect teaming had upon student relationships with peers. Their descriptive study was used to investigate relationships between students of different races at schools that had teamed teachers, versus students in middle schools that did not. Taken from a population ($N = 3{,}500$) participating in a separate study, a random sample of 38% completed a survey measuring their perceptions of same and opposite race friends ($n = 1{,}326$). Sample composition reflected the ethnic ratios present within the participating

schools (70% white students, 30% black students). Students came from two middle schools with teams, and three schools that were organized departmentally.

After performing an initial one-tailed *t* test, followed by a MANOVA and univariate analysis, Damico et al. (1981) reported a significant interaction between teacher organization and the frequency of inter-race friendships. White students in teamed schools had significantly more black friends than white students at non-teamed schools ($F = 1.56$, $p < .001$). The ratings students gave to other-race friends also showed a significant positive correlation with the number of friendships. The more friends of different races that students reported, the more highly they rated the positive attributes of those friends. Authors hypothesized that the teamed structure provided more authentic opportunities for students of all races to get to know one another, work with one another, and engage in meaningful communications. The researchers wondered, if students did not have frequent chances to interact, how could they possibly develop real friendships with one another? Teams sharing a common set of students provided that structure for students.

Teaming and Student Connections to School. There have also been studies conducted that explored ties students had not only to peers, but to the school community in general. Soukup (2009) measured the perceived sense of community felt by students on middle school teams from 14 schools in Illinois. Previous research found positive correlations between students' sense of community and levels of academic achievement, lower rates of student drop-out, and lower rates of student truancy (Arhar, 1992; Royal & Rossi, 1996; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). Soupkup (2009) categorized each school as either *high* or *low* with respect to implementation of teaming practices. Administrators at participating middle schools completed a *Teaming Strategies*

Checklist created by the author. Six separate team aspects were measured: organizational structure, identify formation, interdisciplinary teaching, common planning, flexibility, and advisory programs. If a school implemented more than 75% of the recommended strategies for one of these categories, they were classified as a *high* implementation school.

Only eighth grade students were chosen by Soukup (2009) to participate in the study, ensuring that subjects had been exposed to a teaming structure for three full years. This non-random sample of middle schools was chosen based on average qualifications with regard to: test scores (using state standardized tests in reading and mathematics), representation of student ethnic groups, and socio-economic status. Definitions of average were based on an analysis of state's report card data. In total, over 1,159 middle school students completed the *Sense of Community Index-2* (SCI-2) (Chavis, Lee, & Acosta, 2008), an instrument of 24 *Likert*-type questions.

Analysis of descriptive statistics by Soukup (2009) showed significant differences between the overall scores on the SCI-2 between *low* implementation schools *(M* = 36.829, *SD* = 13.058*)* and *high*, *M* = 41.908, *SD* = 12.834*; t*(1067) = -6.163, *p* = .000. Further analysis showed significantly higher scores on every single item measured at schools with *high* implementation of teaming strategies, as compared to schools with *low* implementation. The separate items measured were: *membership*, *influence*, *reinforcement of needs*, and *shared emotional connections*. In schools with a *high* implementation of teaming strategies students felt significantly closer and more connected to the school community, showing that it was important that teaming strategies were not only present, but implemented at high levels of fidelity with regard to all six aspects of the teaming construct. This research supports the

idea that for the full benefits to be experienced, teaming was not something that could be implemented in name only.

Arhar and Kromrey (1995) investigated the relationship between social bonding and a variety of school structures and demographic features. Prior research (McLaughlin, Talbert, Kahne, & Powell, 1990) had shown that close social and emotional ties between students and their schools had a positive effect on children's commitment to the school and their engagement in learning. In that research, McLaughlin et al. (1990) also discussed positive links found between strong social bonding and levels of teacher satisfaction. In her study, Arhar and Kromrey (1995) included a sample of 22 schools: 11 with teamed teachers and 11 without. She controlled for size of school, ethnicity, SES, gender, family structure, and geographic location. The size of middle school student populations ranged from 230 to 1,160 children; percent of minority population varied from 3% to 64%; percent receiving free or reduced lunch ranged from 1% to 55%; derived from an equal number of rural and urban schools from across the United States. In total, 4,761 seventh grade students completed a demographic survey and the Social Bonding Scales (Wehlage, 1989). This instrument measured student social bonding in relation to three separate constructs: peers, teachers, and the school.

Arhar and Kromrey (1995) found the a teamed teacher structure had a statistically significant impact at schools with a higher percentage of low SES students, $F(3, 1395) = 5.74$, $p < .001$. Univariate analysis of variance showed significant positive main effects for low SES students with teamed teachers on both the Peer Bonding Scale, $F(1,1430) = 6.79$, $p < .01$ and Teacher Bonding Scale, $F(1,1430) = 13.88$, $p < .01$. The authors hypothesized that in schools with a larger population of low SES students, where a larger percentage of

students came from single-parent households, these aspects may "make schools more influential in the lives of [their] students" (p. 79); when social supports were lacking in the larger community, adults and peers at school may have fulfilled these roles.

Bonds were not deepened between only students and other aspects of the school community, but bonds between the teachers themselves were also affected by the presence of teaming. In a more in-depth analysis of her research, Arhar (1994) observed that teacher teams, besides leading to increased levels of social bonding amongst students, also resulted in closer teacher-to-teacher bonding. Noting the typical isolation inherent in the profession, when teachers were placed on teams that planned collaboratively and worked together, they easily shared resources and ideas. Teamed teachers helped one another grow professionally by sharing past experiences and wisdom, as well as joined together to tackle larger problems. Arhar (1994) especially noted that CPT provided a valuable opportunity to increase these levels of closeness and collegial assistance.

Using a MANOVA (Arhar, 1994), data revealed that teacher teams had a statistically significant positive effect on student bonding of all three types ($p < .05$). When estimating effect sizes, and controlling for school size, teaming had the greatest effect on student bonding with their teachers ($ES = .159$), than bonding to school ($ES =. 102$), or to other students ($ES = .085$).

Arhar (1994) purposely selected teacher teams that displayed a high level of fidelity to the teaming concept for her study. Participating teams had at least three scheduled hours per week of CPT; spending the majority of that time addressing student needs, planning jointly, and engaging in other student-centered activities. In seven (of the eleven) teamed

schools, all one hundred participating teachers responded that they felt a personal and collective commitment to teaming.

Arhar (1994) noted that while teaming structures had a statistically significant positive effect on student bonding, it would be important to look more closely at the individual teams and investigate "what kinds of messages" (p. 346) were being given to students, both tacit and overt. She hypothesized that certain beliefs and attitudes pertaining to students and curriculum may be common among teamed teachers, and that these perspectives may be reflected in the team members themselves, as well as in their use of CPT.

Teaming Impacts Teachers

Students are not the only ones who benefit from teaming. Studies have shown that teachers on teams demonstrate increased levels on many affective measures as well. For example, Ayalon (1991) investigated the attitudes towards work environment expressed by teachers on interdisciplinary teams, in comparison to attitudes of teachers at middle schools arranged departmentally. All four participating schools were located in a large city in southern Arizona. The two schools with teams primarily served a low to middle SES, minority student population. One school with traditional departments had a 90% white student body with upper to middle SES; while the other departmentally-organized school contained a mixed population, both in terms of student SES and ethnicity. Representing a 44% rate of return, 47 teamed teachers completed the requested survey; while the other two schools posted a 40% rate of return (n = 77). The Teacher Opinion Questionnaire (Rosenholtz, 1989) sent to teachers examined 14 different aspects of the school environment, divided into five different categories: *relationship with colleagues*, *attitudes towards work*,

belief about professional life, *involvement in the school's decision making process*, and *administrators' roles*. Ayalon (1991) attributed the low rate of returned surveys to the fact that the instrument took participants approximately one hour to complete.

Ayalon's (1991) data analysis, including the use of *t*-tests, revealed significant differences between the two types of schools on five separate scales ($p < .01$). Teachers on teams felt significantly more positively towards their work environment with regard to: shared teaching goals, teacher socialization, isolation/cohesiveness, teacher collaboration, and administrator goal-setting. A Chi-Square analysis was conducted on teacher demographic information to ensure that the independent variable of school organization was a significant factor.

A random sample of 10% of the teachers participated in individual interviews that provided details and other examples to support the findings (Ayalon, 1991). Teachers in teamed schools expressed a great appreciation for the support, both emotional and material, continually provided by their team. They talked of sharing ideas and materials, collaborating on plans, and sharing frustrations with one another as they sought solutions together. Teamed teachers also articulated how the variety of strengths and expertise within their teams led to a complimentary unit, or family-feel to the teams. Teachers in schools arranged departmentally reflected less frequent communication, more feelings of isolation, and a recurrent formation of social cliques among the staff.

Not only did teachers on teams feel more positively towards their work, research also supported the concept that they were more satisfied with their jobs in general than teachers at schools arranged departmentally. While investigating the strength of the connection between teacher job satisfaction and the presence of effective teaming characteristics, Oliver (2007)

utilized a sample of convenience consisting of middle schools (n = 20) with student populations of 400 to 800 students. Teacher participants (n = 552) completed two questionnaires. The level of teacher job satisfaction was measured using the *Mohrman-Cooke-Mohrman Job Satisfaction Scales* (MCMJSS, 1978); presence of highly effective teaming characteristics was measured with the *Team Excellence Feedback for Development Instrument* (LaFasto & Larson, 1990).

Teaming, Job Satisfaction, and Team Effectiveness. Oliver (2007) executed Spearman correlations to examine the relationships between variables. There were many correlations between levels of job satisfaction and different characteristics of team effectiveness. The strongest relationship existed between intrinsic job satisfaction (r_s = .49), extrinsic job satisfaction (r_s = .55), and the teaming variable of *external support and recognition*. Other moderate correlations existed between extrinsic and intrinsic satisfaction for the following categories of teaming practices: *principled leadership* extrinsic satisfaction (r_s = .44); intrinsic satisfaction (r_s = .41), *collaborative climate and standards of excellence* extrinsic satisfaction (r_s = .41); intrinsic satisfaction (r_s = .34), *communication system* extrinsic satisfaction (r = .42); intrinsic satisfaction (r_s = .23), *unified commitment* extrinsic satisfaction (r_s = .40); intrinsic satisfaction (r_s = .29), and *results driven structure* extrinsic satisfaction (r_s = .47); intrinsic satisfaction (r_s = .36).

Further analysis conducted by Oliver (2007) involved the use of stepwise multiple regression analysis. This work revealed that the strongest predictor of intrinsic job satisfaction was the team variable *external support and recognition*, accounting for over 25% of the variation found. It was also the strongest predictor of extrinsic job satisfaction, accounting for one third of the variation found ($p < .0001$).

Oliver's (2007) results noted positive relationships between levels of job satisfaction and the presence of specific effective teaming practices. He observed that teaming provided opportunities for teachers to regularly engage in closer interpersonal relationships with one another, leading to true collaboration, a critical element of school improvement. In his final recommendations Oliver noted that it was critical to "allow more time for teachers to collaborate and work on teams," viewing this as the best path to "meaningful and continuous school reform" (p. 73); without authentic relationships high levels of job satisfaction, pride, and efficacy might not be achieved.

Teaming and CPT

The following section synthesizes pertinent literature that specifically focused on the effects of CPT. Research has shown connections between the use of CPT and a wide variety of other constructs such as strong middle school programming, student self-concept, teacher perceptions of work environment, effective instructional practices, constructive team behaviors, positive organizational outcomes, and teacher efficacy.

Upon close examination of the research pertaining to teams and successful middle schools, it became apparent that the existence of CPT was a critical factor. Andrejack (2007) investigated the impact teaming had upon middle schools that had been awarded the federal Blue Ribbon School Award. The researcher wanted to see how much teaming influenced the levels of excellence recognized by such a prestigious award. Using a mixed-methods design, surveys were sent to all middle schools awarded the Blue Ribbon in the state of Pennsylvania since 1990 ($n = 33$), excluding a school used in the author's pilot study, and one he chose to use as a basis for a case study supporting the findings of the survey. Eighteen schools contributed to the final data collection.

Four surveys were sent to each exemplary middle school, as well as a copy for the principal. Forty-six surveys were returned from teachers, representing a 47% rate of return; 17 principals returned surveys, demonstrating a 52% level of return (Andrejack, 2007). One survey investigated perceptions and constructs pertaining to teacher teams. It contained three separate sections: opened-ended responses, 46 questions using a Likert-type scale of response, and a final section with 10 statements participants ranked in order of importance.

Andrejack's (2007) findings, taken the descriptive data analysis of survey information, supported the importance of teaming with regard to a school's academic excellence and Blue Ribbon status. For example, 98% of all respondents saw a direct relationship between the enhanced teacher collaboration fostered by teams and higher levels of student achievement. More importantly, 98% of respondents noted that CPT was essential to this success, for both the team and the effect their efforts had upon students. The study's author found that teaming was the glue connecting teachers, administrator, students, and parents; teams united everyone, teams created a common focus on student success. Teams were the thread that tied all efforts together; they were the foundation these exemplary middle schools were built upon.

CPT and Strong Middle School Programming. In a separate study, using data gathered from middle school principals, Epstein and Mac Iver (1990) reported several interesting findings. The sample consisted of 2,400 public schools, randomly selected from an initial pool of 25,000 (excluding private and parochial schools). Data were received from 1,753 schools, via mail and telephone interviews; a response rate of 73%. Principals completed an 11-page survey addressing a variety of middle school aspects including: school structures, schedules, supports, routines, teacher characteristics, middle school philosophy,

instruction, staffing arrangements, student demographics, assessment procedures, and types of communication.

Just over 40% of the responding middle schools had some form of interdisciplinary teaming. Seventy percent of these schools reported that their teams had CPT (Epstein & Mac Iver, 1990). Those without CPT noted that it was difficult for teachers to engage in team activities, such as joint planning or discussing student problems. Ironically, the most frequently cited problem the schools with teams reported was that they wished they had more CPT.

Survey results indicated that schools with teacher teams had stronger programs overall (Epstein & Mac Iver, 1990). These schools reported more frequent and higher quality interactions with parents than schools that did not have teacher teams. When compared to the non-teamed schools, teamed schools also noted increased coordination among the teachers with regard to homework assignments, student discipline, scheduling, and field trips; in addition, teams helped facilitate the quick, smooth integration of new teachers. Principals who completed the surveys also reflected on other advantages of teams including: increased levels of social and emotional support between the teachers on teams, more effective instruction (due to the coordination and integration of learning activities), as well as increased team spirit and positive attitudes amongst students. Survey results revealed that teacher teams were better able to quickly recognize and address student problems than teachers could at middle schools that did not have teacher teams. An added benefit noted by the study was that teamed teachers modeled the very type of collaboration and cooperative work strategies they encouraged amongst students.

In a further analysis of the same data set, Mac Iver and Epstein (1990) classified the strength of a school's commitment to interdisciplinary teaming on a scale of 0 to 3. Schools that received the highest rating (a score of 3) had teams at multiple grade levels, more than two hours of CPT per week per team, and reported that teams engaged actively in collaborative work during CPT. Interestingly, the two different types of schools reporting the highest levels of commitment to teaming were at extreme ends of the spectrum: schools in high income areas serving parents with professional and managerial professions; and schools in urban areas with high concentrations of low SES, low-achieving students. The authors hypothesized that urban schools, facing more serious achievement problems, may have been more willing and open to fully committing to effective strategies such as teacher teams. Additionally, the researchers assumed that more affluent, high-achieving schools had the funds and freedom to invest resources in more expensive staffing arrangements such as teaming.

Mac Iver and Epstein (1990) also noted that schools with a commitment to teacher teams and more CPT reflected stronger academic and social programs in general, as compared to schools without CPT, or whose teams did not plan collaboratively during CPT. A multiple regression analysis supported findings that these schools committed to teaming had more extensive remedial programs ($r = .11$, $p < .001$), provided more supportive group advisory activities ($r = .22$, $p < .001$), and had low ratios of students to guidance counselors ($r = -.05$, NS). Schools with high commitment also had the lowest reported frequency of various problems when researchers measured the interaction between the two variables, $\Delta R^2 = .01$, $t\ (1047) = 3.55$, $p = .0004$. As listed on the survey, types of problems encountered by

team members included: personality differences among team members, lack of CPT, low student morale, inadequate professional development, and ineffective classroom instruction.

CPT and Student Self-Concept, School Satisfaction, and Teachers' Perception of Work Environment. Warren and Muth (1995) investigated the effect of team structures upon both students and teachers. Twelve separate middle schools were compared: four without teams (organized departmentally), four with teams (but no CPT), and four with teams that had CPT. Schools represented rural and urban settings. Populations ranged from 408 to 1,235 with regard to number of students per building. Percent of minority students ranged from 24% to 68%. In the schools with CPT, meetings were observed by an outside expert in order to ensure fidelity to the concept. These teams also had to provide documentation and evidence that CPT was used to diagnose individual student problems, plan team events, coordinate lessons, increase knowledge of students, and decrease teacher isolation.

In a desire to include students who had spent the maximum amount of time possible in a middle school setting, Warren and Muth (1995) randomly chose two classes of eighth grade students at each site. After excluding students who had not been present at a specific school for all three years, 494 students formed the sample (224 male, 270 female). Participating teachers (n = 82) were selected based on the fact that they had taught these participating students.

Three separate instruments were administered to the participants (Warren & Muth, 1995). First, students completed the *Self Description Questionnaire-II* (Marsh, 1990). This self-reported measure included 102 items assessing overall self-concept. Students also completed the *Quality of School Life Scales* (Epstein & McPartland, 1977), another self-

reported measure that included 27 items evaluating student perceptions of school climate, satisfaction (with school), commitment to class work, and opinions about teachers. The final instrument, *Teacher Opinion Questionnaire* (Rosenholtz, Hoover-Dempsey, & Bassler, 1985), was administered to the teachers to assess their perceptions of their work environment via 78 different items.

Using an ANOVA, data were analyzed (Warren & Muth, 1995). With regard to student self-concept, significant differences were found between the three types of schools, $F(2, 21) = 4.96$, $p < .05$. Students on teams with CPT had significantly higher self-concepts ($M = 485.36$, $SD = 22.31$), than students whose teams did not have CPT ($M = 457.58$, $SD = 16.44$), and those students whose teachers were organized into departments ($M = 456.96$, $SD = 22.49$). There were no significant differences found between the students on teams without CPT and those from schools with no teams at all.

Warren and Muth (1995) conducted an analysis of the composite student scores from the *Quality of School Life Scale*, as well as the individual subscales, using Dunn-Bonferroni tests. With regard to the students' overall perceptions of school climate, there were significant differences among the three types of schools, $F(2, 21) = 173.61$, $p < .001$. Students on teams with CPT had significantly higher scores ($M = 19.56$, $SD = 1.33$), than students whose teams did not have CPT ($M = 12.33$, $SD = .62$), and those whose teachers were arranged departmentally ($M = 7.47$, $SD = 1.72$). This time there was a significant difference among the other two types of schools as well. Students whose teams did not have CPT had a significantly higher perception of school climate ($M = 12.33$, $SD = .62$), than those whose teachers were organized by department ($M = 7.47$, $SD = 1.72$).

As far as the individual subscales were concerned, Warren and Muth (1995) noted that with regard to *satisfaction with school*, there were significant differences among the three types of schools, $F(2, 21) = 51.82$, $p < .001$. Students on teams with CPT had significantly higher scores ($M = 3.84$, $SD = .58$), than students whose teams did not have CPT ($M = 2.04$, $SD = .25$) and those whose teachers were arranged by department ($M = 1.49$, $SD = .55$). In addition, students whose teams did not have CPT had a significantly higher satisfaction with school rating ($M = 2.04$, $SD = .25$) than students whose teachers were not teamed ($M = 1.49$, $SD = .55$).

On the subscale *commitment to class work*, Warren and Muth (1995) found significant differences among the three types of schools, $F(2, 21) = 70.28$, $p < .001$. Students on teams with CPT had significantly higher scores ($M = 8.21$, $SD = 1.18$) than students whose teams did not have CPT ($M = 4.99$, $SD = .55$) and those whose teachers were arranged departmentally ($M = 3.09$, $SD = .78$). Finally, students whose teams did not have CPT had a significantly higher *commitment to class work* score ($M = 4.99$, $SD = .55$) when compared to those whose teachers were not teamed ($M = 3.09$, $SD = .78$).

On the last subscale, *reactions to teachers*, Warren and Muth (1995) again found statistically significant differences among the three types of schools, $F(2, 21) = 51.89$, $p < .001$. Students on teams with CPT had significantly higher scores ($M = 8.43$, $SD = 1.32$), than students whose teams did not have CPT ($M = 5.28$, $SD = .38$), and those whose teachers were organized according to academic subject areas ($M = 3.40$, $SD = 1.05$). Students whose teams did not have CPT had scores indicating a significantly more positive *reaction to teachers* ($M = 5.28$, $SD = .38$) when compared to those students whose teachers were not teamed ($M = 3.40$, $SD = 1.05$).

The final comparison conducted by the researchers pertained to teachers' perceptions of the work environment (Warren & Muth, 1995). Using an ANOVA, statistically significant differences were found between the teachers' scores at all three types of schools, $F(2,42) = 5.34$, $p < .01$. Using a Dunn-Bonferroni, the only significant difference was found between teachers on teams with CPT ($M = 298.64$, $SD = 36.68$), and those organized departmentally ($M = 232.38$, $SD = .58.71$). No other statistically significant differences were found.

Warren and Muth (1995) hypothesized that CPT helped decrease teacher isolation and provided regular opportunities for teacher collaboration on a variety of activities. This may have contributed to the more positive perceptions teachers on teams with CPT had of their work environment. The researchers thought that when teachers had regular chances to share ideas and information, they became more aware of the fact that everyone faced similar problems. In closing, the authors noted that more research was needed to study teams with CPT. They were especially interested in "the relationships among the teachers on the interdisciplinary team. For example, are there certain background and personality combinations that work more effectively than others?" (p. 56).

CPT and Team Effectiveness. The frequency of CPT can impact a team's general effectiveness. Hill (2001) explored the relationship between team effectiveness and CPT. The *Interdisciplinary Team Audit* (Presko, 1998), the instrument used to measure team effectiveness, had 30 items divided into four separate constructs to be measured: *instructional practices* (12 items), *student orientation* (10 items), *team organization* (4 items), and *team structures* (4 items). Team leaders completed the instrument, as well as a *Planning Time Questionnaire* developed by Hill (2001). This questionnaire consisted of six brief prompts pertaining to team demographics, in addition to length and frequency of CPT.

The sample of convenience was drawn from all middle schools in the state of Arkansas (Hill, 2001). Of the 132 public schools contacted, 91 had teamed teachers and a middle school structure; 57 of these schools completed the survey, a response rate of 63%. The completed surveys represented 193 different teacher teams. Amounts of CPT were split into four categories: *none* (n = 33), *low* (CPT once per week) (n = 50), *medium* (CPT two to three times per week) (n = 29), and *high* (CPT four to five times per week) (n = 81).

Hill (2001) conducted a MANOVA, and follow-up ANOVA, to identify significant differences between teams. All correlations were significant at the level of $p < .01$. When considering frequency of CPT, composite mean scores between types of teams were significantly different, F (12, 487) = 6.96, $p < .001$); as well as three of the four subscales: *student orientation* (F = 6.18, p = .014, M = 8.25, SD = .81), *team organization* (F = 13.94, p = .00, M = 7.95, SD = 1.22), and *team structures* (F = 48.89, p = .00, M = 8.52, SD = 1.02). Teams with *high* levels of CPT also had the highest mean scores for team efficacy, once again demonstrating the importance of CPT.

In a similar study that examined the effect of different amounts of CPT, Drolet (2009) measured correlations between CPT and team efficacy. Using five separate middle schools, teachers (n = 147) completed a survey about teaming that contained 24 Likert-type questions, adapted from Rottier's *Teacher Survey Instrument* (2001). All participating middle schools were located in suburban settings, with student populations ranging from 400 to 650. One school (20% of total respondents) had *little* CPT (less than 100 minutes per week); two schools (46% of respondents) had an *average* amount of CPT (100 – 200 minutes per week); while two schools (34% of respondents) had *high* levels of CPT (more than 200 minutes per week).

The use of descriptive statistics by Drolet (2009) supported the idea that higher levels of CPT led to higher levels of school success and teacher efficacy. Running multiple one-way ANOVA's, significant differences were found between *high* teams and the other types of teams on seven individual best practices measured ($p = .0166$). The *high* schools reported significantly higher scores on measures of team effectiveness when compared to *average* teams in the following categories: *connecting interdisciplinary content* ($F = 4.83$, $p < .009$); *coordinating student assignments* ($F = 5.55$, $p < .005$); *set and work towards yearly team goals* ($F = 8.85$, $p < .000$); *discussing developmentally appropriate teaching strategies* ($F = 4.33$, $p < .015$); and *flexible scheduling and grouping* ($F = 13.21$, $p < .000$). The *high* schools reported significantly higher scores when compared to *low* schools in the following categories: *rotating leadership tasks* ($F = 6.23$, $p < .003$); *using CPT effectively* ($F = 7.02$, $p < .001$); and *flexible scheduling and grouping* ($F = 13.21$, $p < .000$).

It was interesting to note that the overwhelming majority of all teachers surveyed, regardless of amount of CPT (*little, average, high)*, strongly felt that teaming practices were important for student success (Drolet, 2009). Answers that elicited over 80% agreement from all participants (as shown by responses of *often* or *always* on the Likert-scale employed) included questions pertaining to effective communication with parents, administrators, and special educators (three separate questions); and one question regarding cooperation and support from team members. It was clear that teachers valued their teams highly, and clearly saw a link between teams and school success. It was even more apparent that higher levels of CPT led to improved functioning of a team with regard to the most effective and research-supported middle school practices.

Other studies have found support for the idea that reduced CPT leads to less effective teams. An extensive survey was distributed as part of a comprehensive data collection involving middle schools (*n* = 1,798) from across the United States (McEwin, Dickinson, & Jenkins, 1996). Questions pertained to school demographics, curriculum and instruction, grade configuration, assessments, course offerings, faculty background and training, guidance, and extra-curricular offerings. Findings regarding teams supported the belief that team effectiveness decreased when CPT was not available. Without dedicated time to coordinating activities and discussing student progress, team members were unable to overcome scheduling challenges that precluded meeting together. This led to an inability to coordinate curriculum and instruction, and a general decimation of the team concept. As the authors noted with regard to CPT, "Where it is absent, teams face a daunting agenda of time and effort without support. When teams without common planning time wither, it is understandable" (p. 40).

CPT, Achievement, and Instructional Practices. Teams with CPT can also lead to improved teaching and learning in the classroom. A study by Reed and Groth (2009) provided "further evidence that structured use of cross-curricular academic teams can lead to improved integration of subject matter and to deeper understanding of content and pedagogy related to state standards" (p. 17). The participating middle school was located in an urban setting and served a somewhat diverse pool of approximately 700 students (33% minority), 50% of whom were low SES. A newly formed team of four, sixth grade teachers (all with 15 years or more experience) was studied over the course of one school year as staff development was embedded into their CPT.

An external researcher met with the team monthly: facilitating discussions, documenting conversation topics, generating field notes, and examining artifacts from the teachers' work (Reed & Groth, 2009). The investigator also interviewed participants individually to explore the relationships developing among team members, as well as their perceptions of students' learning. Teachers' perceptions of students positively shifted throughout the year as teachers saw more direct connections between their actions and positive student results. Participants expressed excitement and felt more successful in their own classrooms after introducing new teaching and learning strategies they had collaboratively developed during CPT. They began to actively seek out new ideas and techniques during this time. Showing the positive impact of CPT after eight months, the team spontaneously engaged in these types of activities without the presence and prompting of the researcher/facilitator. They also began to ask for overt help and sought solutions from one another, taking more risks and exposing personal areas of weakness. The group shifted towards a focus on proactively discussing and planning future lessons, instead of simply discussing and dissecting lessons previously taught.

Similar movement towards more positive teacher perceptions of student learning was time dependent as well (Reed & Groth, 2009). Initially, teachers expressed negative views of student learning behaviors. Teachers expressed frustration with the low levels of motivation and engagement exhibited by many of the students that seemed to struggle the most. Again, it was not until the eighth month of the study that teachers began to see overt connections between increased student interest and the more challenging, purposeful lessons planned in collaboration with the teacher team. Teachers saw a direct connection between their actions in the classroom and positive student behaviors.

Further impact was seen when students' state test scores were examined. The middle school showed improvement in average passing rates on state tests in all subject areas, exceeding state requirements (Reed & Groth, 2009). The school's Academic Performance Index (API), a measure of growth and general educational success, rose from 1,005 to 1,276; outpacing other middle schools in the district (1,007 to 1,194).

In closing, Reed & Groth (2009) noted the importance of CPT for teachers to "build their self-efficacy by supporting one another in adopting new approaches" (p. 18). When team members verbalized their beliefs, fears, and ideas about teaching and learning, peers were able to truly change the ways in which they interacted with one another, as well as with the students in their classrooms. All these changes positively affected teacher's perceptions of students and team collegiality, resulting in raised achievement scores.

CPT and Specific Team Behaviors. Other studies have investigated links between CPT and specific actions and habits of the team members themselves. A large-scale research project, the Middle Start Initiative, was conducted in Michigan over several years (Flowers, Mertens, & Mulhall, 2000a). This project aimed to document current routines and structures common among middle schools in the state, share best practices among a network of participating schools, encourage leadership initiatives, and develop a baseline data set to compare later results against. The instrument used to collect information was the *School Improvement Self-Study*, a self-reported survey developed by the Center for Prevention, Research, and Development at the University of Illinois. There were separate teacher, student, parent, and administrator surveys.

Among the 155 middle schools that completed surveys, data from particular schools were chosen for special analysis as part of this study, based on levels of teaming (Flowers et

al., 2000a). Three separate categories were created; those rated *high* were middle schools with formal teacher teams that had CPT at least four times per week, with at least 30 minutes per meeting (n = 25). The second category, *low*, included schools that had some CPT but at a lower frequency and duration (n = 76). The final category, *none*, had no formal teacher teams and no CPT (n = 34). Twenty middle schools were excluded altogether because they were classified as special education schools or alternative schools.

Statistical analysis conducted by Flowers et al. (2000a) found that *high* teams engaged in specific, effective team practices significantly more often than the other two types of schools. These team activities were: *curriculum coordination*, *coordination of student assignments and assessments*, *parent contacts and involvement*, and *contact with other building resource staff*. Once again, teams with more CPT were found to engage more frequently in activities that improved school life for students and teachers alike.

Additional correlational analyses conducted by the researchers explored the quality of the interactions among the team members (Flowers et al., 2000a). Team interactions were "measured by how much teachers agree that their teams have a positive climate, are effective in their work, and relate well to students, parents, and other individuals at the school" (p. 55). The data revealed a positive relationship between *high quality* team interactions and high levels of frequency pertaining to the team's engagement in effective team practices ($p < .01$): *curriculum coordination* (r = .37 to .73), *coordination of student assignments and assessments* (r = .42 to .76), *parent contacts and involvement* (r = .30 to .64), and *contact with other building resource staff* (r = .26 to .64). The researchers hypothesized that the ways in which a team interacted affected their effectiveness overall, shown by the frequency and quality of the team activities in which they engaged.

Further analysis, using information gleaned from two more years of data collection (Flowers, 2000), revealed positive correlations between classroom instructional practices and the frequency of the four effective team activities listed above ($p < .01$). Frequency of activities ranged from: *never*, *several times a year*, *monthly*, *several times a month*, *weekly*, *several times a week*, to *daily*. These classroom practices were described as: *small group active instruction* ($r = .13$ to .48), *integration and interdisciplinary practices* ($r = .42$ to .83), *master-based assessment and student recognition* ($r = .36$ to .52), *critical thinking enhancement practices* ($r = .11$ to .41), *authentic instruction and assessment* ($r = .22$ to .51), *reading skill enhancement practices* ($r = .24$ to .50), *writing skill enhancement practices* ($r = .11$ to .43), and *mathematical reasoning and skill enhancement practices* ($r = .16$ to .35). The strongest relationship ($r = 0.83$, $p < .01$) was found between *curriculum coordination* (team activity) and *integration and interdisciplinary practices* (classroom activity). *Curriculum coordination* and *coordination of student assignments and assessments* were found highly correlated with almost all classroom activities measured.

Flowers (2000) also examined the three levels of teaming (*high*, *low*, *none*) and their relationship to the frequency of high-quality classroom instructional practices. Strong positive correlations were found between *high* schools and *integration and interdisciplinary practices*. Teams with more CPT demonstrated a significant change in classroom instruction with regard to their ability to make connections and coordinate learning activities between content areas.

Three years later, Mertens and Flowers (2003) conducted a similar analysis with a different data set. Using the same *School Improvement Self-Survey*, data were obtained from parents, students, teachers, and administrators from 121 middle schools in Arkansas,

Louisiana, and Mississippi. Again, data were collected over a three-year period. More than 3,500 teachers participated. The majority of schools (57%) were located in rural areas (population 10,000 or less); the percent of low SES student population (more than 40% of the entire student body) was common to 83% of participating schools.

Significant positive correlations ($p < .01$) were found between team practices and classroom practices (Mertens & Flowers, 2003); the strongest ($r = .86$) amid the team practice of *curriculum coordination and integration* and the classroom practice of *integration and interdisciplinary practices*. Not surprisingly, these results mirror earlier ones found in Michigan. Findings were as follows: *small group active instruction* ($r = .41$ to .67), *integration and interdisciplinary practices* ($r = .57$ to .86), *authentic instruction and assessment* ($r = .41$ to .74), *critical thinking practices* ($r = .49$ to .75), *reading skill practices* ($r = .49$ to .75), *writing skill practices* ($r = .42$ to .65), and *mathematical skill practices* ($r = .30$ to .49).

When analyzing frequency of CPT among these teams, 22% reported *high* levels of CPT, 28% *low*, and 50% *none* (Mertens & Flowers, 2003). Schools in the *high* category had the highest frequencies for team practices; next came *low* schools; and lastly, with a significantly low level of team practices, the schools in the category *none*. The same patterns were seen repeatedly; in schools with more CPT there were notable relationships with engagement in team practices. Similarly, *high* schools also recorded the highest frequencies of specific classroom practices; again, followed by the *low* schools. While these observed differences were not as distinct as those pertaining to team practices, the relationship between classroom practices was significant in two areas: *integration and interdisciplinary practices* and *reading skill practices*.

Another intriguing finding of Mertens and Flowers (2003) was a significant relationship between *high* levels of teaming and high reading scores at schools that reported the highest levels of poverty (60% or more students with low SES). These same schools also reported high levels of both classroom practices and team practices. Given the recent focus on addressing achievement gaps, it is important to continue to examine the effect teacher teams and CPT can have upon high-need populations.

CPT and Effective Classroom Practices. Continuing to examine further data collected as part of the Michigan Middle Start initiative, Mertens and Flowers (2006) analyzed teacher information from the *School Improvement Self-Study*. Concepts explored by the instrument included: attitudes towards middle school practices, relationships with parents, team activities, curriculum and instruction, climate (classroom and general school building), and professional development. Demographic information was also gathered pertaining to the subject area taught, experience, and certification. Data, gathered over a period of six years, were collected from 74 middle schools. Schools varied in terms of size, type of location (rural, suburban, urban), and student SES. While using the same definitions for the three levels of teaming (*high, low, none*) and the four measured team activities (*curriculum coordination, coordination of student assignments and assessments, parent contacts and involvement*, and *contact with other building resource staff)*; this time, the classroom practices measured were slightly different: *small group/active instruction, integration and interdisciplinary practices, authentic instruction and assessment, critical thinking practices, reading skill practices, writing skill practices*, and *mathematical skill practices.*

Employing a quasi-experimental design, self-study data were analyzed. Schools classified by Mertens and Flowers (2006) as having *high* levels of teaming, during the time period in which data were collected, showed the largest and most statistically significant gains in team practices on three of the four areas measured. These practices included: *curriculum and coordination* ($t = 2.46$, $p < .05$), *coordination of student assignments and assessments* ($t = 4.09$, $p < .01$), and *contact with other staff* ($t = 4.56$, $p < .01$). Once again, the idea was supported, that with more frequent and longer CPT, teams engaged in more collaborative activities that benefited themselves, students, and parents. While the other schools showed moderate gains, the results were not statistically significant.

Mertens and Flowers (2006) found that in *high* schools frequency of engagement in all seven measured effective classroom practices rose, three significantly: *mathematical skills practices* ($t = 2.41$, $p < .05$), *reading skill practices* ($t = 3.26$, $p < .05$), and *integration and interdisciplinary practices* ($t = 4.92$, $p < .01$). It was interesting to note that even schools with *low* levels of teaming made gains in six out of seven areas, although they were not statistically significant. Not surprisingly, schools in the *none* category actually declined in their frequency of effective classroom practices measured.

Student achievement data were used from a criterion-referenced, seventh grade test administered by the Michigan Educational Assessment Program (Mertens & Flowers, 2006). Schools in the *high* team category showed the largest gains in both reading (23%) and mathematics (14%) over the six years of data collection. These teams with more CPT were able to have a more significant impact upon student achievement.

CPT, Organizational Context, and Effectiveness Outcomes. While investigating the dynamics between particular variables and their impact on team effectiveness, Conley,

Fauske, and Pounder (2004) discovered many interesting direct and indirect relationships after conducting a descriptive and correlational study using survey data. Their sample of convenience included teachers from 15 different middle schools, serving 16,000 students, in a large urban city. With a response rate of 52%, the final sample (n = 174) excluded teachers not on teams, as well as any incomplete surveys. The average amount of experience was 14.9 years, 4.5 of those spent in their current school building.

Conley et al. (2004) asked teachers to complete a 23-item survey that used 6-point, Likert-type questions to explore initial or antecedent variables such as *organizational context* (six separate items), *design features* (five items), *interpersonal processes* (five items), *intermediate effectiveness criteria* (three items), and *final effectiveness outcomes* (four items).

Descriptive statistical analysis showed that participants felt their teams were moderately effective (Conley et al., 2004). Means for the four separate items pertaining to team effectiveness (*improved teacher and learning effectiveness*, *team commitment*, *team cohesion*, and *standards met*) were 3.86, 4.23, 4.50, and 4.38, respectively (on a 6-point scale). Most other variables were in the moderately strong range, excepting three of the organizational context subscales (*training sought*, *training provided*, *rewards/recognition*). These reflected low means of 2.86, 2.76, and 1.56, respectively.

Regression analysis was completed to explore relationships among the constructs (Conley et al., 2004). Regarding the *organizational context* items (*rewards/recognition*, *training sought*, *training provided*, *school support*, *conducive physical environment*, and *task clarity*), moderate to strong relationships were seen ($p < .05$ and $p < .01$) between these items and all three *intermediate effectiveness criteria* items (*effort*, *knowledge/skills applied*,

appropriateness of strategies), and two of the *final effectiveness outcomes* (*improved teacher and learning effectiveness*, *team commitment*). Only *task clarity* (an *organizational context* item) was a strong significant predictor for all four of the *final effectiveness outcomes* (*improved teacher and learning effectiveness*, *team commitment*, *team cohesion*, and *standards met*). This showed the importance of a team having clear goals and focus as the team members worked. Other findings were as follows: *training sought* and *rewards/recognition* (*organizational context* items) were significant predictors for one final outcome variable (*improved teaching and learning effectiveness*); *conducive physical environment* (*organizational context* item) was a significant predictor for the three *intermediate effectiveness criteria* items (*effort*, *knowledge/skills applied*, and *appropriateness of strategies*); *training sought* and *training provided* (*organizational context* items) were significant predictors of one *intermediate effectiveness criteria* item (*knowledge/skills applied*).

When examining the *design features* items, the *mix of expertise* item was found to be a significant predictor of all *final effectiveness outcome* items, except *team commitment* (Conley et al., 2004). This showed the strength of teams that represented a variety of subject disciplines, instead of departmental arrangements in which all teachers shared a common curricular expertise. With a wide range of talents and resources available to the team, teachers were better able to address problems in a more creative and efficient manner. *Group norms/permission* (*design features* item) was a significant predictor of the *intermediate effectiveness criteria* item *knowledge/skills applied*.

In the data analysis pertaining to the *interpersonal processes* items, a general pattern emerged correlating *interpersonal processes* items with *final effectiveness outcome* items

(Conley et al., 2004). Two items (*weighing/balancing inputs*, and *implementing performance strategies*) were found to be significant predictors of almost all *final effectiveness outcome* items (excluding *team cohesion*). *Coordinating efforts* (*interpersonal processes* item), was found to be a significant predictor of *appropriateness of strategies* (*intermediate effectiveness criteria* item), as well as of *standards met* (*final effectiveness outcome* item). *Inventing strategies* (*interpersonal processes* item), was a significant predictor of all but one *intermediate effectiveness criteria* items (excluded: *knowledge/skills application*). *Absence of negative strategies* (*interpersonal processes* item) was a significant predictor of two *intermediate effectiveness criteria* items (*effort* and *appropriateness of strategies*), as well as two *final outcome variables* (*team cohesion* and *standards met*).

A final analysis by Conley et al. (2004) consisted of the construction of a prediction model showing both direct and indirect influence of the antecedent variables on the intermediate and final outcome variables. A result of path analysis techniques, the model showed the interconnected nature of the most significant variables. Path coefficients were statistically significant at the level ($p < .05$), with 35.2% of the model's variance in the improved teaching and learning effectiveness accounted for by these paths. The model also accounted for a "sizeable" amount of the variance of the following intermediate variables: *effort* ($R^2 = .227$), *knowledge/skills applied* ($R^2 = .349$), and *appropriateness of strategies* ($R^2 = .449$). After further statistical analysis on the model (using Judd and Kenny's test of mediating effects) was performed, all eight indirect effects shown by the model were found to be statistically significant.

Given the dynamic nature of teams, with regard to both member composition and the work that is done, it was not surprising to see such patterns and relationships among the data.

The researchers noted with interest that higher levels of *interpersonal processes* items "have more direct and indirect effects on teaching/learning process that do organizational context or design features" (Conley et al., 2004, p. 691). These observations pointed to the importance of team interactions and communication. The largest impact on teaching and learning was not a product of staff development, content expertise, or team size; but the way in which the team actually functioned. All of the *interpersonal processes* items related to strategies the teachers employed while working together as a team. Once again, a team must exist in more than name only in order to have a significant impact.

CPT and Teacher Efficacy. Repeatedly teachers have indicated that not only do they enjoy working on teams, but they feel more effective in the classroom as a result of team membership. Two researchers, Warren and Payne (1997), investigated the effect organizational patterns had upon teacher efficacy and teacher perceptions of their working environment. Using a non-experimental research design, this descriptive study utilized a causal-comparative design. The researchers administered two different surveys to eighth grade teachers, from 12 separate schools, that comprised three different organizational structures of teams. Results showed organizational structure did have a significant impact upon personal teacher efficacy, as well as some factors pertaining to environmental perceptions.

The participating middle schools shared many qualities (Warren & Payne, 1997). Researchers controlled for student SES and school locale; as well as teacher age, experience, and salary. The number of low SES students ranged from 48% - 54%. All schools were located in rural or industrial areas. The teachers who completed the survey (n = 82) shared a mean age (ranging from 34.23 – 37.93 years), a mean level of teaching experience (ranging

from 13.2 – 15.72 years), received salaries ranging from $30,408 - $37,512, and all taught eighth grade. The sample of convenience was chosen based upon the organizational structure of the teacher teams at the participating schools. Four schools placed teachers on interdisciplinary grade-level teams with CPT, four schools had interdisciplinary teams with no CPT, and four schools were arranged by traditional academic departments (with no interdisciplinary teams).

Two surveys were administered to the teachers: *The Teacher Efficacy Scale* (TES) (Gibson & Dembo, 1984) and the *Teacher Opinion Questionnaire* (TOQ) (Rosenholtz, Hoover-Dempsey, & Bassler, 1985). TES is a self-reported, 30-item survey that measured both general and personal teacher efficacy. TOQ is also a self-reported survey that contained 78 separate items, divided into 10 separate subscales that measured teacher perceptions of work environment on a 5-point Likert-type scale ranging from *strongly agree* to *strongly disagree*.

After Warren and Payne (1997) performed an ANOVA and accompanying Tukey procedures, data indicated that teams with CPT scored significantly higher than the other two groups with regard to personal teacher efficacy on the TES, $F(2, 79) = 8.21$, $p < .001$. Teachers with CPT had significantly higher personal teacher efficacy scores ($M = 39.61$, $SD = 4.36$) than those without CPT ($M = 34.60$, $SD = 5.26$), and those organized departmentally, ($M = 35.76$, $SD = 4.69$). There were no significant differences between the teachers without CPT and those organized departmentally.

Warren and Payne (1997) found on all 10 subscales on the TOQ, data indicated that teams with CPT scored significantly higher. Using Tukey procedures again, the items of significant value were as follows. With regard to *homogeneity/shared values*, $F(2, 79) =$

8.89, $p < .001$; teams with CPT had significantly more positive perceptions ($M = 18.39$, $SD = 4.17$) than teachers arranged by department ($M = 14.14$, $SD = 4.31$). For *managing student behavior*, teams with CPT were significantly higher than both of the other groups, $F(2, 79) = 8.43$, $p < .001$. Teams with CPT scored ($M = 18.39$, $SD = 3.33$), as compared to teams without CPT ($M = 15.72$, $SD = 3.05$), and those teachers not on teams ($M = 14.79$, $SD = 3.78$).

On the item *instructional coordination*, again, teams with CPT scored significantly higher than both other groups, $F(2, 79) = 11.77$, $p < .001$. Teams with CPT scored ($M = 19.43$, $SD = 4.03$), as compared to teams without CPT ($M = 15.72$, $SD = 4.16$), and non-teamed teachers ($M = 14.38$, $SD = 3.97$). For the item *cohesiveness*, $F(2, 79) = 6.62$, $p < .05$, teams with CPT scored significantly higher ($M = 31.36$, $SD = 6.50$), than teachers arranged departmentally ($M = 25.21$, $SD = 7.02$). For *organizational rigidity*, teams with CPT were significantly higher than both of the other groups, $F(2, 79) = 13.01$, $p < .001$. Teams with CPT scored ($M = 32.21$, $SD = 4.36$), as compared to teams without CPT ($M = 28.44$, $SD = 4.48$), and teachers without teams ($M = 25.24$, $SD = 6.30$).

With regard to the item *goal setting*, $F(2, 79) = 6.13$, $p < .05$, teams with CPT scored significantly higher ($M = 22.18$, $SD = 4.55$), than teachers organized departmentally ($M = 17.86$, $SD = 5.19$). For the item *decision making*, $F(2, 79) = 5.31$, $p < .05$, teams with CPT scored significantly higher ($M = 21.00$, $SD = 4.22$), than teachers who were not on teams ($M = 17.62$, $SD = 4.04$). On the item *satisfaction/commitment*, teams with CPT scored significantly higher than both other groups, $F(2, 79) = 12.67$, $p < .001$. Teams with CPT scored ($M = 59.82$, $SD = 10.37$), as compared to teams without CPT ($M = 50.96$, $SD = 6.76$), and teachers arranged according to academic subject area ($M = 46.86$, $SD = 11.56$). For the

item *buffering*, again, teams with CPT scored significantly higher than both other groups, $F(2, 79) = 8.19$, $p < .001$. Teams with CPT scored ($M = 37.89$, $SD = 6.35$), as compared to teams without CPT ($M = 2.48$, $SD = 6.09$), and teachers without teams ($M = 30.52$, $SD = 8.43$). Lastly, similar results were found for the item *collaboration*, $F(2, 79) = 17.85$, $p < .001$. Teams with CPT scored ($M = 37.29$, $SD = 6.60$) significantly higher, when compared to teams without CPT ($M = 31.48$, $SD = 5.30$), and teachers organized departmentally ($M = 25.76$, $SD = 9.14$).

Warren and Payne (1997) noted that CPT appeared to make a critical difference in the ways teachers felt about their own teaching ability and job satisfaction. They hypothesized that being part of a teacher team reduced, "the alienation that many teachers feel by allowing them to be part of an intimate group of colleagues with whom they can identify and work" (p. 308). This level of comfort and collaborative work style in turn may have impacted the teachers' feelings of efficacy.

Teacher Efficacy

The construct of teacher efficacy stems from the construct of personal self-efficacy. Bandura (1977) described how an individual's beliefs pertaining to success in future endeavors influence his or her decision to act. If a person believes success is likely, he or she is more likely to attempt the task. As Bandura (1997) stated, "People try to exercise control over the events that affect their lives. They have a stronger incentive to act if they believe that control is possible– that their actions will be effective" (p. 4).

The construct of teacher efficacy extends from these ideas. It is defined as "the extent to which the teacher believes he or she has the capacity to produce an effect on the learning of the students" (Armor et al., 1976, p. 23). If teachers perceive that they are capable, that

their efforts will directly impact student learning, research has shown that their students will indeed achieve at higher levels when compared to students of teachers who have lower levels of teacher efficacy (Berman et al., 1977; Tschannen-Moran, & Barr, 2004).

Research conducted by Ashton, Buhr, and Crocker (1984) supported the idea that teacher efficacy is a norm-referenced construct. In this study, two different forms of an instrument created by the researchers (*Personal Teaching Efficacy Vignette Scale*, modified) were randomly distributed to 65 teachers in order to understand their orientation. In one version of the instrument answers were constructed in self-referential terms (personal), while the second form's questions provided answers in norm-referenced terms (in comparison to other teachers). Questions described difficult situations pertaining to: motivation, discipline, academic instruction, planning, evaluation, and parents. Subjects also completed the *Marlowe-Crowne Scale of Social Desirability* (Crowne & Marlowe, 1960).

Ashton et al.'s (1984) results supported a significant correlation between a norm-referenced perspective and their *personal teaching efficacy* scores ($r = .35$, $p < .05$). The self-referenced questions were not significantly correlated with *personal teaching efficacy* scores ($r = .09$). The self-reference perspective was significantly correlated though with data from the *Marlowe-Crowne Scale of Social Desirability* ($r = .35$, $p < .05$); while the norm-referenced vignettes showed almost no correlation ($r = .004$). These results supported the idea that teachers using a self-reference framework are more influenced by fears and anxiety related to social desirability. The authors concluded that, "teachers evaluate their effectiveness in terms of their performance in comparison to the performance of other teachers" (p. 40).

The issue now shifts to the problem of how teachers gather such knowledge about one another. The classic paradigm of individual teachers working in a classroom alone, the door shut, is one that has changed little over the last century. Where does a teacher's knowledge of a peer's performance come from? Ashton et al., (1984) observed:

> Research has indicated that teachers have very little information regarding the performance of other teachers beyond the tales carried by students . . . they are likely to base their own self-evaluation on a rather limited and biased perception of the effectiveness of others. This practice may contribute to the fragile and uncertain sense of competence characteristic of many teachers. (p. 40)

It is not surprising that teachers on teams display higher levels of efficacy. As part of a team, teachers are more likely to spend time together discussing curriculum, instructional practices, and classroom management. Through such discussions, especially those facilitated by regular CPT, teachers are exposed to knowledge concerning one another's performance and can develop a healthier and more realistic sense of their own abilities.

In an essay by Weasmer and Woods (1998), the author's noted that when teachers collaborate, higher levels of enthusiasm and unity resulted. In their experience they had found strong connections between this type of interaction among teachers, and higher levels of teacher efficacy. They noted that teachers with high levels of self-efficacy may positively influence those with lower levels, especially when schools provided formal opportunities for such exchanges to occur. The authors proceed to hypothesize that the feedback provided by peers while working as teams may be perceived by the recipient as less threatening than criticism obtained from administrators and other supervisors as part of a formal evaluation.

They felt that teams provided a less intimidating and less stressful environment in which teachers grew.

Attitudes

It is important to define and discuss *attitudes* due to the importance of this construct with regard to the research questions that guided this study. Gall et al. (2007) defined attitudes as "an individual's viewpoint or disposition towards a particular 'object' " (p. 220). These researchers described three separate components of attitudes: an affective component (feelings), a cognitive component (beliefs and knowledge), and a behavioral component (actions). All three components are viewed in relation to the "object" in question. Gall et al. (2007) defined "object" broadly; it may be a living or non-living physical item, an abstraction, or an idea. In terms of this study, the objects in question were material, such as students, as well as intangible, such as specific instructional techniques.

Attitudes are one of Gagné's (1972) five Learning Domains. In comparison to his other Domains (motor skills, verbal information, intellectual skills, cognitive strategies), attitudes are unique because of "the apparent requirement for involvement of a human person in the process of modifying attitudes" (p. 4). This particular property well suits the primacy of teams and CPT in this study. If attitudes are impacted by human interactions, attitudes would be influenced by time spent with other people in such settings as CPT meetings.

Gagné (1984) later noted that since attitudes cannot be directly observed, their presence must be inferred by the examination of other behaviors. In this study the researcher inferred teacher attitudes from direct verbal statements, voice tone and pitch, body language, facial expressions, and the observation of interactions between teachers and others (team members, students, administrators).

It is also important to note that attitudes are not purposeless, internal constructs. Gagné (1984) stated, "An attitude is an internal state that influences the choice of personal action" (p. 383). With regard to this study, there would be no point in studying participant attitudes if these attitudes did not have the potential to affect actual behavior.

Beliefs

The final construct of particular importance to this study is that of beliefs. Beliefs influence perceptions, as well as actions and decisions (Pajares, 1992). They are deeply personal, often socially constructed based upon individual experiences and cultures. Beliefs are also fairly inflexible, having much "stronger affective and evaluative components than knowledge" (p. 309). In his meta-analysis Pajares described how personal beliefs influence behavior more than actual knowledge about a topic or construct, while they are definitively intertwined, beliefs are "far more influential than knowledge in determining how individuals organize and define tasks and problems" (p. 311). Due to this phenomenon, it is important to note that value judgments are embedded in beliefs.

Pajares (1992) noted several characteristics particular to beliefs. For example, they are context specific. When studying beliefs, the author noted that it was important to know and state the area in which beliefs pertaining to are being examined. In addition to being connected to specific contexts, beliefs are also connected to one another. Pajares encouraged researchers to "think in terms of connections among beliefs instead of in terms of beliefs as independent subsystems" (p. 327).

Similar to attitudes, "beliefs cannot be directly observed or measured but must be inferred from what people say, intend, and do" (p. 314). This makes beliefs uniquely suited to qualitative study. Pajares noted that traditional means of measurement were of limited use

in the study of beliefs. "In addition to the problems inherent in all self-report instruments, belief inventories cannot encompass the myriad of contexts under which specific beliefs become attitudes or values that give fruition to intention and behavior" (p. 327). Pajares recommended the use of such methods as open-ended interviews, case studies, and observations to best study teacher beliefs.

Conclusion

It is clear that research supports the efficacy of middle schools in meeting the unique and nuanced challenges of adolescents (Carnegie Corporation of New York, 1989, 2000; NMSA, 2003, 2010). It is also apparent that the use of interdisciplinary teacher teams sharing CPT is factor critical to academic success, as well as a factor leading to higher levels of many other affective measures such as social bonding, climate, environment, and efficacy (Mertens et al., 2009). Unfortunately, the number of teacher teams, as well as the frequency and duration of CPT, have declined (McEwin, & Greene, 2010). In 2010 McEwin and Greene reported results of an electronic survey, regarding the levels of implementation of particular middle school structures. The authors compared a random sample of middle schools (n = 827) with one composed of highly effective schools (n = 101). The highly effective (HE) schools had been awarded the National Middle Schools to Watch Award (National Forum to Accelerate Middle-Grades Reform, 1998) or the Breakthrough Middle School Award (National Association of Secondary School Principals, 2012). The random sample (RS) represented a 30% rate of return, while the HE schools posted one of 54%. Results were also compared with similar statistics gathered previously (Alexander, 1968; Alexander & McEwin, 1989; McEwin, Dickinson, & Jenkins, 1996, 2003).

Results showed that with regard to the RS schools, for the first time since similar data were collected, the percent of middle schools using teams had declined (McEwin & Greene, 2010). In 1988 the percent of schools reporting teams was 30%; in 1993 it was 52%; peaking at 77 % in 2001; and had declined to 72% in 2009. In anecdotal data supplied by principals that completed the survey, many participants attributed this decline to recent budget constraints. Another decline was seen in the amount of CPT provided to teams at RS schools. In 2001, over 41% of schools with teams gave those teams at least 10 periods of CPT per week. By 2009, that number had dropped to 28%. Given the strong body of research supporting the efficacy of teams, these declines further underscore the need to continue conducting and disseminating research on the topic.

McEwin and Greene (2010) noted that HE schools recorded higher frequencies of the presence of teams (90%); the large majority of these (94%) providing at least five periods of CPT per week. Another interesting finding observed by the authors was the level of implementation of critical middle school structures, as compared to the value placed upon these structures by building administration. At RS schools, 63% of participants described teams as *very important*; but only 45% reported that this structure was *highly implemented* in their school buildings. In comparison, at HE schools, 81% of participants rated teams as *very important*; 71% reported that this structure was *highly implemented* at their schools. The correlation between what is valued and what actually occurred in schools was clear.

This Chapter discussed foundational research pertaining to adolescents, junior high schools, and middle schools, as well as effective middle school structures. The focus of this research study, teacher teams at highly effective schools with CPT, has been quantitatively explored by numerous researchers. Many positive effects have strong support from

researchers who measured student achievement, suspension rates, environment, self-efficacy, self-esteem, and climate (Erb & Stevenson, 1999; Flowers et al., 1999; Warren & Muth, 1995; Warren & Payne, 1997).

Despite these findings, recent research observed that both the existence of teams and frequency of CPT have declined (McEwin & Greene, 2010). This researcher chose to use a qualitative lens to delve more deeply into the topic in an effort to uncover new and vital information. It is most important, especially in these times of high-stakes testing and increased educational scrutiny to find further evidence validating the effectiveness of middle school teams with CPT.

CHAPTER THREE: METHODOLOGY

This study explored the qualities of effective middle school teachers on interdisciplinary teams sharing CPT by probing their attitudes and beliefs pertaining to: the concept of teams, middle school curriculum and teaching methodologies, student characteristics, school structures (physical and organizational), the role of administration, the role of parents, and the inter-related nature of a team's work habits and styles. Data were collected via the use of open-ended surveys (Appendix B), focus groups (Appendix D), individual interviews (Appendix C), and the examination of artifacts. A highly effective middle school was chosen as a sample of convenience. Participants included: teams sharing a common set of students and CPT, individual teachers, and building administrators.

This Chapter begins with a brief biography of the researcher and a discussion of ethical concerns pertinent to the study. Next, an overview is provided of the methodology used to explore the research questions stated below. A thorough description of the settings, subjects, and data gathering procedures follows, with accompanying theoretical support. Lastly, an explanation of the research design, instrumentation, data collection procedures, and methods of data analysis conclude this Chapter.

Researcher Biography

Inherent in the process of qualitative research is the fact that every researcher brings along his or her own personal experiences, history, and biases. Instead of worrying about how these factors may taint the data collection process or the information itself, it is important for the researcher to embrace this aspect of the inquiry, and acknowledge the prior experiences that influence the research. As Bogdan and Biklen recommended (2007), "the goal is to become more reflective and conscious of how who you are may shape and enrich

what you do, not eliminate it" (p. 38). In this spirit, a brief professional and personal biography follows.

This researcher was initially trained as a special and elementary school educator, first working with young children, aged three to five, with developmental delays. After completing a graduate degree in gifted education, the researcher began teaching at the middle school level, developing a gifted and talented program new to that district. This is the current position held by this researcher 14 years later.

Over the years, the researcher has been a full member of three, separate grade level teams with CPT. It became apparent, year by year, that while team members varied widely in temperament, age, and experience; all three teams were successful and effective in many ways. Over the past decade, this high-achieving middle school was a national Blue Ribbon recipient (National Blue Ribbon Schools Program, 2012), and twice awarded the Essential Elements Middle Schools to Watch Award (Schools to Watch, 2012). The longer the researcher spent working with the different teacher teams, the more she began to wonder what role their collaborative work played in these successes.

Working intimately with students and teachers over the years had exposed the researcher to a wide range of individual characteristics, work styles, and personalities. Middle school students are mercurial, effervescent, passionate, and unpredictable. But, time after time, these teacher teams showed that there were many ways to reach and teach them. The researcher wondered if these were techniques they had learned in college via teacher preparation programs, or perhaps instinctive and intuitive leaps made in the moment. Maybe these actions were inspired by watching other team members. The source was not clear.

Through the years, the researcher continued to grow professionally, presenting regularly at national educational conferences and completing a second Masters' degree in educational administration. She was a member of district-based committees that successfully pursued the federal Blue Ribbon Award (National Blue Ribbon Schools Program, 2012), as well as the Essential Elements Middle Schools to Watch award (Schools to Watch, 2012). As an outgrowth of this work, the researcher is currently a formal evaluator for the Schools to Watch Award for New York State. This involved annual screening of applications, as well as participating in multi-day site visits in order to more closely evaluate aspiring schools. Both activities required specific training in middle school program evaluation, as well as the ability to work with team members to complete a comprehensive written report, later shared with applicants.

It was following the commencement of a doctoral degree in instructional leadership that the researcher began to entertain the idea of studying middle school teams. Over the next four years, continually exposed to research methodologies and theories, the research study upon which this dissertation was based began to take shape. It was hoped that the resulting insights could be used with middle school teachers and administrators, to further support teams and students.

Statement of Ethics and Confidentiality

Stake (2005) observed, "Qualitative researchers are guests in the private spaces in the world" (p. 459). With this trust and privilege in mind, permission to participate in this research was sought from the district superintendent, assistant superintendent, middle school principal, assistant principals, and all participating teachers. To assure confidentiality each participant was assigned a coded identification number. If a participant was specifically

described or quoted within this work, a pseudonym was randomly assigned as well. All data were collected by this researcher; confidentiality of data was maintained at all times. Data pertaining to specific interviews were made available, upon request, only to the corresponding interview or focus group participant(s). Findings were accessible to this researcher, professors, and students enrolled in Western Connecticut State University's Doctor of Education in Instructional Leadership Program.

Research Questions

1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Setting, Sampling Procedures, and Participants

Setting and Sampling Procedures

Using a purposive sample of convenience, a list was composed of 15 highly effective middle schools within a 100-mile distance from the researcher's home. These schools had been awarded the Essential Elements Middle Schools to Watch Award (Schools to Watch, 2012), or the NELMS Spotlight School Award (NELMS, 2010) (Appendix A). From this pool of potential schools, the researcher first approached the school geographically closest.

The participating middle school had been formally recognized as highly effective as judged by an outside team of evaluators using multiple qualitative and quantitative criteria. This school had been awarded the NELMS Spotlight School Award. The award application process involved extensive self-study, in addition to a visit by an outside team of middle school educational experts. During the evaluation, areas such as curriculum, instruction,

teachers, teaming, governance, environment, parents, and the community were examined. Surveys were distributed to faculty members, other staff, parents, and students. The site visit lasted three days and involved a team of five middle school educational professionals. The visitors interviewed students, teachers, parents, and administrators; visited classrooms; attended CPT meetings; and observed after-school clubs and sports activities.

According to the organization's website, "A NELMS Spotlight School is recognized for developing effective programs that reflect the concepts contained in *Turning Points 2000* and *This We Believe*" (NELMS, 2010). These concepts are research-supported practices regarding the ideal instructional methods, organizational relationships, curriculum, and school environment that best help middle school children succeed. Also examined as a component of the award application were three years of specific data: state test scores, student suspension rates, student attendance, school improvement plans, professional development activities, as well as the type of professional degrees and certification areas held by staff members.

The participating middle school was located in a small, suburban district approximately 70 miles north of New York City. The entire district served approximately 3,200 students in five separate school buildings. The middle school housed approximately 700 students in grades 6 through 8, children whose ages ranged from 10 to 14 years. While over 200 teachers worked in the entire district, the middle school included approximately 60 instructional staff members.

In the middle school, as reported on their most recently published State of Connecticut Strategic School Profile (2009) featuring data from the 2008-2009 school year, 13.3% of the students were eligible for free or reduced priced meals, 3.3 % were not fluent

English speakers, 10.9% were identified as students with a disability, and 6.9% were identified as gifted and talented. The Profile noted that average class size was 20.5 students.

With regard to student race or ethnicity, the State of Connecticut Strategic School Profile (2009) stated that the middle school student population was composed of the following: 80.5% white, 11.8% Hispanic, 1.7% black, 5.8% Asian American, and 0.3% American Indian. Attendance at the school was consistently high; 95.9% of the student body were present on an average day. Disciplinary offenses were infrequent and not serious in nature. Of the 141 incidences reported for that same school year, only one involved a weapon; 11 were thefts. The remaining infractions were minor physical or verbal confrontations, school policy violations, and the like. The most recent publically reported Connecticut State Mastery Test results are recorded in Table 1.

Table 1

Percent Scoring Proficient on the Connecticut Mastery Test in March 2010

Grade	Mathematics	Reading	Writing	Science*
Sixth	95.4	94.6	93.3	
Seventh	96.7	90.5	89.0	
Eighth	95.8	91.2	88.7	88.2

*The science CMT is only administered to eighth grade students.

Participants

There were two interdisciplinary teacher teams per grade level. Teams were comprised of core subject area teachers (English Language Arts [ELA], mathematics, science, social studies), as well as a special education teacher assigned to that team. Foreign language teachers and special area teachers (fine and practical arts, as well as physical education) were not assigned to teams. Teams had CPT two to three times per week.

Participants included one principal, two assistant principals, and 29 teachers from grades six, seven, and eight (Table 2). All eligible administrators participated in the study; teacher response rate was 81% (29 teachers from a pool of 36). Of the seven teachers who choose not to participate, reasons were given such as scheduling conflicts and other time constraints. The 29 teacher participants were members of six different teacher teams from three separate grade levels, core subject and special education teachers formally assigned to these specific grade-level teams with CPT. All middle school teachers fitting this description were given an open-ended survey and invited to participate in a focus group with their team. All middle school administrators— the principal and assistant principals— were also invited to take part in individual interviews.

Table 2

The Frequency of Requested and Actual Participation for Each Data Collection Method

Unit	Method of Collection	Requests to Participate	Actual Participation Gr. 6	Gr. 7	Gr. 8	Total
Teacher	Open-ended Survey	36	7	8	6	21
Teacher	Demographic Survey	36	11	9	9	29
Teacher	Individual Interview	12	3	2	4	9
Team	Focus Group	6	2	2	2	6
Administrator	Individual Interview	3	*	*	*	3

*Administrators work with all three grade levels.

Teacher participants. There were 29 teacher participants, members of six separate teams spread over three different grade levels. See Table 3 (next page) for specific demographic information pertaining to team composition. Teachers were from the following content areas: mathematics, ELA, science, social studies, and special education. The amount

of classroom experience ranged from 2 to 32 years. Other demographic data appears on Table 4 (pg. 93) that pertains to: participant age, prior grade levels taught, ethnicity, number of years teaching a specific grade level, number of years on a specific team, and other subject areas taught previously.

Table 3

Participating Teacher Demographic Information

Team	Subject Area	Number of Staff Members	Years Teaching	Female	Male
6-1	ELA	2	12, 13	2	0
	Science	1	28	1	0
	Mathematics	1*	13	1	0
	Social Studies	0			
	Special Education	1	24	0	1
6-2	ELA	2	2, 25	1	1
	Science	1	15	0	1
	Mathematics	1	17	1	0
	Social Studies	1	5	1	0
	Special Education	1	19	1	0
7-1	ELA	2	2, 7	2	0
	Science	1	10	0	1
	Mathematics	2	23	1	0
	Social Studies	1	32	0	1
	Special Education	0			

Table 3 (continued)

Participating Teacher Demographic Information

Team	Subject Area	Number of Staff Members	Years Teaching	Female	Male
7-2	ELA	2	4, 6	1	1
	Science	0			
	Mathematics	0			
	Social Studies	1	6	0	1
	Special Education	1	13	1	0
8-1	ELA	2	6, 22	2	0
	Science	1	8	1	0
	Mathematics	1	8	1	0
	Social Studies	1	23	0	1
	Special Education	0			
8-2	ELA	1	15	1	0
	Science	0			
	Mathematics	1	2	1	0
	Social Studies	1	11	1	0
	Special Education	1	25	1	0
Totals	ELA	11	2-25	9	2
	Science	4	8-28	2	2
	Mathematics	5	2-23	5	0
	Social Studies	5	5-32	2	3
	Special Education	4	13-25	3	1

*One teacher, a full member of a 6th grade team, also teaches 7th grade math.

Table 4

*Other Demographic Information Reported by Participants**

Participant Age in Years	Years at Grade Level	Years on Team	Have Taught Other Grades	Have Taught Other Subjects	Ethnicity
24-66	1-20	1-20	19 teachers	11 teachers	24 white 2 Hispanic 1 Asian

*Not all surveys were completed in entirety; some questions were left unanswered.

Administrator participants. The building principal and two assistant principals were individually interviewed. The building principal had held that role for the past five years. Prior to that, for a total of six years, he had been an assistant principal, and then principal, at a private grammar school located in an urban setting. Before moving into administration he had been a classroom teacher of grades two through seven, for approximately five years.

One assistant principal had been a high school level classroom teacher for 33 years prior to accepting the position as middle school assistant principal. She had held that administrative position for five years. The other assistant principal had been a teacher in a private school for two years, and then taught in the current district for 10 years. He moved into the administrative position of assistant principal five years ago. He had some previous administrative experience as a K-12 curriculum coordinator/department chair. It is of note that all three administrators were hired at different points during the same school year (due to the retirements and promotions of the people holding those positions previously).

Description of Research Design

A multiple case study, qualitative research design was utilized. As described by Creswell (2007), a case study is used "to understand an issue or problem using the case as a specific illustration" (p. 73). Developing a case study is both a research methodology, as well as a product of said endeavor (Creswell, 2007). The researcher creates an in-depth

description of the phenomenon being studied by spending an extended amount of time in the field gathering multiple forms of data. Another common aspect of the multiple case study methodology is the identification and development of common themes both within and across cases. As Creswell (2007) noted, "Often the inquirer purposely selects multiple cases to show different perspectives on the issue" (p. 74). Through the use of multiple cases a richer portrait can be drawn.

For this study the unit of measurement was individual teachers as distinct cases, as well as using the team itself as a case. A qualitative design such as the examination of specific cases was the best means of moving beyond the shallow descriptions of characteristics and attributes identified by earlier research that used normed instruments and tallies to clinically measure such constructs as teacher and student efficacy, school and workplace climate, instructional techniques, and more (McEwin & Greene, 2010). By allowing individual participants the opportunity to respond via surveys, focus groups, and interviews, a deeper source of data was uncovered that created a more robust portrait of interdisciplinary teacher teams using CPT at a highly-effective middle school. Such methodology allowed participants to give specific examples of topics and concepts; there were opportunities to tell stories and illustrate personal points-of-view. Stake (2005) noted that by examining specific cases, a researcher is able to take into account the context in which the phenomenon occurs, a context that may greatly influence what is being examined. "The case to be studied is a complex entity located . . . in a number of contexts. . . cultural and physical. . . . social, economic, political, ethical, and aesthetic" (Stake, 2005, p. 449).

For the particular focus of this study the researcher purposively chose teams from a highly effective middle school, as identified by outside experts using multiple criteria and

methodologies, including a multiple day site visit (NELMS, 2010). In an effort to illustrate most clearly the construct being studied, Creswell (2007) recommended *purposeful maximal sampling* when he advised researchers to "select cases that show different perspectives on the problem, process, or event" (p. 75). Accordingly, teams from at least three different grade levels were studied; interview participants possessed the widest range of team experience possible (longest serving and newest members). When using multiple case studies, Bogden and Biklen (2007) also supported this method of choosing participants "on the basis of the extent and presence or absence of some particular characteristic" (p. 70). Due to the nature of qualitative work in general, deliberately allowing for the emergence or discovery of new data and themes, the researcher chose teachers and teams from multiple grade levels with disparate amounts of experience. Stake (2005) observed that individual cases "may be similar or dissimilar . . . redundancy and variety [within or between the cases are] each important. They are chosen because it is believed that understanding them will lead to better understanding . . . about a still larger collection of cases" (p. 446).

The use of multiple forms of data collection— surveys, focus groups, individual interviews, and artifacts— was also specifically chosen to gather the widest and deepest data possible. Crabtree et al. (1993) noted that "The special characteristics unique to each [method] makes it necessary to decide whether a particular project is best addressed using one method, the other, or perhaps both" (p. 149). It is important to make sure method(s) fit research questions and project goals (Crabtree et al., 1993). In this instance, due to the primacy of the construct of teams, open-ended surveys provided initial background information; focus groups afforded the opportunity to witness a team's unique chemistry; while individual interviews offered the occasion to pursue individual topics and utterances in

more depth. As Corbin and Strauss (2008) observed, "One of the virtues of qualitative research is that there are many alternative sources of data" (p. 27). Diverse sources yield different, indispensable information (Strauss, 1988).

Instrumentation

Data were collected via open-ended surveys, focus groups held with each team, and individual interviews conducted with building administrators and selected teachers. Documents and artifacts were collected throughout the process in order to provide context, support observations, and supply examples. All survey, focus group, and interview questions were written by the primary researcher. These data provided information about attitudes and beliefs regarding team members' inter-related work habits and styles, as well as those pertaining to middle school students, school structure and organization, curriculum, the role of administration and parents, the concept of teaming, and instructional methods. As the study proceeded, each step informed the next. As Barbour (1998) noted, "This is in keeping with a view of research as an iterative process rather than a linear process" (p. 356). The researcher reflected upon and analyzed data as the collection proceeded.

Surveys

Open-ended Survey. Surveys were distributed to all team teachers in order to obtain initial data pertaining to the school, their philosophies, and other topics related to the research questions.

Instrument Description and Development. Creswell (2005) recommended the use of surveys to gather a variety of data to reveal "individual opinions. . . . [to] help identify important beliefs and attitudes" (p. 354). He recommended the use of open-ended prompts because the "question does not constrain the individual response. It is ideal when the

researcher . . . wants to explore the options" (Creswell, 2005, p. 364). The open-ended survey used in this study elicited the first layer of data gathered from participating teachers.

Crafting the open-ended survey questions was a thoughtful process informed by pilot studies (Creswell, 2005; Singleton & Straits, 2001) conducted by the researcher one year prior at a similar, highly effective middle school. Questions and their order were also shaped by specific feedback obtained from the researcher's primary advisor and committee members. Efforts were made to ensure questions were truly open-ended and unbiased.

Open-ended survey questions were purposely constructed to be broad, incomplete prompts that allowed individual respondents the freedom to reply at length. The survey was three pages in length; three questions per page with space left underneath each one for answers. It was estimated that completing the nine question survey would take approximately 10 minutes. The first several questions asked teachers to describe: a typical middle school student, why they decided to teach this age level, their concept of teaming, and to describe their relationship with their team. The next cluster of questions dealt with effective instructional methods and ways in which teachers encouraged students to think critically and creatively. The final set of questions probed the role of administration and parents in a middle school. The survey data provided a broad overview of each teacher's ideas, impressions, and philosophies pertaining to multiple facets of his or her job.

Procedures for Instrument Implementation. Open-ended surveys were given to all of the teachers on the six separate grade-teams with CPT in order to gather the widest possible array of responses (Appendix B). Responses could be handwritten on a hardcopy of the open-ended survey, or typed onto an electronic version. This dual method of response was chosen to increase both the quantity and quality of returned surveys, as well as for the

enhanced convenience of the respondents (Mann & Stewart, 2001). In research conducted by Schaefer and Dilman (1998), a mixed-mode of data gathering via surveys (paper and electronic methods) resulted in a 5.3% higher rate of return than only distributing paper copies. More importantly, researchers noted that "the e-mail version obtained more complete returned questionnaires" (p. 388), as well as the fact that "the e-mail version achieved much longer responses to open-ended questions than the paper version" (p. 389). In Schaefer and Dilman's (1998) research, the e-mailed versions of the survey were also returned significantly more quickly ($t = -5.718$, $p < .0001$). While only one participant in this researcher's current study chose to use the electronic method of completing the open-ended survey, those digital responses were much longer and more detailed than those provided in handwriting on hardcopies by the other teachers.

Creswell (2005) recommended the use of surveys as a method of data gathering that is expedient, economical, and convenient for both the researcher and respondent. By distributing open-ended surveys to participating teachers following a brief informational overview (provided as part of a staff meeting), this researcher was able to quickly initiate data collection while concurrently beginning informal observations at the site as a means of building trust and gathering artifacts.

Creswell (2005) cautioned that the use of surveys to gather initial data can be problematic because "individuals may lack any personal investment in the study and decide not to return the instrument. Also, because the researcher does not have a means for explaining questions, participants may misinterpret items" (p. 361). As a way of addressing this concern, the researcher met with all participating teachers before the open-ended surveys were distributed in order to personally describe the study and survey itself. Instead of

anonymously mailing the instrument or leaving it in teacher mailboxes at the school, the researcher hand-delivered each one directly following this initial meeting, as well as provided an electronic copy (delivered via their individual, school-based e-mail addresses).

All open-ended surveys were accompanied by a small token of appreciation, in the form of a five dollar gift card to a national bookstore chain. Singleton and Straits (2001) noted that such rewards demonstrated respect for the time and data provided by respondents, as well as led to increased response rates. It was also a good initial incentive considering what these researchers noted as the "further drawback that a text survey can appear dry and uninteresting" (p. 610). A book store gift card was specifically chosen to allow recipients to purchase items for personal use, or perhaps for their classrooms. It was also felt that if desired, teacher teams could combine cards for joint team use.

While conducting focus groups and individual interviews, the researcher continued to personally provide replacement open-ended surveys to those who had not yet completed one, and was available to answer questions as a means of providing further reassurance regarding confidentially. As a final encouragement, after having met with the majority of participants a number of times while conducting focus groups and interviews, additional paper copies were left in the teachers' school mailboxes (located in the faculty lounge) during the last week of classes in June (if a participant had still not returned the open-ended survey to the researcher). Overall, there was a 58% (21 participants from a pool of 36) rate of return with regard to open-ended surveys.

Upon receipt by the researcher, open-ended survey responses were typed into an Excel spreadsheet and preliminary coding was completed. In addition to gathering data addressing the research questions specific to this study, responses to the open-ended survey

were also utilized to help refine the final list of questions used with teacher focus groups and individual interviews. Crabtree et al., (1993) recommended that researchers "Use the results of a survey to assist . . . in better defining the topical areas for focus groups" (p. 139). As befitting this type of research, each step informed the next, allowing the qualitative methods to adapt to the emergent design and data itself (Creswell, 2007; Lincoln & Guba, 1985).

Demographic Survey. Brief surveys were distributed to all potential participants.

Instrument Description and Development. A brief demographic survey (Appendix C) was created in order to collect a range of generalized data pertaining to the individual research participants. This information was later used to create profiles of individual teachers, as well as the teams. Demographic survey questions were all concrete in nature, and dealt with specific descriptive characteristics such as gender, number of years in education, subject area(s) taught, and so forth.

Procedures for Instrument Implementation. The survey, only one page in length, was distributed prior to the commencement of each focus group. It took approximately five minutes to complete, and was handed back immediately to the researcher. This information was used to add depth to, and assist in the analysis of, other collected data.

Focus Groups

Description and Development of Focus Group Questions. Individual, grade-level teams participated in focus groups led by the primary researcher. Questions that guided these sessions can be found in Appendix D. The choice of using a focus group methodology reflects this researcher's desire to more deeply investigate the beliefs and attitudes of entire teams of teachers. As noted by Morgan and Krueger (1993), "By comparing the different points of view that participants exchange during the interactions in focus groups, researchers

can examine motivation with a degree of complexity that is not typically available with other methods" (p. 16). Because the team itself, as well as the construct of teaming in general, were central to the research questions guiding this study, the opportunity to probe the beliefs and attitudes of the group members en mass was invaluable. Morgan and Krueger (1993) also noted that focus groups assist participants "become more explicit about their own views" (p. 17) as they listen to the ideas expressed by others in the group; "the interaction in focus groups often creates a cuing phenomenon that has the potential for extracting more information than other methods" (p. 17). Thoughts are often sparked upon hearing a peer articulate a similar view, or previously unrecognized idea.

A semi-structured approach to crafting the questions, as well as guiding the interview itself, was used in order to take advantage of the inherent flexibility and open nature of focus groups (Fontana & Frey, 2005; Morgan, 2001). Preliminary sample questions were devised by the researcher and piloted with two separate grade level teams (with CPT) at a different school one year earlier, a middle school judged as highly effective using the same criteria as previously described in this document. Based on analysis of these initial data, used in conjunction with feedback received from the researcher's dissertation committee members, a final list of questions was generated.

Preliminary questions prompted the teachers to describe currently existing structures and routines. Questions included the following: (a) How do you organize and deliver lessons? (b) What activities take place during CPT? (c) How do you communicate with each other, parents, administration? (d) How would you describe professional development in this district? Later questions asked teachers to imagine changes they wished to make at the school, concrete or abstract. Consciously, the intent was that initial focus group questions

addressed the respondent's opinions and ideas about specific procedures and constructs presently existing at the school, while later prompts reflected their dreams and wishes. In an effort to uncover their personal attitudes and beliefs, teachers were asked to describe the ideal middle school in terms of curriculum, physical plant, teaching techniques, and administrative support.

Questions for the focus group were purposely structured to be open-ended and unbiased. Morgan (2001) observed that "the first question not only gets the discussion flowing but opens up a number of other topics that the participants will be eager to explore" (p. 149). Distinct care was also taken to use data from the open-ended surveys to shape the finalized question list for use with the focus groups. Certain topics and themes had emerged that warranted further exploration. These were inserted as new questions, or as extended prompts added to existing ones. For example, questions pertaining to specific types of parent communication, tangible examples of administrative support, and the impact of technology, were all later added. The final list contained 19 potential questions the researcher could use.

Procedures for Focus Group Implementation. Focus groups occurred during the school day, taking place during a regularly scheduled CPT meeting. During this 40-minute block of time (the school day was divided into eight similar blocks, in addition to a separate lunch period); other team business sometimes took precedence, depending upon individual team matters that arose. Ironically, this is one of the strengths of CPT: teams can immediately deal with any pressing concern in a united and efficient manner due to the regularly-scheduled meeting periods. Unfortunately, with regard to this research study, addressing other urgent matters often cut into the previously-arranged focus group time. Flexibility was required on the part of the researcher; there was one team the researcher had

to meet with on three separate occasions before the team was able to dedicate enough time to satisfactorily address the focus group questions.

As recommended by Fuller, Edwards, Vorakitphokatorn, and Sermsri (1993), the researcher should be "free to vary the order and wording of the questions" (p. 96) in order to generate a more authentic discussion among participants. These experts also suggested the use of follow-up questions to maintain conversational flow (Fuller et al., 1993). Such techniques were useful with teacher teams that were more reticent, or simply less forthcoming. It also helped to switch lines of inquiry when a particular question did not prompt much discussion among the group.

Following completion of the sixth and final focus group, all responses were examined for the purposes of preliminary coding as a means of assisting with the creation of the finalized list of questions to be used in the individual teacher and administrator interviews.

Interviews

Teacher Interviews. Individual interviews were conducted with select teachers.

Description and Development of Individual Teacher Interview Questions. Individual interviews have a long-established history in educational research (Tierney & Dilley, 2001). As these researchers noted, it is a respected means of obtaining data with a unique "depth of understanding" (p. 454) that is difficult to gather, or simply absent from, information obtained via other methods. This specific methodology was chosen in an attempt to more deeply probe the beliefs and attitudes of individual participants. As Warren (2001) noted, "The purpose of most qualitative interviewing is to derive interpretations, not facts or laws" (p. 83). Face-to-face interviews allowed the researcher to pursue ideas and threads introduced by the participants in the open-ended surveys and focus group

conversations. As Lincoln and Guba (1985) observed, interviews are the perfect "mode of choice when the interviewer *knows what he or she does not know* [emphasis original] and can therefore frame appropriate questions to find it out" (p. 269).

Teacher interview questions can be found in Appendix E. Similar to the focus group, introductory questions prompted the teacher to describe currently existing structures and ideas. The next several prompts asked the participant to articulate his or her hopes and dreams: what were his or her long term goals, what he or she would like to change at the school, and so forth. When asked for clarification, the researcher simply answered that the teacher could address these questions from a personal or team-oriented view, concretely or abstractly.

The final list of interview questions was created after preliminary coding of both the open-ended survey and focus group data. Similar to the focus group prompts, question order and exact wording was often adapted to the responses of the individual participant during the interview itself. The use of back-up questions was helpful if conversation did not easily flow or the interviewee seemed uncomfortable (Corbin & Strauss, 2008). For example, if a line of questioning pertaining to descriptions of students did not elicit much information, the researcher was easily able to pursue a new line of inquiry such as pertained to curriculum planning or typical team interactions. Generalized prompts such as "Could you please expand upon that answer?" or "Could you give me an example of . . . ?" were also helpful in maintaining conversational flow. A digital voice recorder and digital recording pen were used to assist in data management and subsequent analysis.

Procedures for Individual Teacher Interview Implementation. Semi-structured interviews were conducted with individual teachers chosen from among the members of all

six teams with CPT. Personal invitations were issued via e-mail to teachers who had been team members the longest, as well as individuals who were newest to each team. This was purposely done to gather the widest range of team experience possible. With 36 teachers to choose from, an unbiased method was needed in order to narrow the pool. After other follow-up e-mails and in-person invitations, a total of nine teachers were interviewed. Three teams had two participating teachers, three teams had only one. The length of the interviews averaged 20 to 40 minutes, depending upon the individual teacher and other needs that arose during the scheduled appointment time. Times were scheduled at the convenience of each participant. Interviews took place before the school day began, during a teacher's preparation period, or after the school day ended.

All interviews were conducted in individual classrooms or offices in an effort to provide the quiet and privacy necessary to preserve confidentiality. As Warren (2001) noted, arranging "the interview and actually making it happen are two different things. Generations of qualitative interviewers have been admonished to schedule interviews at times and in places convenient to respondents, but they may find that even this is problematic" (p. 90). Some participants did cancel interview appointments with little notice. Unlike the difficulty this researcher had scheduling and executing focus groups, by this point in the data collection process enough trust had been developed so that participants themselves initiated rescheduling, volunteered to make appointments for times previously categorized as inconvenient, or offered to personally ask another team member to replace them for a duty so the interview could take place.

Although participants had previously returned consent forms, each interview began with explicit statements made by the researcher regarding the purpose of the session, an

expression of appreciation regarding the time being given by the participant, a reminder pertaining to the presence of digital voice recorder and its purpose, as well as a general explanation pertaining to the research study itself. Spradley (1979) recommended beginning each interview by providing such information in order to maintain high ethical standards and build further trust.

The researcher chose from among 14 different interview questions. Question order was determined by length and type of response provided by the participant. Initially, the interviewer asked questions that prompted the teacher to describe his or her educational background and experiences. It was hoped that these were simple, stress-free questions to answer, as well as helped provided further background information pertaining to the individual participant. The next cluster of questions asked the respondent to describe a typical middle school student, the teacher's best means of creating and delivering effective curriculum, team communication methods and CPT activities, professional development, uses of technology, and to share something that they have accomplished at the school of which they were especially proud. This last question was purposely constructed to show what the teacher valued, both professionally and personally.

Administrator Interviews. Interviews were conducted with all administrators.

Description and Development of Individual Administrator Interview Questions. Individual interviews were also conducted with all building administrators. The 16 interview questions can be found in Appendix F. Similar to the teacher interviews, initial prompts addressed the educational background and professional experiences of the interviewee. The next several questions explored his or her personal beliefs and attitudes pertaining to middle schools, effective curriculum and instruction, student characteristics and behaviors,

professional development, and so forth. The administrator was also asked to describe typical interactions with teacher teams and parents. Lastly, administrators were asked about future goals and plans for the middle school.

Procedures for Individual Administrator Interview Implementation. Interview times were scheduled at the convenience of the participants; all meetings occurred in the early morning before school began, or directly after the first class period had started. Length of the interviews ranged from 20 minutes to 40 minutes. All interviews occurred in privacy of the participant's office.

Data Collection Tools

Focus group and interview audio data were recorded digitally; audio files were later transcribed (Poland, 2001). A digital voice recorder was used, as well as a digital recording pen. Experts recommended the use of such equipment to best preserve conversations, check against field notes, as well as facilitate coding (Bogdan & Biklen, 2007; Spradley, 1979). Data were sent in digital audio format to a professional transcription company.

As Spradley (1979) observed, "Even while tape recording, it is good to write down phrases and words" (p. 75). The digital pen recorded audio data while the researcher concurrently took notes using it on specialized paper. At a later time, when the pen was touched to a specific location on this specialized notepaper, the exact audio file corresponding to that precise notation immediately began to play. Data were also uploaded onto a computer. A digital visual copy of the notes appeared on the computer screen, an exact replica of the specialized notepaper. When the cursor was clicked on a particular location on this computer image of the notepaper, the audio file corresponding to that exact notation began to play. This device was used as a means of more efficiently and

instantaneously accessing specific audio data, as well as lessened the need for excessively detailed note-taking during focus groups and interviews sessions. Using the digital recording pen enabled this researcher to pay closer attention to participants' body language, voice pace and pitch, as well as group dynamics.

Documents and Artifacts

Throughout the study, artifacts and documents were gathered and examined by the primary researcher. These items were used to provide context to the data being gathered via the open-ended surveys, focus groups, and interviews. Bogden and Biklen (2007) recommended the use of such items to provide "supplemental information as part of a case study whose main data source is participant observation or interviewing" (p. 64). The researcher often became aware of a particular document of interest during the collection of data, and later requested access to that item from a teacher or administrator. For example, when a specific interdisciplinary assignment was mentioned during a focus group, the research later procured a sample student assignment sheet and the rubric used to assess the final projects. Such items provided further information in support of themes identified by later data analysis.

Examples of artifacts gathered included: a variety of memos generated by the teams and administrators, assorted curriculum materials, district publications (newsletters, fundraising materials, press releases, award descriptions, state testing reports), meeting agendas, "good news" post cards, staff development materials, teacher of the year applications, teacher web pages (featuring homework assignments, field trip photos, work expectations, and classroom rules), interdisciplinary project student handouts (including rubrics, parent letters, timelines, essential questions, worksheets, resource guides, reference

format, and more), a team's monthly calendar (including project due dates, CPT topics, scheduling changes, and assembly dates), PBIS materials, student behavior plans, student reflection and goal setting sheets, and writing rubrics. Scanned copies of some have been inserted into Chapter Four as Figures, where relevant, in order to better illustrate some themes and findings.

Data Collection Procedures and Timeline

The following section provides a general chronological overview of the data collection. The process began initially with site selection and IRB application in the fall, and ended nine months later, during the final week of school in June, with the completion of administrator interviews. Minor difficulties were encountered. For example, extremely severe winter weather canceled many previously scheduled meetings and observations; state mandated testing and preparation necessitated interruptions to the data collection; and there existed the anticipated challenge of scheduling meetings at the convenience of busy teachers during typical, hectic school days.

The following outline documents the stages of this study:

1. October and November 2010- contacted building principal
2. December 2010- received study approval by Institutional Review Board of University
3. December 2010- met with building principal; obtained signed consent form (Appendix H)
4. January 2011- distributed cover letters, executive summaries, and consent forms to district superintendent, associate superintendent, and two middle school assistant principals (Appendixes I, J, & K)

5. February 2011- met with assistant principals; obtained signed consent forms
6. February 2011- made brief presentation to entire teaching staff; distributed materials to potential participants
7. February 2011- e-mailed additional copies of open-ended surveys to teachers
8. February 2011- created databases to track participation and data from both surveys
9. February 2011- observed CPT meetings to build trust with participants
10. February to April 2011- entered data from open-ended surveys onto spreadsheet; conducted preliminary coding; finalized focus group and interview questions
11. May 2011- conducted focus groups; distributed demographic surveys, as well as open-ended surveys to teachers who had not yet returned completed copies
12. June 2011- conducted individual interviews with teachers and principals
13. June 2011- continued to distribute open-ended surveys
14. February through June 2011- generated field notes and memos
15. January through June 2011- collected and analyzed documents and artifacts
16. May and June 2011- transcribed data

The first step to commencing this research study involved contacting the building principal to ensure that the site was interested in participating. Initial contact was made via e-mail, followed by phone messages. The e-mail communication also included a copy of the executive summary of the project (Appendix G). Next, a meeting was scheduled with the principal in order to personally describe the project in more detail, as well as the extent of teacher involvement being requested. As recommended by Bogdan and Biklen (2007), what

they term a *cooperative style* was used to gain access to the chosen site and subjects. These experts noted that if you "make your interests known and seek the cooperation of those you will study . . . if permission is well negotiated, doing research openly. . . . gives you greater access to the range of people in the setting" (p. 84). This mindset was purposely maintained throughout the study in order to build trust and gather data when interacting with both teachers and administrators.

After having received the building principal's initial consent, as well as approval from the University's IRB, cover letters, executive summaries, and consent forms were sent to various administrators including the district superintendent, associate superintendent, and both middle school assistant principals via traditional mail (hardcopies) and e-mail (Christians, 2005). Within four days both district-level administrators gave consent electronically, and returned signed hardcopies of the forms as well. A meeting was then held with both assistant principals in order to better describe the research project at length.

In order to personally introduce the study to the teachers, a brief oral presentation was delivered to the entire staff during their regularly scheduled, after-school, monthly faculty meeting. The presentation was part of the formal printed meeting agenda, innately bestowing legitimacy upon the endeavor. Such a presentation was the best way to provide full-disclosure pertaining to the aims and purpose of the study, and allowed participants to make an informed decision regarding their involvement (Christians, 2005). At the end of the faculty meeting, the researcher requested that all team teachers meet with her informally, at the side of the room, in order to obtain hard copies of the cover letter, executive summary, consent form, open-ended survey, and book store gift card. Any individual questions were answered at that time. Next the researcher e-mailed all potential participants a digital copy of

the open-ended survey as an attachment, as well as pasted the questions in the body of the e-mail message. This e-mail also included an expression of gratitude for the teachers' attention during the faculty meeting presentation and expressed thanks for their future cooperation in the study.

In late February, five CPT meetings were observed by the researcher in order to build rapport with the teams and individual members. As Bogdan and Biklen (2007) noted, obtaining consent forms and official permission is only the first step in beginning to gain the trust needed to gather authentic data from participants. "Getting permission to conduct the study involves. . . . laying the groundwork for good rapport with those with whom you will be spending time, so they will accept you and what you are doing" (Bogdan & Biklen, 2007, p. 85). Spending time in team meetings without an audio recording device or official research-related tasks allowed the researcher to informally become further acquainted the teams and their work, and vice versa.

Focus groups and individual interviews were purposely scheduled after the completion of mandated state tests (March) and spring break (late April) in order to promote continuity of the data collection and ease scheduling. Bogdan and Biklen (2007) stressed the importance of not being disruptive or a burden to the typical work being done in a school. They advised that the researcher should make sure that their presence will not "interfere with [the teachers'] routines and work. . . . it is important in this kind of research to be unobtrusive and noninterfering with what people normally do. Part of being successful is being nondisruptive" (p. 87).

Throughout the month of May focus groups were held with all teams. Scheduling became easier as contact increased between the researcher and teams. When an e-mail was

initially sent to schedule focus group sessions, only 1 teacher out of 36 responded. One month later, while scheduling individual teacher interviews, the response rate increased to 42%, and later 81%, following additional e-mail inquiries. Singleton and Straits (2001) observed that the use of additional persuasive written prompts was helpful when trying to increase response rates and participation, as well as the fact that "the interaction between interviewer and respondent appears to play a large part in the decision to cooperate" (p. 68). By this point in the study, the researcher had conducted all six focus groups and visited the site multiple times, having much contact with the teachers in the process.

The length of the focus group meetings varied due to other pertinent team business that arose. Some teams were able to meet at the appointed time and dedicate an entire 40-minute period to the focus group discussion. Other teams spent some time at the beginning of the meeting dealing with more pressing concerns prior to answering the focus group questions. Some of these team business items were discussions pertaining to specific scheduling issues, field trips, individual student concerns, relay of information from school committees pertaining to specific district initiatives, administrative visits, and so forth. This researcher heeded the advice of Bogdan and Biklen (2007) pertaining to flexibility extended by a researcher. "Assure them that you will not be making excessive demands and that you will be sensitive to their problems and requirements. Share with them your intention of fitting your schedule around theirs" (p. 87). As an additional benefit, observing the ways in which the teams conducted such business provided further context to the data being collected.

Individual teacher and administrator interviews were scheduled in June, again at the convenience of the participants. As before, interview lengths varied due to schedule

constraints, interruptions, and other unanticipated school business. Each interview was confirmed via e-mail prior to the meeting occurrence. Individual thank you notes were sent via e-mail after the completion of each interview to reiterate the researcher's appreciation for the time and candor extended by participants.

During each focus group an informal map of the room was created in the digital recording pen notebook documenting where participants were seated. This allowed the researcher to refer to each respondent by location number when recording notes, increasing the efficiency of data analysis and interpretation. This was extremely helpful due to the size of the groups; the number of participants ranged from five to six members, in addition to the researcher.

In order to best preserve all data, back-up files of all information were maintained on the researcher's personal computer hard drive, as well as two separate cloud-based internet storage systems. Following the completion of a focus group or interview, audio files were digitally sent to a professional transcription service. Charges for this service were based upon length of an interview, number of participants, quality of the recording, specificity of the requested transcription, as well as the speed in which data were returned. Transcription of the audio data aided in the efficiency of the analysis (Poland, 2001).

A spreadsheet database was created to track each participant and his or her level of involvement with the research study. All participants were assigned a unique number to preserve privacy (Christians, 2005). When using any data, only participant numbers were attached to corresponding information in an effort to preserve the confidentiality of all responses. This database was also used to track participant completion of the following: consent forms, demographic surveys, open-ended surveys, as well as participation in focus

groups and individual interviews. An additional spreadsheet was generated to record all responses from the demographic surveys.

Data Analysis

A qualitative design was employed utilizing inductive methodology to address the research questions stated earlier (Corbin & Strauss, 2008). As these authors noted, "the primary purpose of doing qualitative research is discovery, not hypothesis testing" (p. 317). Interview and focus group data were transcribed; using these data, along with the open-ended surveys, descriptive codes were created (Bogden & Biklen, 2007). Based on these codes, emerging themes were identified. As observed by Corbin and Strauss, "Analysts should begin coding soon after the first interview . . . the first data serve as a foundation for further data collection and analysis" (p. 163). This instruction was followed, beginning with data gathered from the open-ended surveys. These authors also recommended, "Open coding . . . in the beginning, analysts want to open up the data to all the potential and possibilities contained within them" (p. 160).

It is important to note that coding was not simply a reading of data and paraphrasing of participants' statements (Corbin & Strauss, 2008). Coding involved "interacting with the data . . . asking questions about the data, making comparisons between data" (p. 66). These experts observed that when coding, a researcher is using specific thinking strategies—"useful techniques for making sense out of data" (p. 66).

Computer technology, via the use of HyperResearch software (Fourth World Media Corporation, 2011), version 3.0.2, was later used to assist in these efforts as themes were identified and connections made between different data sources. As codes were entered into the electronic code book, corresponding passages in the text were highlighted. In an effort to

underscore the truth value of the findings computer coding was conducted without consulting the hand-coded paper transcripts. After completion, computer codes were compared with hand codes in order to eliminate redundant codes, re-title those that pertained to the same idea or construct, and to support the thematic findings in general. For both processes, hand and computer-assisted coding, the researcher identified codes as they emerged following a close reading of the participants' responses. The researcher did not have a list of pre-determined codes for which she was searching within the text to find.

There was much overlapping between and within codes; many passages were associated with more than one code. For a full list of codes and corresponding definitions see Appendix M. The computer program's capacity to search by specific code name, both within and between cases, was invaluable with regard to the researcher's ability to make connections between cases and identify larger themes.

It was essential that data were gathered from different sources and by different means and methods (Fontana & Frey, 2005; Stake, 2005). Referred to as triangulation, this term pertains to the idea of collecting information from multiple sources or subjects, theoretical approaches, or utilizing multiple techniques (Bogden & Biklen, 2007). As a means of verifying information, it is also seen by researchers as a way "to achieve broader and often better results" (Fontana & Frey, 2005, p. 722). This researcher collected data from multiple participants (individual team members), multiple staff members (building principals and teachers), in multiple forms (written text from open-ended surveys, documents, and artifacts), as well as multiple oral response formats (focus groups and individual interviews). As Fine and Weis (1996) noted, "Methods are not passive strategies. They differentially produce, reveal, and enable the display of different kinds of identities . . . we see and hear a cacophony

of voices filled with spirit, possibility, and a sense of vitality absent in the individual data (p. 267-268).

As qualitative research has progressed, triangulation has grown from a positivist method of validating one truth, to a means of showing the depth and range of perspectives pertaining to a certain concept or event (Fine, Weis, Weseen, & Wong, 2000). It is a way of embracing and illuminating the complexity inherent in data gathered from real life. Blaise (2005) recognized that via the triangulation of sources, methods, and analysis other perspectives were allowed to emerge. She noted that, "Triangulation was not used to produce a set of consistent or totally clear results. Instead, it was employed to seek different or multiple interpretations, while also helping me understand when and why different interpretations occurred" (p. 91).

Another analytic technique used was constant comparative analysis (Lincoln & Guba, 1985). As data were examined, especially from different sources or procured using different methods, they were compared to other data. As Corbin and Strauss (2008) noted, "This type of comparison is essential to all analysis because it allows the researcher to differentiate one category/theme from another and to identify properties and dimensions specific to that category/theme" (p. 73).

Lastly, a data audit was conducted "for the purposes of establishing levels of dependability and confirmability" (Lincoln & Guba, 1985, p. 378). A qualified research peer examined raw data, field notes, code lists, and other tools used to conduct this study. The purpose of this exercise was for the auditor to become familiar with the study (including research questions and rationale), acquainted with the researcher's method of record keeping, and "ascertain whether the findings [were] grounded in the data" (Lincoln & Guba, p. 323).

CHAPTER FOUR: ANALYSIS OF DATA

The purpose of this study was to identify and explore the attitudes and beliefs held by members of middle school interdisciplinary teams whose members shared CPT at a highly effective school. Focus groups, open-ended surveys, document analysis, and semi-structured interviews were used to probe more deeply into this phenomenon. Although previous research had quantitatively demonstrated clear relationships between successful middle schools and teams with CPT (Mertens & Flowers, 2003), they had been able to identify influencing factors, but not reveal the deeper interaction between the constructs. Qualitative methodology, therefore, was used to capture and illuminate less easily measured intangibles such as how teachers perceive a variety of intertwined topics such as curriculum and instruction, student work habits, administrative decision-making, parent support, peer assistance, and school structures. The research questions guiding this study were:

1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Chapter Four presents the results of this research and its findings in four sections: (a) description of participants, (b) identification and definition of major themes, (c) in-depth exploration of each theme from the point-of-view of individual teachers, teams, and administrators, (d) a summary and conclusions based on these data. Data were arranged in this sequence to mirror the order in which information was collected: individual information from teachers via open-ended surveys, followed by focus groups, ending with administrator interviews. Additionally, as a multiple case study, cases were defined as individual teachers

and as well as teams. Discussion pertaining to individual themes preserved these case distinctions.

The length of each analysis section within this Chapter corresponds to the volume of data gleaned from each source. Individual teachers provided the largest amount of data via 9 individual interviews and 21 open-ended surveys (see Table 2, p. 89, for frequency of participation per data collection method). The next largest data set was obtained from the six focus groups. Three individual interviews were held with building administrators as further means of triangulation. Additionally, artifacts and documents gathered from participants were also used to support findings.

There was interaction among the data themes across research questions. Data did not fall neatly into particular categories or interpretations; it did not correspond directly to particular questions that were asked. Therefore, data are presented in the form of overlapping themes and subthemes as they naturally occurred. The questions themselves related to attitudes of team members (Research Question 1) and influence on CPT for each team (Research Question 2).

Description of Teams and Individual Participants

Data were collected from individual teachers via open-ended surveys and interviews, and from interdisciplinary teacher teams using focus groups. Additional interviews were conducted with each of the three building administrators. A description of the setting is provided, followed by brief descriptions of each participant, individual teachers first, followed by team teams, and lastly, administrators. These descriptions provide a brief portrait of the person or team, while also presenting general demographic data. Data pertaining to specific information contributed by the individual participants and themes

identified therein will be discussed in a separate section of this Chapter. Pseudonyms were randomly assigned to each individual described or quoted within the Chapter to maintain confidentiality. Often, due to the size of the focus groups and difficulty of transcribing unstructured, overlapping conversations it was not possible to definitively attribute quotations to unique speakers. In these instances speakers are referred to simply as "unknown".

Setting

From the moment the researcher entered the school building, a feeling of warmth and welcome was experienced. A typical day began with an administrator greeting students at the entryway, making personal inquires, or simply smiling. The bright hallways quickly filled with the cheerful sounds of students discussing homework assignments, plans for the coming weekend, or merely sharing a joke. Teachers stood at classroom doorways chatting with one another, calling out reminders to passing students about an upcoming test, or checking on a recent absence.

Overall, the sense of community was palpable. Student work hung upon the walls, as well as recent newspaper articles pertaining to school events and initiatives. Classrooms for each team were geographically located close by one another, allowing both teachers and students to effortlessly engage with each other, for purposes of work or socializing, throughout the school day. Each separate team area was delineated by colorful bulletin boards announcing team names and goals. Even after the final bell had rung for the day the hallways were full of students dashing off to a sporting event, to an after-school club, or to receive individualized assistance from a teacher. Again, a school administrator was visibly

present in the hallways hastening students towards the buses or reminding them about an evening event.

A typical middle school day was arranged into eight separate class periods of 40-minutes each. In addition, students and teachers also had one 30-minute lunch period. Participants taught five periods each day; with at least two to three of these teaching periods directly following one another. This allowed the team to "block" periods together when a particular project or activity required a length of time longer than 40 minutes. For example, when the sixth grade interdisciplinary Amusement Park project was finished, in order to allow students to share their creations with one another and the wider school, two teaching periods at the end of the day were "blocked" together. Students set up their final projects in the cafeteria, giving brief presentations to peers, other teachers, and visitors who stopped in to see the exhibition. All of the teachers on the team strolled around, listening to the presentations and monitoring student behavior.

Each administrator was formally assigned to a grade level. They would attend CPT meeting of both teams on that grade level as often as possible. They handled the majority of discipline concerns for that grade level, and followed the same cohort of students throughout middle school. For example, if the Principal was the primary administrator for the current sixth grade, next year he would follow that class and become the primary administrator for the seventh grade, and so forth. In this way the administrator formed personal relationships with all students in a grade, bonds that formed over the students' three years in the middle school.

Formal team leaders were a newly established position. The administration felt it would be helpful to have a specific person to channel communications through, as well as

hold accountable for particular tasks. Leaders had to apply for the position, and after acceptance, write a list of team goals for the upcoming school year. Leaders generated agendas for each meeting and reported to the administrator assigned to their grade level. Mid-year, leaders met with that administrator to assess progress towards team goals and discussed changes that may be needed to better facilitate progress. Team leaders were a paid a stipend.

Teacher teams had CPT meetings two to three times per week. On the other days when CPT meetings were not held, teachers used that corresponding time period for personal planning. Often, when teams and CPT were first established at a middle school, teachers resented the loss of personal planning time. Common Planning Time had existed at this school for more than 20 years; it was firmly entrenched in the school's culture. No participants voiced any negative views pertaining to CPT.

In previous years the frequency of CPT was lower, and the format not as explicit. This pertained to structures such as formalized discussion topics and written agendas. When the current administration took office, they formalized many structures and initiated new ones such as official team leaders. They purposely attended meetings with great frequency to ensure time was being utilized productively.

On Mondays and Fridays CPT meetings were used to accomplish general team business. This took many different forms. For example, one meeting this researcher observed dealt with a variety of topics of joint interest to the team members. First a sample "reflection sheet" was distributed to the group. This was a rough draft of a form students would use at the end of their science fair project to self-assess and set future goals. Teachers offered ideas pertaining to changes in wording, arrangement of text, or other such

suggestions to improve the form. The next topic of discussion was the use of a shared computer lab for the next two weeks, followed by a brainstorming session regarding how to best use some shared grade-level funds. The group discussed purchasing supplies for an upcoming interdisciplinary project, defraying costs associated with a future field trip, or potential use of the funds for an enrichment activity (bringing a planetarium to the school for a day). The final topic for CPT that day was the scheduling of a grade-wide assessment. Teachers discussed whether it would be better to administer the assessment in the morning or afternoon, and how periods should best be blocked to provide a period of uninterrupted testing time.

On Wednesdays CPT meetings were held in a conference room in the main office for "Hands Up." In attendance were all team members, an administrator, and a guidance counselor. During these "Hands Up" meetings a spreadsheet with the names of all students taught by that team was projected upon the wall. Student names were read aloud and if any teacher had an immediate concern pertaining to a student, it was voiced and discussed. On the spreadsheet these concerns were classified (academic, behavioral, emotional). A teacher would then volunteer to address the concern with immediate action; this was also noted on the spreadsheet. This action could range from asking a student to stay after school to work on a homework assignment, to making a call home to a parent about an issue. On average, one third of a class was discussed during each Wednesday CPT.

When a name was reviewed two weeks later, following the initial noting of a concern, a discussion was held pertaining to the efficacy of the initial action. A group decision would be made whether more serious action needed to be taken to assist the student if the problem had persisted. During these CPT meetings teachers rotated specific roles such as timekeeper,

spreadsheet typist, moderator, and so forth. These Wednesday CPT meetings were strictly student centered and followed this "Hands Up" protocol.

Individual Teachers

The teachers who participated in individual interviews were chosen based upon the amount of time they had been members of a given team. On each team, the newest and longest serving members were invited to meet with the researcher. As a whole, these teachers were gracious with their time, and honest in their responses. Whether it was before or after school, during lunch, or a planning period, the teachers all sacrificed personal time to address the interview questions. Each one warmly welcomed the researcher and repeatedly offered any and all assistance that they could provide.

All interviews took place in the individual teacher's classroom. Each teacher sat physically close to the interviewer, most often at two student desks facing one another. All participants dedicated their full attention to the questions. The nine teachers participating in the individual interviews represented a wide range of the demographic factors surveyed (Table 5). Ages ranged from 25 years to 66 years. Some of these participants had been teaching less than two years, while others had more than 25 years of experience in education. The amount of time on a specific team ranged from one year to 20 years. Three teachers had low levels of experience (2, 6, 6 years), four had a moderate amount (11, 13, 13, 15 years), and two had the most experience (22, 25 years).

Table 5

Demographic Characteristics of Teachers Participating in Individual Interviews

Name	Team	Subject Area	Age	Gender	Years in Education	Years on that Team
Katy	6-1	ELA	36	F	13	1
Tim	6-2	science	37	M	15	6
Kevin	6-2	ELA	50	M	25	3
Kerry	7-2	special education	38	F	13	1
Frank	7-2	social studies	31	M	6	6
Sue	8-1	ELA	29	F	6	1
Michelle	8-1	ELA	66	F	22	20
Sara	8-2	math	25	F	2	2
Bob	8-2	social studies	59	M	11	5

Some participants had experience at other schools; some had taught other grade levels (both in the middle school and high school). These teachers represented every grade level in the building, and every subject taught by a team member. Four teachers at each grade level were invited to participate. Only in the eighth grade was this goal achieved; on the sixth and seventh grade teams a variety of conflicts and time constraints precluded full participation of all who were asked. The final interviews involved three sixth grade teachers, two seventh grade teachers, and four eighth grade teachers. This included four ELA teachers, two social studies, one mathematics, one science, and one special education teacher. Both genders were also represented, with five females and four male teachers interviewed.

During the interviews some teachers spoke at length, needing little prompting as they proceeded from topic to topic. Others answered each question succinctly, providing little

elaboration while addressing all aspects of a prompt. Similar to the survey responses, the teachers were surprisingly candid, even when they discussed troublesome topics such as the challenges of planning differentiated curriculum, pressures of standardized testing, and conflicts with parents. Only one teacher (out of nine) specifically asked the researcher to keep a response confidential. Ironically, the topic of conversation at the time was not student or parent-related, but related to the participant's career goals.

Tim. This teacher had been working for 15 years, six of these as a member of Team 6-2. As a science teacher Tim described a love of inquiry methodology and desire to incorporate as much active learning techniques into students' classroom experiences. He also displayed a keen awareness of student social and emotional needs, priding himself on his ability to provide positive experiences and a safe environment where students enjoyed coming each day. Tim saw this as primary; he felt that if students were not emotionally and socially at ease, referring to this as "ninety percent of the battle," they would not be able to learn. He was also quick to incorporate new technologies into his teaching; he frequently articulated a desire to learn how to use new devices to further student learning.

Katy. As an ELA teacher on Team 6-1, Katy had previously spent many years as a special education teacher. This view point informed many of her ideas and opinions, providing for a broad range of experience and an appreciation for the struggles faced by students. She displayed a determination to reach every student, articulating a willingness to try multiple methods and techniques, even when students did not apply the same effort. Katy had been working in education for 13 years, but was new to Team 6-1 that year. She was also one of the many teachers who opened up more when the digital voice recorder was turned off at the end of the formal interview, talking much more freely and reflectively.

Kevin. An ELA teacher who had formerly worked in the business world, Kevin had been teaching for 25 years. It was only his third year on Team 7-1, but as the other members of this team had been recently appointed, he was the most senior member. An innately philosophical person, instead of focusing on academic content, Kevin continually referenced more abstract issues of adolescent social and emotional wellness, and the need for students to acquire skills required by future job markets, such as the ability to work in groups and collaborate with others. He stressed the importance of students respecting one another, contributing to the community, and being persons of integrity. Kevin also felt that what happened after class, the moments when a teacher connected with a student outside of the formal class period about non-content-related topics, offered invaluable opportunities to make a difference in a student's life.

The interview with Kevin flowed seamlessly. The researcher rarely needed to ask specific questions; one answer led naturally to related topics and themes, until almost all questions had been organically addressed over the course of the conversation. Kevin also continually maintained a team-orientation with regard to specific answers and examples; he attributed classroom successes to specific techniques learned in professional development, connected classroom triumphs to larger team goals, and frequently mentioned the advantage of having other team members upon which to rely.

Frank. As a social studies teacher who had worked for six years, all of them spent on the same seventh grade team, Frank displayed a clear appreciation of his teammates' willingness to try new ideas and listen to one another. He also noted that these team members were not quick to blame peers if a new idea did not work out. They quickly proceeded to other solutions, taking failures in stride. Frank also showed a clear desire to

understand the students' points of view, repeatedly describing the ways he tried to connect content information to events and ideas in the children's lives. He articulated thoughts pertaining to the importance of addressing the needs of all children, not just those of high or low ability who tended to make their needs known. Also, in a manner similar to Katy, once the audio recorder was turned off at the end of the official interview, Frank immediately talked more freely and volunteered more information.

Kerry. A special education teacher for 13 years, Kerry was new to the seventh grade team. She articulated a deep appreciation of the tangible ways the team members had overtly welcomed and supported her during this transitional year. Kerry felt that respect displayed in a classroom, between all community members, was paramount to learning. She also believed that a teacher's job was not only to convey content, but to help students become self-advocates; to stand up for themselves, to make their voices heard, and to take risks by offering answers and ideas— regardless of whether the answer was right or wrong.

Another interesting point was the fact that Kerry directly echoed a teammate's answer pertaining to the team's philosophy. They both said that the team firmly believed that the goal was for all students to succeed. Both teachers could clearly articulate the importance of making sure that no students were isolated or forgotten.

Michelle. An ELA teacher for over 22 years, Michelle had been a member of Team 8-1 for seven years. She continually demonstrated a global view with regard to the students, articulating an awareness of emotional and social concerns, in addition to more typical academic needs. While she was frequently frustrated by student weaknesses, she never blamed students or expressed negative views pertaining to them. Michelle continually voiced an awareness of the unique developmental features of the adolescent age group and

the challenges they faced. A prominent concern of Michelle's was the pressures produced by state and federally mandated tests. She did not disapprove of the idea of measuring student progress by such means, just the way in which these tests now superseded her own professional judgment of what should be taught and how time should be best spent in the classroom.

Michelle also expressed the most genuine interest in the researcher throughout the interview. She frequently asked about personal opinions on issues being discussed, and at the end, when the recorder was turned off, began an extensive discussion pertaining to the study being conducted. She appeared sincerely interested in the researcher's topic, methodology, and results.

Sue. Teaching ELA for six years, Sue had spent the first half of her career at the high school level. This leant an interesting perspective to her experiences and answers. As a new member to Team 8-1, Sue was deeply appreciative of the support her fellow teammates provided. She clearly articulated the decreased isolation she felt as a middle school teacher. She enjoyed troubleshooting with fellow teammates regarding problems pertaining to particular students, or simply planning an interdisciplinary project together.

Sue tailored her curriculum using knowledge of middle school students. She described how the students' excessive energy and hyper-emotionalism encouraged her to create lessons that offered a lot of choice, variety, and movement at their core. She allowed students to work together frequently and move around. Sue also talked about how she connected assignments to real world problems and concerns in order to make lessons more relevant.

Bob. As someone who had enjoyed two other careers prior to entering the teaching profession 12 years ago, one in law enforcement and the other in computer technology, Bob brought a unique point-of-view to teaching social studies. He was easily able to talk at length on any topic, almost without need of prompting. Bob was frustrated with a few current issues, but never blamed the students or administration. He openly acknowledged that his feelings may have been influenced by the time of year in which the interview took place (June), and the extreme range of abilities exhibited by the students in his classes that year.

Bob had spent five years with Team 8-2, and was the only interview participant to uniquely describe each and every member of his team and their different talents. He was outgoing and made frequent jokes, often at his own expense. Even though he articulated feelings of being overwhelmed by the demands of the job, Bob mentioned that he stayed for the students. He was enthralled with their energy level and individuality stating, "I think that's why I stay I guess. I retired once; I don't have to be here."

Sara. This mathematics teacher was not only new to the team, but new to the profession of teaching. The youngest team member, only 25 years old, she was overtly frustrated by state testing pressures and scheduling difficulties. Sara was also the only participant to mention classroom management as a topic of conversation. While all participants expressed empathy towards students, this teacher was also the most descriptive in her articulation of all the stresses a child might be facing at home, and the need for extra support and specialized interventions at school due to these factors.

Another notable characteristic was this teacher's outspoken nature and uninhibited manner when communicating her needs to administrators. She did not appear to worry about

her lack of experience or role in the school hierarchy; in story after story Sara clearly and fearlessly communicated needs, as well as potential solutions, to administrators. This forthrightness was rewarded by direct action on the part of the administration to make a schedule change or rearrange a duty because this teacher always clearly articulated why such actions would be in the best interest of the students and their learning.

Teams

Each grade level was composed of two separate teacher teams; each team had six individual members. Teams contained a special education teacher, as well as teachers from each of the core academic subject areas: ELA, mathematics, science, and social studies. There were two ELA teachers per team. See Table 3, p. 90, for specific demographic information pertaining to each team. Foreign language and fine arts teachers were not formally assigned to teams. All teams had both male and female members. They also had at least one person who had only been a member of that team for less than two years. Not all team members were able to be present for each individual focus group. Sometimes a teacher had another meeting to attend, was out of the building for professional development, or was ill.

Focus groups took place in the team leader's classroom for that specific team. Desks were always arranged in a circle, with every teacher physically close to one another and able to clearly view all members. Often teachers brought with them materials such as plan books, grade books, team calendars, and other items pertinent to that day's agenda. For example, if a discussion of student work was to be held, teachers brought examples. If a meeting was going to arrange student groups for project work, teachers brought class lists with them.

The team members appeared to enjoy warm, collegial relationships with one another. Focus group participants showed ready senses of humor, were quick to laugh, and indicated that they genuinely enjoyed spending time with one another. These traits were demonstrated by direct remarks that were made, stories that were told, as well as the relaxed body language and pleasant facial expressions of participants displayed throughout the sessions. All of the team members joked frequently and familiarly with one another, displaying an ease and comfort in their interactions.

Teams often addressed other tasks during the 40-minute focus group time period, either before or after the researcher's questions were addressed by the group. These tasks took the form of addressing scheduling changes, listening to a visitor relay information from a school committee, responding to an unannounced visit from a building administrator, collaborating by posting information on the team's website, or other such concerns. It was interesting to note that teams easily and efficiently switched topics as needed, executed true group decisions, and always remained focused on student needs. This researcher did not notice any team member engaging in off-task behavior or completing personal business; although on one rare occasion, being pressed for time, two teachers worked on other school-related tasks while the focus group questions were being asked.

A brief portrait of each team follows:

Team 6-1. Based upon information provided by the demographic surveys, the ages of the teachers ranged from 36 to 60 years. The amount of teaching experience ranged from 12 to 28 years, although all of this time had not been spent with the same team, or at the same grade level. One team member, the social studies teacher, was not present for the focus group. Based upon remarks made during the focus group, this team described specific

student behaviors they were working to change, such as poor study skills, lax organizational habits, inept use of learning strategies, and other typical middle school transitional issues.

This team did not exhibit as much physical cohesion as other teams, sitting scattered amongst three separate tables in the classroom. Although all team members actively participated in the focus group, several teachers were also addressing other small duties during that time. One teacher graded papers, while another worked on a laptop computer. At times, two teachers began side discussions concerning other team business, while other team members were focused on answering the researcher's questions. This ability to multi-task shows the flexible nature of CPT, as well as that of the team members.

Team 6-2. Based upon information provided by the demographic surveys, the ages of the teachers ranged from 24 to 41 years; the amount of experience ranged from two to 19 years. All team members were present for the focus group. Similar to the other sixth grade team, this team also tended to focus on more behavioral concerns, as well as problems students experienced with new classrooms and school routines. They understood the difficulties children had transitioning to middle school routines and expectations, frequently describing strategies they used to assist students.

This team was easily able to offer multiple, tangible examples to support their responses to interview questions, fluidly describing past occurrences and stories, punctuated by frequent laughter. They displayed a comfort with conflict, sometimes offering opposing views that were thoughtfully received by fellow teammates. They were always focused on the group business at hand and seamlessly offered multiple solutions to one another as a variety of problems and other team business were discussed.

The researcher had been able to observe this team during a previous CPT meeting (that did not address focus group questions). At this meeting the team displayed overt empathy and compassion as they discussed placing students in groups for an interdisciplinary project. While completing this task, which could have been quickly finished using a random sort of the students, the teachers took almost the full period as they pondered what student combinations would be most productive. The teachers weighed academic, emotional, and personality-based concerns as they strategically placed students in groups they felt would allow for the appropriate amount of challenge and growth for each student. They truly differentiated all aspects of this task while maintaining a focus on the whole child.

Team 7-1. Based upon information provided by the demographic surveys, the ages of the teachers ranged from 24 to more than 50 years. The amount of professional experience ranged from 2 to 32 years, although this all of this time had not been spent on the same team. Many team members had been part of other teams, at other grade levels. One team member, the special education teacher, was unable to attend the focus group. This team appeared relaxed in their views and style of operating. They displayed a genuine connection with students and an understanding of the pressures adolescents face. Having recently returned from a week-long camping field trip with their students, these views were both understandable, given the amount of time spent with the children, and surprising as well—for the same reason.

This team displayed a willingness to contribute to the larger school community; they listened attentively while a visiting teacher from another team described a new school program (Positive Behavior Intervention and Supports [PBIS] system). They asked intelligent and insightful questions following the brief presentation, and showed a sincere

openness to trying the new system, even though it would mean more labor for them. For example, teachers would have to keep more detailed discipline records and generate a paper trail immediately after a rule was broken. Given the fact that this team had only been working together for not quite one school year, it was impressive to observe their comfort, effortless humor, and willingness to listen to one another.

Team 7-2. The ages of the teachers on this team ranged from 29 to 38 years. Based upon information on their demographic surveys, the members had been teaching from four to 13 years in total. Two team members, the mathematics and social studies teachers, were unable to participate in the focus group. As the session began, one member of the group invited another to move his seat, which had been at a second table in the room, so that everyone was seated in a circle (including the researcher). Throughout the entire session, conversation flowed easily amongst the group members. This team engaged in a genuine conversation, asking one another follow-up questions in response to those posed by the researcher; they delved deeply into answers without additional prompting. Interactions between group members were fluid; members frequently supplied examples in support of opinions and ideas offered by the others. Similar to the other seventh grade team, these teachers seemed comfortable in their relationships with the students and displayed a sincere awareness of the developmental concerns of adolescents.

Team 8-1. Based upon information provided by the demographic surveys, the ages of the teachers ranged from 29 to 66 years. The amount of teaching experience ranged from 2 to 20 years, although this time was not necessarily all spent with the same team. The special education teacher was not present for the focus group. Similar to other focus groups, this team seemed comfortable offering opinions and ideas in response to the researcher's

questions, and engaged in frequent jokes with one another. It was interesting to note that no fear of repercussions or disapproval was shown, even when teachers offered critical views. The team members were honest, sincere, and deeply interested in each other's answers.

This team displayed the most overt interest in the researcher, asking several personalized questions pertaining to methods other schools used to deal with particular middle school challenges. They openly reflected upon new information that was provided and instinctively began to apply new ideas to their own school setting. This behavior showed an openness of mind and an action-oriented disposition towards problem solving.

Team 8-2. Ages of the teachers on this team ranged from 25 to 59 years. The amount of time spent in the teaching profession ranged from 2 to 25 years, although some of this time may have been spent on other teams. The science teacher was unable to attend the focus group. While all of the teams professed support and encouragement for one another, this team actively displayed these beliefs during the focus group. For instance, following an expression of self-criticism by one team member, a colleague immediately chimed in to contradict this viewpoint and offered examples in support of her opinion. She was easily able to list many times when her teammate had shown himself to be caring and hardworking.

In a manner similar to Team 7-2 members, the teachers of 8-2 engaged in a free-flowing conversation amongst themselves; they reflected on answers offered by other team members and asked follow-up questions of one another, unprompted by the researcher. They were not satisfied with surface interpretations of problems, and did not unduly blame students for problems. For example, when discussing the difficulty of keeping students' attention while teaching, the group began a deep philosophical discussion about modern

technology, new biological insights on adolescent brain formation, and how to best take advantage of this knowledge to reach all students.

This team continually focused on root causes; they kept the conversation directed on larger issues of student behavior or parent actions that influenced teaching, learning, and curriculum. Team 8-2 frequently cited information when asked about opinions from other domains using research, past experiences, media, and technology to support their views. They frequently articulated a willingness to embrace new technologies and a desire to capitalize on student interest in 21st century devices and instructional methodologies. While reflective, they were action-oriented experimenters, unafraid of taking risks in the classroom. At one point in their conversation, while they discussed possible solutions to a current problem one of them asked, "What's the next step?"

Administrators

A unique feature of the administrative team was the fact that they were all hired for their present positions during the same year, although this was not the first administrative position for the majority of them. They had spent almost six years working together in this middle school building. Throughout each interview, every single administrator referred proudly to the balance of skills and competencies represented by the various members of their administrative team. Each person remarked upon the perfect way this variety of talents worked to create an efficient and effective administrative group. They all openly commended one another without prompting from the researcher, and frequently remarked upon how much they enjoyed working together.

The administrators represented a wide range of experiences and expertise. One was a former high school English teacher, one a former physical education instructor, and one a

former elementary classroom teacher. The amount of time they had spent in the classroom also ranged widely, from less than five years to more than 30. Both genders were also present.

All three administrators were generous with their time, whether it was participating in an interview, promptly answering e-mail queries, or personally escorting the researcher to destinations within the school itself. They were professional, hospitable, and warm in all interactions; as well as thoughtful in their responses. Each administrator reflected a true compassion for middle school students and a justifiable pride in the building and district as a whole.

Assistant Principal One (Ms. Wolcott). As a classroom teacher for over 33 years, this past union leader brought a wealth of experience to the administrative position. Forthright in both speech and manner, this self-described "bossy," former ELA teacher spoke frequently of the importance of raising academic standards. While Ms. Wolcott frequently voiced a need to focus on student social and emotional needs, she also felt both students and parents should be a more active part of the educational process.

She clearly took pride in the commitment she felt all three building administrators had made to the concept of teaming, attending most CPT meetings of her assigned grade level and stressing to teachers the value of this precious time. She easily praised the diverse and advanced skills of her administrative teammates, and expressed a deep love for a job she found "invigorating" and surprising every single day.

Assistant Principal Two (Mr. Born). This administrator had also spent the majority of his career in this district, teaching physical education and later directing that department (K-12). Speaking rapidly, he maintained a high level of energy and passion throughout the

interview. He frequently cited statistics pertaining to state test scores, attendance rates, and so forth, to support his views regarding the success of the school and the high abilities of its teachers. Mr. Born voiced his that primary job was to support staff with regard to resources, scheduling changes, professional development, or whatever needs they made known.

He also felt strongly that parents needed to play a large role in students' lives, especially at this "critical age." He easily listed the many actions parents needed to take in order to know what their children were doing, academically and socially, as well as praised the fact that he felt the majority of parents in the district were already fulfilling these duties.

Principal (Mr. Dooley). Mr. Dooley had a similar high energy level and rapid speech pattern as Mr. Born. A deep thinker, he continually investigated ideas broadly, in a global fashion. He talked aloud as he thought, immediately beginning to propose solutions, cite examples, and suggest methods to apply to a particular situation. For example, when asked to identify a personal goal, he stated a desire to add more arts and enrichment programs. He started to discuss dance programs, strings classes, and drama training. He discussed past examples of student interest in these areas, linked this to student motivation and school success, and began sketching out an afterschool program that would provide such services.

This man of action was also unceasingly critical of the school, programs, and himself. This often led to further citation of research and potential solutions. He never assigned blame to people— students or adults— but faulted systems and structures, either by absence or presence. Using this lens to view the school community, the principal saw solutions everywhere. For instance, he talked of the wonderful support the school received from the Parent Teacher Organization (PTO), and immediately began to discuss ways he wanted to

utilize that group to connect with more parents. He described targeted educational programs and outreach that would educate parents about key developmental issues and strategies to help them help their child succeed in middle school. He was instantly able to describe specific actions and ideas.

Definition of Major Themes

Initially, preliminary hand-coding of the transcripts revealed over 100 separate codes. These were transferred to small pieces of paper, color-coded by source (focus group, teacher interview, administrative interview, open-ended survey). Next the small papers were arranged according to larger, overlying themes on a large sheet of chart paper. By physically arranging the smaller papers, literally overlapping by source as well as subtopic, smaller themes were collapsed as larger themes emerged.

A secondary coding was conducted using HyperResearch software (Fourth World Media Corporation, 2011). As codes were entered into an electronic code book, corresponding passages in the text were highlighted by hand. In the end, 77 different codes were identified. For a list of codes and definitions see Appendix M. This computer-aided coding was conducted independent of the hand-coded results. The researcher did not consult the color-coded papers while using the computer in an effort to support the truth value of the findings and themes. Similar to the preliminary hand-coding and use of the small paper poster, there was much overlap between codes; many passages were associated with more than one code. The computer program's capacity to search by specific code name, both within and between cases, was invaluable with regard to the researcher's ability to make connections between cases and identify larger themes.

Both code sets (hand codes and computer codes) were examined to identify repetitive codes, or those that were not truly unique. Some of these similar codes had simply emerged from different sources, or had been articulated with a different use of language. Closer inspection revealed many codes that did not warrant separate terminology. This exercise shrunk the final code list to the 77 terms found in Appendix M.

Both preliminary hand-coding and the computer program were also indispensible in showing that code frequency did not correspond to the depth or importance of a theme. For example, teachers may have mentioned a specific code such as "test" many times, but that may have been tied to a specific school-wide state test that had recently occurred, or a discussion topic from that day's faculty meeting. The deepest themes were revealed by their occurrence across multiple sources, showing the power of triangulation, or by the content of what a teacher said while discussing a particular topic. For example, empathy was a significant theme, but that exact word was very rarely used. Empathy was shown by the stories teachers told with regard to how frequently they embraced the student's point-of-view to understand motivations, overcome obstacles, or devise new methods of assistance. The depth of this code was revealed by the details and power of the responses, not their frequency. These findings were supported by Pajares' (1992) observation that participants were "often loathe to engage in discussions that touch on what they feel are their most deeply held beliefs" (p. 316).

After the two main research questions were finalized, a list of constructs to be explored was developed. Questions were created for surveys, focus groups, and interviews that specifically addressed these constructs. Data were collected and coded. Major themes were then identified. A brief map outlining this process can be found on pg. 143 (Figure 1).

A more thorough and detailed trajectory of the procedure can be found in Appendix N (pg. 283). Within this Appendix specific codes are linked to the questions and instruments used, as well as themes connected to explicit research questions.

The three main themes were as follows:

1. **Empathetic Attitude towards Students** pertains to the overt, compassionate attitudes teachers and teams expressed with regard to the myriad of challenges faced by their students.
2. **Team Attitudes: Flexible, Supportive, Risk-taking** refers to the three main attitudes shared by the team members as revealed by all data collection methods. Flexible pertained to a teacher's ability to quickly make and positively embrace changes, supportive referred to guidance and assistance provided by fellow teammates, and risk-taking referred to a teacher or team's willingness to try out original ideas or experiment with the application of new programs.
3. **Beliefs Pertaining to Adolescence** was a prominent theme centered around the unique needs of middle school students. All participants frequently articulated their profound awareness of the distinctive physical, emotional, and intellectual challenges their students faced.

Figure 1. Research Trajectory from Question Identification to Theme Emergence

Research Questions

1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Constructs and Topics Explored

teams, effective middle level curriculum and teaching methodologies, student characteristics, school structures (physical and organizational), role of administration, role of parents, team work habits, teacher personalities, how and in what ways team members interact, how meetings are conducted, how team goals are set and measured, how CPT is typically used, team vision, teacher preparation, scheduling, communication, professional development, and transitions.

Questions for Surveys, Focus Groups, and Interviews

(Appendices B, D, E, & F)

Data

obtained from: open-ended surveys, focus groups, interviews, artifacts

in the form of: written text (open-ended surveys, documents, artifacts)
oral responses (focus groups and individual interviews)

Codes

Hand-Coding and Computer Coding (Appendix M)

Main Themes

1. Empathetic Attitude towards Students
2. Team Attitudes: Flexible, Supportive, Risk-taking
3. Beliefs Pertaining to Adolescence

Exploration of Themes

Empathetic Attitude towards Students

Individual Teachers. One theme that clearly emerged pertained to an attitude of empathy. The participants repeatedly displayed overt empathy via the stories they told and the language that they used. This empathetic attitude influenced interactions they had with students, methods they used to plan and deliver instruction, communications with administration, exchanges with parents, and the working relationship amongst team members themselves. These teachers on teams with CPT continually examined a variety of topics from the point-of-view of the students; they articulated a wide range of emotions and frustrations that displayed empathetic attitudes.

Student Personal Needs. During an individual interview, Sara expressed direct empathy by describing her eagerness to extend extra time and effort helping students acclimate to middle school in preparation for the more rigid expectations and demands of high school. She contextualized these challenges in terms of student age and maturity level, "They're young, and you need to really help them because some of them aren't at the point where they can do everything themselves." She talked about giving them "more chances," and also understood that some of them had little structure or support at home. Sara was very aware of the fact that many children did not have parents at home monitoring their study habits. Instead of bemoaning factors beyond her control, she connected this to her larger philosophy of teaching and the importance of building personal relationships with students, "You have to get to know the kid. You've got to teach the individual student, not the masses." Such views came from teachers who were more likely to listen to a student explain why a homework assignment was overdue, look more closely at a student who came to

school without a winter coat, and notice the child hanging out in the hallways each day until five or six o'clock in the evening because there was no one at home.

Other teachers expressed empathetic attitudes with regard to the pressures students of this age faced pertaining to social and physical demands. Tim perceived that this increased pressure on students was exacerbated by the lack of control students had over so many parts of their lives. "I understand that they are going through so much. They're being pulled in all different directions. . . . it's a tough age. The kids have a lot of stuff going on." Many other teachers acknowledged the stress students were under as they navigated the rocky waters of adolescence. As Jan noted, "They typically seem to be unsure of themselves and still trying to figure things out, but they hide it with false confidence."

Academic Pressures. Michelle discussed the academic stress of preparing for high school, the fact that grades had more weight in middle school and would be used to make future course placement decisions, ultimately influencing college acceptances. She viewed this in terms of higher academic expectations and a lower tolerance for mistakes, "Everything is on something called a transcript that's going to follow you. You want a job when you graduate? You want to go to college? . . . Oh my God, please don't blow it!" Over and over these teachers displayed overt empathetic attitudes towards the many challenges, academic and other, that middle school students faced.

These expressions of overt compassion also influenced the ways in which the teachers planned and delivered instruction. Kevin expressed an awareness of differing student backgrounds and experiences when he said,

> So if a student, for example, has traveled [extensively] . . . they're going to be able to write a great essay. But some kid who has never been out of this town, and doesn't

> even have even a television set, or cable, or any internet— well they don't have the same opportunities.

Later in the interview Kevin tied this tangibly to the ways in which he differentiated student writing prompts that allowed all students to find writing topics they would be passionate about and experience higher levels of writing success.

Bob also allowed this sympathetic attitude to influence his ideals pertaining to curriculum and instruction, advocating for a more flexible and revolutionary model of student progress and grouping. Bob noted,

> Everyone is so different. Emotionally, they're so different from one another. Their academic needs are so different from one another. . . . If I could do what I wanted to do in a perfect world, we would teach like a karate class. We would teach and move kids along at their own pace, at their own level, based on the skills that they achieve and they demonstrate, and based on their maturity and their overall abilities and whatever.

Teachers used such insights to influence the creation of lessons to which students could more readily relate. A history teacher, Frank realized that events occurring in the very distant past hold little appeal for contemporary students, that it is literally difficult for them to understand historical events because they cannot identify with the people or places. He extended additional effort to create entry points for students that tapped into their personal experiences, "Put it down to their level; link lessons to things that are relevant to them. It's things like— if you can make comparisons to things that are going on in their lives. I think that's really important for them."

Real life applications of the content and skills being taught was another area of concern for these teachers. Evie described the importance of "Trying to explain the purpose— why we need to learn this", or as Pete summarized, "Lessons need to have real-life applications, clear purposes."

Teacher Teams. Similar themes were found among team members as well.

Student Personal Needs. The teachers also displayed empathetic attitudes during team meetings, confirming the magnitude of this theme. Team 6-1 members eloquently spoke of an awareness of the stresses faced by incoming students, especially in consideration of the many new skills and routines that must be mastered as part of the transition to middle school. The team members talked of the shock students felt when facing so many different teachers in a single day, while having to adjust to more difficult and varied academic expectations, which came with increased amounts of homework and tests. As Linda observed, "It was really a challenge. I mean, some of the kids were okay and some just didn't have a clue." The other sixth grade team members supported these views regarding the challenges students faced in their transition to middle school, "It's really hard. . . . They had smaller [classes] . . . with the same kids all day; they stayed in one place, as opposed to now, they rotate between classrooms and are with so many different students." (Team 6-2, Unknown Female 2) These teachers clearly understood, and empathized with, the reasons why their students had difficulty with all of the changes.

These teams recognized that the new freedoms found in middle school presented difficulties as students learned to balance new responsibilities and competing social demands. The words "demands" and "adjustments" recurred again and again during the focus groups. Teams reflected on how middle school students, in addition to dealing with new-found

academic demands, were also, “trying to find themselves. Figuring out who they are” (Team 6-2, Unknown Female 1). The team members noted that middle school was a time when students explored new areas of interest via class activities, after school clubs, and the formation of new friendships. Team 7-1 members described this identity search as a time when, “they’re trying to figure out who they are. . . . Everyday they’re evolving . . . trying to find out . . . where they’re going . . . who their friends are; it’s a big year of change” (Ellen). Discussions with the teams revealed the belief that they felt assisting students in this quest was as important as the delivery of content. In the words of a Team 7-2 teacher, “You are teaching them and help[ing] them become who they want to be” (Karen).

***Academic Pressures*.** Similar to the individual interviews, the teachers on these teams also revealed that these empathetic attitudes influenced the ways in which they planned and delivered curriculum. Teachers personally identified with the struggles students faced when attempting to internalize new methods of studying. Pete, on Team 7-2 expressed,

> I look at the way things worked for me and what didn’t work for me. I was a 12-year-old boy, a typical 12-year-old boy. I see what did not work well for me in a language arts class when I was growing up. So, I try taking what would’ve worked for me when I was that age and apply it to my instruction now. I think that’s important.

Teachers did not lose sight of the developmental challenges whether they were physical, emotional, social, or intellectual. They used these insights to shape more effective instructional methods.

Administration. Similar themes were also found among administrators.

Student Personal Needs. The administrators expressed sentiments that mirrored the empathetic attitudes shown so clearly and continuously by their staff members. One assistant

principal plainly agreed with the teachers with regard to the challenges faced by middle school students, as well as their identity quest. Parallel to the teachers' sentiments, the assistant principal was not surprised or frustrated by these traits. She observed,

> They [students] tend to be very forgetful and impulsive, very focused on socialization, and focused on claiming themselves and finding themselves. What's important is rarely what's going on. We're working hard delivering curriculum, but that's really not what's important. What's important is all the 'What does someone think about me, what is someone saying about me, how do I look?' . . . . I think that for the middle school child, it really is ego to the nth degree; just like, 'How does the world revolve around me today?' But it's not a bad thing.

Nonplussed, she was simply stating a fact: this was what middle school students were like. She recognized this characteristic and embraced it, actually enjoying the ways in which these traits influenced daily life at the school.

In addition to expressing a variety of statements that demonstrated compassionate attitudes towards the emotional, social, and academic challenges faced by students at school; this administrator also confirmed the teachers' views regarding challenges students faced at home. She acknowledged that some students, "Have no support. I don't know how they do it, how they get anything done? . . . You've got kids who are hanging out there on their own." Such views validated those of the individual teachers and the teams. All members of this school community looked closely at the individual student in an effort to understand the particular behaviors being exhibited. As this AP noted,

> Similar to attendance, when they [students] come late, we give them consequences. But they [students] don't drive. It's not like they really have control over everything.

> It's always a dilemma. . . . We always are taking into account all of these different factors of the child. Whether it pertains to academics, or behavior, or whatever; we're always trying to balance— okay, 'What's going on? What's the situation?

Such empathetic attitudes, expressed by all three administrators, were not spoken in a judgmental or derisive fashion. All three administrators quickly discussed such problems in the context of working parents, single-parent households, or simply the many demands of modern society. Akin to the teachers, the administrators did not waste time placing blame or complaining about things beyond their control. Issues were discussed as fact, immediately followed with different solutions and positive actions to be taken to compensate for these challenges.

Academic Pressures. When asked about a "dream" goal the principal answered, without any hesitation, "I would want an extended-day-wrap-around program, if I could have an eight-hour school day, that would be amazing! If we could run on a trimester basis, have school 11 out of 12 months a year— that would be amazing!" This was not a means of providing free baby-sitting either. The principal went on to describe a program that would provide arts education, foreign language instruction, and enrichment programs. He dreamed,

> The opportunity to have more time in the day would allow us to go much more deeply into some really interesting concepts. I think teachers feel a lot of pressure right now to cover their curriculum, and they give short shrift to experiences where kids really could do some deep exploration. And in those times when we've been able to do that . . . you've seen kids just take off!

Ms. Wolcott talked about trying to encourage similar empathetic attitudes among the students. She wanted to support such compassion and understanding. "I want to see the

impact of the positive, kids understanding and practicing. . . . empathy for one another instead of a lot of the mean stuff that they do. It's important. It makes a difference— that's my goal."

Theme Summary. The empathetic attitudes teachers and team members displayed towards students influenced the instructional methods they chose, how school rules were enforced, the pace of curriculum, and the ways in which many other professional tasks were executed. The teachers gave many examples of the barriers students faced due to their age and personal situations: the challenge of transitioning from elementary to middle school, the lack of support at home, new social pressures at the middle school level, recent physical changes, and the stress of preparing for high school and college.

Due to these empathetic attitudes, teachers, individually and working with their teams, used the structures and systems in place as a spring board to providing more personalized educational experiences for students. For example, Sara told a story of how she frequently sacrificed her personal lunch period to work with struggling students. During the current school year, her lunch period did not coincide with the students'. Instead of being relieved that she could now use this time to relax, eat, and perhaps catch up on other work, she asked the principal to change her schedule to that she could once again share a common lunch period with her students to offer the personalized assistance she saw necessary. She remembered, "I brought that up and I said 'Can I just have lunch with them so I can help them?' "

Such lunch time assistance was in addition to contract-mandated after school "help" sessions regularly available to students. This consisted of a schedule listing specific times and teachers prominently posted around the building and in district publications. In fact, not

once during any of these conversations did the teachers allow their personal views about what was best for students to be influenced by outside mandates such as contract regulations, state or federal mandates, or other such external forces. Another teacher mentioned that she knew some students were unable to come to afterschool help sessions because of other responsibilities at home, such as taking care of younger siblings. Barbara noted,

> There are kids [who] go home, and it's not a regular life; a parent is working all night; they're going to be with a brother and sister for the rest of the night and homework doesn't get completed. . . I feel for those kids. And I understand it.

Such empathetic attitudes allowed the teachers to meet the needs of a wide variety of students.

Team Attitudes: Flexible, Supportive, Risk-taking

Individual Teachers. During the individual interviews, each participant specifically mentioned the word flexible. The teachers used it to describe the personalities of teammates, the methods with which they dealt with scheduling issues, and the ways they planned curriculum. To these teachers, a flexible attitude was a positive quality. It did not mean a person was easily influenced or passive; it did not mean a person was void of original ideas and plans. Instead, a flexible attitude was a quality of adaptation, the ability to make the best out of a situation, roll with the punches and come out on top. A flexible attitude involved the maintenance of an optimistic outlook towards the variety of changes and challenges that filled each middle school day. Michelle described this flexible attitude with the following words,

> We do more re-arranging of schedules in order to provide kids with . . . whatever is going on; we do it so much. . . . You have to have your knees bent all the time in

> middle school because otherwise, you're going to get thrown off balance. You have to be flexible! Flexibility is really important in middle school.

Flexible - Academics. For example, when planning an interdisciplinary project the teams frequently allowed students to work in groups of their own choosing, selecting from the entire student population of the team, not simply peers from a particular class period. This necessitated a rearrangement of all class lists during the project work times, which were blocked periods. During one CPT meeting this researcher observed the team members spending the majority of the meeting period deciding where each student group would work, with regard to specific teachers' rooms. Great care was taken to ensure that the number of students and groups per room were balanced in temperament and individual needs, as well as number.

Flexible - Scheduling. Changes were always made from a child-centered perspective. Whether it was a change to the schedule, the creation of an interdisciplinary project, or something else, changes were always made with the best interest of students and their learning in mind. The flexible attitude overlapped with the omnipresent empathetic attitude as Sara observed,

> We work well together; we're very strong on the teaching the full kid, thinking about what goes on at home. I don't know; we're more 'go with the flow.' I'm very good at, if last minute you walked into my room and said, 'Hey! We have to do this block [period] four.' You're going to miss my block four class? All right, I can go with that easily. And I feel like that's how our team is as a whole, because we understand, especially with middle school— they're changing stuff on us all the time like, 'Last minute assembly block seven.' You know, stuff like that. So we're really good at

> adapting to change quickly. I think that's necessary in middle school. We work really well together. We have the same types of beliefs about teaching students and stuff like that.

Sara noted that this perspective, the importance of a flexible attitude, was not only a personal stance, but one held by the entire team. It was a shared attitude that influenced everything they did. Very often a schedule shift would have to be made at the last minute, whether it was a rescheduled assembly due to a snow delay, or the lengthening of a testing block due to recent change in state assessments; these teachers freely gave up time when asked. They knew how to adapt a lesson or homework assignment at a moment's notice to support the team's work as well as the individual students.

Flexible - Team Tasks. The teams also maintained a flexible attitude with regard to the roles and jobs of each member. While there were established team leaders, a stipend position for which teachers formally applied, other jobs and tasks were freely shared among members. As Frank related about completing such work,

> For different tasks and for different occasions, one week it might be someone taking on a job, and the next week it might be someone else who has really taken it [the job or task] on. And it might be something that they're good at. It might be something that, you know [they are not]. People have good weeks and bad weeks; and I think that whoever needs to step up will step up that week. And that's a really good thing about us.

Frank viewed this flexible attitude as a strength of the team.

This ability of each teacher to help out and perform whatever tasks were necessary, from week to week, allowed the team to function fluidly and efficiently. These jobs took a

wide variety of forms. One week the team needed to appoint a representative to a newly formed discipline committee. This required a large time commitment pertaining to attendance at multiple outside workshops, relaying information back to individual team members, and assisting with the planning of curriculum to train students in the new system. Another week the team simply needed someone to draft a general letter to parents reminding them about upcoming important dates (field trips, project due dates, major tests) or asking their assistance with the maintenance of good student study habits at home (Figure 2, pg. 156). This task barely took 10 minutes to complete.

The teachers also noted that such flexible attitudes were apparent during CPT. While the teams did have specific agendas, and certain days had required tasks to be completed, within that core structure was much flexibility. During one Wednesday "Hands Up" meeting, a concern involving a particular student was raised. This student had not completed homework lately, and the first intervention, put into place following a meeting three weeks prior, involved a task sheet the student would carry from class to class, having each teacher sign it at the end of each period. The team diverged from the formal meeting structure of specific time allotted per student discussed, as they began to troubleshoot in a meaningful way. Different team members chimed in with a variety of new ideas, ranging from the use of a computer program to a certain disciplinary action. It was jointly decided that a positive, behavior modification system involving the use of tokens and earned rewards may work better with this student. The teachers used their personal knowledge of the student to devise this solution, and the entire group felt as if their views had been heard. While the meeting structure had been temporarily suspended, the inherent flexibility led to a good solution to this particular problem.

Dear Parents:

Our third quarter is now in full swing. It is a busy time for students as they continue to develop their academic, organizational and social skills. As your child moves forward and makes progress throughout the remainder of this school year, [redacted] teachers think it is a good time to send home to all parents some reminders about what is expected of each student. The majority of our students are performing to the high level of expectations we have set. We appreciate your partnership in reviewing with your child, the high expectations we share for them in the following areas:

- Turn in assigned work (including homework)
- Prepare for quizzes and tests
- Put forth effort on written assignments and projects

- Stay on task, and not chatting in class
- Display good manners in the hallway between classes
- Demonstrate healthy character traits such as civility, honesty and cooperativeness

Our goal is to maintain a learning environment that allows for the attainment of a high level of achievement from your child. We believe that with effort, every student can achieve excellent results which will lead them to a wonderful future.

In closing, we thank you in advance for supporting our efforts by reminding your child that his or her behavior, effort and success is of the utmost importance to all of us.

Sincerely,

[redacted] Teachers

Figure 2. Joint letter to all parents from a team demonstrates the maintenance of common expectations, as well as a focus on student developmental needs, in addition to academic concerns.

This flexibility was valuable due to the demands of middle school life; things often changed moment to moment. As Kevin noted, “There’s a lot to do. There are so many things that come at you, and it comes very fast! They’re all important, so they have to be addressed. We do a lot of advance planning, and big picture planning.”

In the previous quote Kevin demonstrated the team’s continual focus on larger goals of the grade level and school. Although the demands of students and needs of the school continually shifted, often requiring immediate attention; the flexible attitude essential to addressing these issues in a competent manner also allowed the teams to maintain focus on larger goals. Tim confirmed this. He listed a myriad of tasks conducted during CPT, a list echoed during every teacher interview: planning interdisciplinary work, sharing teaching and assessment strategies, completing “positive postcards” to be sent home commending extraordinary student efforts and achievements, examining student work for strengths and weaknesses, discussing struggling students, and coordinating field trips. But yet the team’s underlying foundation and focus were articulated by Tim, “Where do we want to go in the future? We’re using these meetings to see where we want to go with things.”

Flexible - With Structures. The teachers knew the importance of having solid school structures in place such as clear policies across teams and grade levels. There were common expectations regarding many habits and procedures such as student work (quality, late policies, “make-up” opportunities), timing and weight of district benchmark assessments, study strategies and organizational tips, frequency and topics of Advisory meetings, discipline policies and penalties, and the use of particular assessment rubrics across subject areas. For example, teachers used a common writing rubric to assess student writing independent of the specific subject area (Figure 3, pg. 158).

Writing Rubric

	Purpose (audience awareness, task, voice)	Idea Development (accuracy and relevance of details)	Language (word choice, vocabulary, usage)	Organization (sequencing of ideas, transitions, stays on topic)	Sentence Structure (correct and complete, structure and variety of length)	Mechanics (spelling, punctuation, capitalization, paragraphing)
6	• demonstrates exceptional understanding of task and awareness of audience • seems to be writing from knowledge or experience, and has taken the ideas and made them his or her own.	• reflects sophisticated thinking: synthesizes, evaluates, and/or generates ideas • ideas are strongly supported with a variety of accurate and relevant details	• uses sophisticated and interesting vocabulary that enriches the writing • uses exceptional word choice that is accurate and precise	• writing is seamlessly organized from beginning to end • uses a variety of thoughtful transitions effectively • stays on topic throughout piece	• sentences effectively vary in structure and length • no fragments or run-ons	• contains few to no errors in grammar, spelling or punctuation • paragraphing is effective
5	• demonstrates effective understanding of task and awareness of audience • effectively attempts to relate to the topic and make the ideas his or her own	• reflects creative thinking: synthesizes, evaluates, and/or generates ideas • ideas are well-supported with many accurate and relevant details	• uses effective and interesting vocabulary that enhances the writing • uses effective word choice that is accurate and precise	• writing is solidly organized from beginning to end • uses many thoughtful transitions effectively • stays on topic throughout most of the piece	• most sentences are well-constructed, varying in structure and length • minimal number of fragments and/or run-ons	• contains some errors in grammar, spelling or punctuation, but none of which interferes with meaning • paragraphing is mostly effective
4	• demonstrates adequate understanding of task and awareness of audience • seems to be drawing on knowledge or experience, but there is some lack of ownership of the topic	• reflects an effective attempt to evaluate, synthesize, generate ideas • ideas are mostly supported with a variety of specific details, some of which may by inaccurate or irrelevant	• uses a mix of effective and interesting vocabulary that adds to the writing • uses word choice that is mostly accurate and precise	• organized throughout most of the piece • uses some transitions effectively • sometimes strays off topic	• many sentences are well-constructed, but have a similar structure and length • few fragments and/or run-ons	• contains several errors in grammar, spelling or punctuation • paragraphing is adequate
3	• demonstrates general understanding of task and some awareness of audience • lacks ownership of topic, simply reporting the ideas contained in the text	• thinking lacks depth and/or clarity • ideas are not well supported • contains a minimal number of accurate or relevant details	• uses mostly simple vocabulary that lacks interest • uses word choice that is somewhat inaccurate and/or imprecise	• somewhat organized from beginning to end • uses few or the same transitions throughout writing • often strays from topic, and repeats ideas	• sentences are simplistic and lack variety • several fragments and/or run-ons	• contains distracting number of errors • paragraphing is present, but weak
2	• demonstrates little understanding of task and audience • has not tried to transform the information in a personal way	• reflects limited thinking • contains few accurate or relevant details, or simply lists details	• uses simple or repetitious vocabulary • uses word choice that is mostly inaccurate and/or imprecise	• writing is unorganized • uses a few transitions ineffectively or no transitions • lacks a clear topic	• sentences lack structure and appear incomplete or rambling • numerous fragments and/or run-ons	• contains multiple errors that interfere with meaning • paragraphing is not present or is simplistic
1	• demonstrates lack of understanding of task and audience	• reflects a lack of understanding • contains no details	• misuses vocabulary • uses confusing language that detracts from meaning	• writing is short and/or confusing	• sentences are few or non-existent • fragments and/or run-ons present throughout writing	• contains numerous errors that make writing incoherent

Figure 3. A common writing rubric was used by all teachers on the team to assess written assignments independent of specific subject area expectations or foci.

Yet the empathetic attitude teachers displayed clearly influenced the role a flexible attitude played within this larger context. As Kim observed, "Middle school students benefit from teachers who are structured and consistent in their classroom procedures. Yet a teacher must be flexible and willing to change gears with little warning." Interestingly, Michelle chose the exact same metaphor as she noted, "As middle school teachers we learn to be very flexible— we are asked to shift gears fairly often. Our kids benefit from teachers who aren't thrown by change."

Supportive Attitude. The teachers interviewed displayed an innately supportive attitude towards the other members of their teams. This took the shape of assisting one another with minor tasks, such as covering the classroom of a colleague when he or she needed to quickly run to make extra photocopies, to larger tasks such as co-leading a professional development class on the use of new technology. Openly supportive behaviors were another way teams actively showed their flexible, empathetic attitudes. Teachers were always able to take on the point-of-view of a peer; they lent support often with a kind word or a shared laugh. Time and time again the teachers easily and openly praised one another in stories they related to this researcher.

Supportive Attitude – New Team Member. Kerry eloquently described the supportive attitude demonstrated by teammates as she transitioned to being a member of Team 7-2 that year. Although she had been teaching for more than 13 years, Kerry was new to this team. For the past five years she had taught a self-contained special education class that involved a much smaller class size, with students who had atypical needs. Students worked overtly on social skills as well as basic academic competencies. Kerry noted,

> I feel pretty lucky that the people that I work with are very supportive; always, they're supportive. For the first few months of school this year, I felt like a first-year teacher. But I was not a first-year teacher, so I was really struggling with that. And Karen, you know, she wouldn't let me say, 'I don't know what I'm doing.' She wouldn't let me stress out . . . [she said to me], 'You bring a lot to the table,' and she would point out— she was very, very encouraging! She [admonished], 'You need to stop it. You're being too hard on yourself.' So she got me through that little period of time where I was feeling very stressed.

Supportive Attitude – Strength in the Team. The teammates fluidly described how this supportive attitude was influenced by one another whether it was discussing methods to help a struggling student, better means of communicating with parents, or simply helping sort permission slips for an upcoming field trip. As Katy stated, "We back-up each other. If we're having a problem, you know you can go into another teacher's room on the team and say, 'Are you seeing the same issues?' You stand up for each other, make sure everything's all right." This confidence of having the implicit support of five colleagues eased the transition of new team members, while it simultaneously supported veteran members struggling with other issues. These challenges might take the form of Common Core Standards that must be incorporated into daily teaching and assessment, a new computer attendance and grading system to be mastered, or perhaps a troublesome student who refuses to complete any homework. Team members knew they always had five peers to offer potential solutions or lend a hand.

One teacher (Cheryl) expressively described how this supportive attitude was embedded in the nature of the team construct itself,

> My concept of middle school teaming is implicit in the name: teaming. We are a team working together for the collective and individual good of the students for whom we are responsible. To this end we collaborate to determine interventions, problem solve, establish reward systems, etc. Furthermore, we also provide a much needed support system for each other to deal with individual situations and stresses that are inherent in the job of a middle school teacher.

Supportive Attitude – Strength in Diversity. The prevalence of this supportive attitude was not due to similar personalities or work styles of the team members. In fact, teacher after teacher noted that the strength of his or her team, the root of such supportive attitudes, was the innate differences among the members. As Bob observed, "Our team is a mix of new and veteran teachers that is a very effective group. . . . We support each other and get along very well."

Peter also noted this range of talents among his team members,

> We complement one another very, very well. . . . Cheryl has been our liaison to the data team in the building. She is our go-to-person for that. I have taken on the responsibility as team leader. . . . Being able to tap into that kind of experience and put it to best use is the best way I can describe the cohesiveness of our cluster. Kristen is an excellent, excellent sped teacher. . . . some of these kids, I don't know if they'd survive if she wasn't there. Just that team within a team if you will. And the youth of Sara. . . . So she's very exuberant and unbridled in some respects, but that's really a good thing. Colleen across the hall is kind of our motherly type I guess. She just wants the struggling kids to succeed, and wants to help them out, and is that positive

> force— not that everybody isn't, but more so when needed. So it's just kind of, you know, everybody kind of fills that little niche. It has been working really well.

Tim corroborated this idea of strength via diversity, "We all have different personalities, but we work together very well. We each bring our own strengths . . . . We help each other out. We're willing to talk to each other and listen. It's a really good team."

Supportive Attitude – Trust and Honesty. This ability to listen to one another without judgment was positively cited by several other teachers. They felt that the implicit trust among the team members was part of its strength. The team structure and CPT created a safe place to air frustrations, admit difficulties, and share triumphs. Michelle commented, "We respect one another. We feel— we trust one another. We can say whatever it is we want to, we know it won't go— nothing leaves. Nobody goes behind anybody's back. We like one another."

Sue confirmed these feelings pertaining to the supportive attitudes shown by teammates, their willingness to share labors, and their honesty with one another. She observed,

> I love [my team]. They're really great people; and that is the biggest thing I think— outside of working with them— I love them. We have an honest working relationship. We all participate equally in conversations and share the workload. . . . We always put things right out on the table. If we have a problem, we come and we meet. We don't ever close the door and talk about a situation alone with someone. We always come into a room saying, 'Come, and let's talk about it.' It is just really a pleasant working experience. I can't believe it exists— but it does.

When asked to name the professional accomplishment of which she was most proud, without hesitation Michelle noted that she took great pride in how well she worked with her teammates,

> Just working really collaboratively, with other people; being in a cluster [team]. . . . This is so great for adults. If you have a good cluster, like I do, it's really priceless in a way. . . . I think support for— certainly taking it from where it should start with, which is with kids, allows us to give better care to kids when they still need it. I still feel that they are kids, so that's primary. Secondly, but of equal importance, is the fact that [the team] supports me. I have people that I can really talk to who get everything. . . . If I weren't on this team, I would want to be on this team.

Other responses showed the universal nature of this supportive attitude among the individual teachers. Sue succinctly replied that her team was "Happy, trusting, supportive—we depend on each other while being open and honest. I love them!" These views were supported by Kerry, who was on a different team, "Although this is my first year working with this team. . . I have a great rapport with them. Everyone is supportive and helpful whenever needed." This supportive attitude took a myriad of forms. As Angie summarized, "Our team is like a mini-family. We all support each other whether it is covering a class/duty, dividing up phone calls, or bouncing ideas for lessons off one another. We are also there for each other for emotional/stress support— by listening or joking around."

Risk-taking Attitude. The supportive attitudes of fellow teammates also encouraged a sincere willingness to try new things: staff arrangements, student behavior systems, and instructional strategies. These teachers were unafraid to try new techniques, embrace new opportunities, or participate in new forms of staff development. Such openness to risk-taking

stemmed from the implicit support derived from fellow team members. Frank not only recognized these attitudes, but treasured them as he said,

> We are a very open-minded team . . . if anybody has an idea, or if anybody wants to try something new— no matter how anybody really feels about it deep down (they might express their concerns)— but everybody is willing to try anything! And if someone sees the real benefit of something, we'll give it a try. I really like that and I enjoy that. And then, at the end of the day, if it didn't work out, it didn't work out. No one gets blamed. No one's faulted. It's like, 'All right, we're not doing that next year.' And I think that's good.

This risk-taking attitude was a quality in which Frank took great pleasure. He was motivated by knowing failures were not held against a teacher, that the team stood behind and encouraged members to propose new initiatives.

Risk-taking Attitude – Changes in Programming. This risk-taking attitude took many forms. Kerry described major changes to the delivery of special education services for the next school year. Instead of having all special education students together in one co-taught class, which often constituted the majority of one class' total population, the district was going to distribute students equally among all other sections of a subject area. The special education teacher would consult with the core subject area teacher closely, arranging times when her presence would be most needed. This way, instead of being present in only one section of a class daily, the special education teacher could better target her presence as needed, and be able to see a larger number of different class sections.

As always, these changes had been prompted by a focus on what would promote better student learning. Casually describing this major teaching change she noted, "We've

been talking about, and looking at, what's working and what's not. . . . Kids weren't doing as well as they could have. . . . We've been working together and saying, 'All right, what could we do?' " As Kerry continued to describe this new initiative, there was no anxiety or reluctance evident. She was eager to put a new plan into place and try new methods of assisting students in their learning.

Risk-taking Attitude – Changes in Scheduling. Other teachers described additional changes that demonstrated their open attitude towards taking risks. Sara described a rearrangement of the daily schedule prompted by a desire to decrease off-task behaviors of struggling students. Instead of simply complaining about the existing situation, Sara presented the principal with a solution and persuaded him to allow the change in scheduling for the upcoming school year. As an eighth grade mathematics teacher, Sara had several sections of honors level classes learning high school-level material. She had two remaining sections of non-accelerated eighth grade students who struggled, many of whom were special education students. Both of these classes were scheduled at the end of the day, at time when Sara felt was most difficult for the students to focus and remain attentive to abstract mathematical concepts. She also checked the attendance logs and noticed many of these same students frequently came to school late. Not wanting them to miss instruction, Sara asked if these classes could be scheduled in the middle of the day, at the same time when the other eighth grade math teacher was teaching her non-honors math students. She reflected,

> Now, we have them both the same two blocks right in the middle of the day. . . . It's going to be better for the kids. . . . It's easy for [two math teachers] to, you know, plan the curriculum and work together with the special-ed teacher, who can help us

both. That's what we're doing next year and that's a change I was really happy to see.

Risk-taking Attitude – Changes in Discipline. In another example teachers described a new behavior modification plan that would involve much initial effort on the part of the teachers. New procedures required that the teachers would have to: use certain forms to record infractions, track frequency of behaviors via office support staff, and sacrifice valuable instructional class time at the beginning of the school year to assist with an introduction of this new system to the entire student body. Once again, instead of complaining about the changes, the teachers showed open support for one another and a willingness to experiment with the new system.

Risk-taking Attitude – Changes in Instruction. Sometimes the risk-taking attitudes were revealed in small ways. It was often as simple as a teacher embracing a new technology, or trying a new method of instruction. Katy described how she taught herself to use computer-aided blogging in order to increase content-focused conversations and connections among students. Practically speaking, she found this method had an organizational advantage over traditional pencil and paper tasks that middle school students tended to lose or forget to bring to class. She also discovered that these student comments gave her better insight into their comprehension of the text throughout the unit. She was able to address misconceptions earlier, and differentiate instruction as necessary.

Tim described the use of more technologically advanced methods of collecting data in science labs. As they collaborated, he stated that he and a teammate were "learning on our own. We've ordered books on Lego Robotics, and we've done a lot of research on the SmartBoard and Vernier Probes online to gather more information for activities and lessons."

Both of these teachers had more than a decade of experience each. They taught in a high-achieving middle school. They could have rested on their laurels and continued to use methods of instruction they knew worked. Instead they mastered new technologies and learned new techniques in an effort to create more engaging classroom experiences for students. They took risks. Tim described the larger goal of this new undertaking when he asked himself "What technology can we use to really get the students active, be comfortable with the technology, and help with student achievement?" Even more impressive, a later comment by this same teacher showed his risk-taking attitude as he continued to grow professionally. Despite having recently introduced the use of these new technologies in his classroom, which necessitated the acquisition of new skills on the part of himself and the students, Tim dreamed,

> For me, I definitely want to continue learning with technology. I'm always looking at what is out there and what I can use in the classroom. The kids know the technology— iPads, etc. I think that's what I am looking at down the road in a few years. I'd love to get them [iPads] in here. . . . Every year I try to add something new.

Demonstrating the strength and value teachers placed on this risk-taking attitude, one teacher described how she purposely worked to encourage it within her classes. She described a school-wide push to move away from more traditional methods of instruction such as lecturing; she wanted teachers to become facilitators of learning. Ellen noted, "Students are encouraged to take risks. They are given opportunities for enrichment and encouraged to explore topics within real-world contexts. In this way, students complete authentic assessments that allow them to problem solve and think critically." She

summarized this by noting that the school was "trying to move from more of a *knowing* community to more of a *doing* community."

Risk-taking Attitude – Encouraged in Students. An example of student work that emphasized these ideas could be seen in the eighth grade interdisciplinary Capstone Project. It was a group research project focused on issues facing current American or global communities. Students chose their topic, worked together on research, and made a formal presentation of their findings. The project's joint goals focused on self-directed learning and collaboration skills in an interdisciplinary, real-world context. It allowed students to "explore and address complex contemporary issues, and through the project demonstrate a range of skills that cross disciplines" (2011, student handout).

Ellen also intentionally reinforced these risk-taking attitudes via "positive reinforcement— praise, post cards, and other small items used to celebrate thinking critically and creatively." The entire school was encouraged to send home "positive postcards" to parents regularly. At each monthly faculty meeting a stack of cards was placed next to the printed agenda for teachers to take as needed. Written prompts from administration encouraged teacher to each send at least three per month to students who had performed well academically or civically, or distinguished themselves in some other way. The goal was to engage parents as part of the school community while celebrating a variety of student achievements. During CPT meetings this researcher witnessed team members completing cards together, sharing memories of student deeds worthy of notice, whether it was helping out a peer or scoring a personal best on a recent quiz.

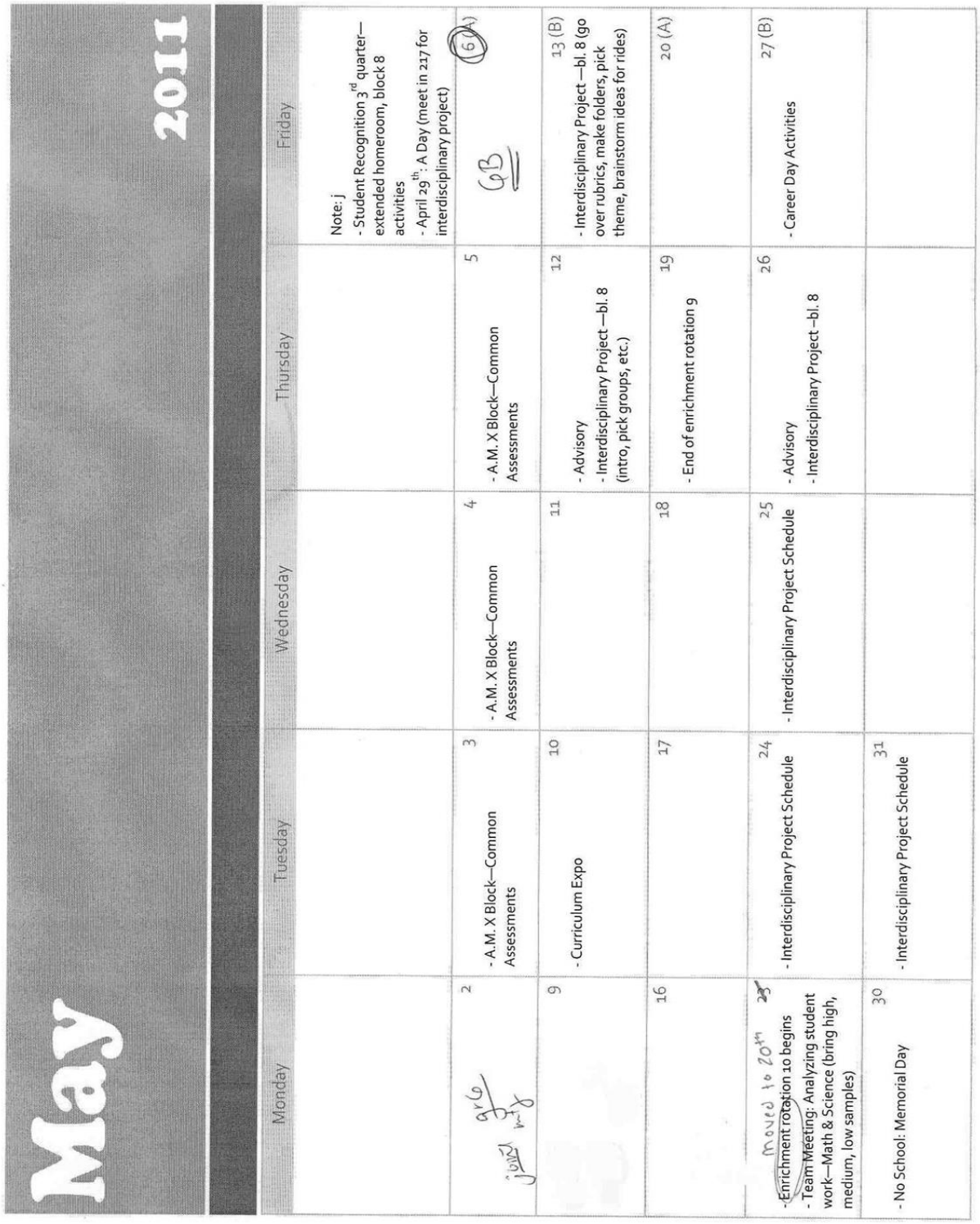
Teacher Teams. At each grade level the teams also reflected similar attitudes in terms of maintaining a flexible mindset, demonstrating supportive behaviors, and displaying

fearlessness in the way they embraced and welcomed change. These attitudes were revealed by the stories the teams told and their descriptions of past events.

Flexible - Academics. On Team 6-2, Doreen discussed how the team's focus on viewing students as individuals was incorporated into a more flexible attitude towards the pace of curriculum and instruction. She said,

> It has to be very flexible; and I think that it needs to be flexible among teachers that may be partners, like Kevin and [me]. . . . If my students don't get something one day and his do; does that mean that he has to stay [wait until my class catches up]? No. Does that mean that I move on without my students understanding? No. You know, there needs to be that flexibility. . . . Our main ideas are always lined up; but day-to-day, there needs to be that flexibility in curriculum. The kids need to get what they need to get.

In sixth grade, all team members taught a section of reading, adhering to common goals and standards. As Doreen noted above, the teachers on the team were aligned with regard to topic and major content constructs, but such unity did not require identical pacing or the use of identical teaching methods. Teachers on these highly effective teams had flexible attitudes and knew that they could make individual adjustments due to student needs, without compromising larger team goals. It also helped to have specific structures in place such as CPT and a common calendar (Figure 4, pg. 170). Each month a calendar was distributed to the team noting due dates for projects, major assessments, blocked periods for interdisciplinary work, assemblies, Advisory meetings, and other team activities. Some days a specific CPT activity was noted, such as the examination of student work using a protocol



May 2011					
Monday	Tuesday	Wednesday	Thursday	Friday	
				Note: j - Student Recognition 3rd quarter—extended homeroom, block 8 activities - April 29th: A Day (meet in 217 for interdisciplinary project)	
2	3 - A.M. X Block—Common Assessments	4 - A.M. X Block—Common Assessments	5 - A.M. X Block—Common Assessments	6 (A)	
9	10 - Curriculum Expo	11	12 - Advisory - Interdisciplinary Project —bl. 8 (intro, pick groups, etc.)	13 (B) - Interdisciplinary Project —bl. 8 (go over rubrics, make folders, pick theme, brainstorm ideas for rides)	
16	17	18	19 - End of enrichment rotation 9	20 (A)	
23 Moved to 20th - Enrichment rotation 10 begins - Team Meeting: Analyzing student work—Math & Science (bring high, medium, low samples)	24 - Interdisciplinary Project Schedule	25 - Interdisciplinary Project Schedule	26 - Advisory - Interdisciplinary Project –bl. 8	27 (B) - Career Day Activities	
30 - No School: Memorial Day	31 - Interdisciplinary Project Schedule				

Figure 2. Common team calendars were distributed to teachers each month to communicate due dates for projects, major assessments, periods blocked for interdisciplinary work, assemblies, advisory meetings, and other team activities.

or interdisciplinary curriculum planning, so team members knew to bring specific materials with them to those meeting.

Flexible - Scheduling. During focus groups, responses by the team members displayed agreement with the information supplied by individual teachers regarding the flexible attitudes they employed to make scheduling changes. On Team 7-2, Pete said, "We've had to be flexible. Without a moment's notice, we have an entire week planned, but then, 'Oh yeah, but we need to have [practice] testing this morning.' So we've had to be very flexible with that as well." This teacher continued to show that such a flexible attitude towards scheduling, prompted by minor inconveniences, led to positive student changes. He described a growth in personal student responsibility that was required to accommodate such changes. Pete noted, "It has worked out well. It makes the student have to be more responsible, in terms of making up with what they have missed." Time and again the teachers and teams displayed flexible attitudes as they saw positive aspects to things that could have been considered barriers to performing their jobs effectively. This further demonstrated how deeply imbedded these attitudes were.

One reason the teams were able to see beyond the frustration of continually making changes was shown by the reasons behind the need for a flexible attitude: their student-centered focus. On Team 7-2, Karen observed, "Whatever makes sense for them [the students] as a whole, you know; we'll all give-and-take and make changes so that whoever or whatever needs to happen for our kids; we make sure that that does happen." This willingness contextualized the need for a flexible attitude as something that helped students. Also interesting to note was the centralized team identity shown by the speaker's choice of pronouns.

A member of Team 7-2, Ed, synthesized these two ideas: the need to maintain a flexible attitude, and the fact that changes were always due to demonstrated student needs. He explained,

> Well, the kids really dictate you, the pace, everything— and what or how far in detail you can cover certain things. You plan on one thing, but then you see that well, they didn't understand what we went over last week. So then you have to change things up constantly. . . . And then you also have your changes in the school schedule, and things like that. . . . So you're constantly changing things. And you kind of, you— sometimes you just have to do some things on the fly.

Flexible - Use of CPT. In a manner similar to the individually interviewed teachers, the team members also reflected a flexible attitude towards the ways they used CPT. On Team 7-1, Ellen noted,

> But as far as the agenda, we're pretty— we try to look at positive reinforcement, our behavior plan that we're doing with the kids, and try to look at that. We try to look at upcoming events for the kids. We also try to look at, how our homework or testing overlap so that we're not all giving the tests the same day. That's something we try to do. . . . It's pretty much… the need. It's also based around what's going on calendar-wise, too.

This CPT fulfilled multiple purposes that often changed, based on the time of year and the immediate needs of teachers and students.

On Team 8-2, Bob confirmed these ideas and flexible attitudes as he said,

> We're changing it all the time, or we decide to do something differently; but that's one of the things we do. We update our calendars when we know that craziness is

> coming. . . . Last week, for example, we had to do formal district testing for reading and writing, and that kind of messed up— We have our [interdisciplinary] Capstone Project for eighth grade, so we incorporated that into the schedule while we were doing it; but you know— those are kind of standard things we do on a weekly basis; and then, anything anybody wants to bring up, anything that pops up. . . . The guidance counselor will come in, or the assistant principal will come in and update us on whatever those things are. And we're always talking about students. That generally guides us.

Even the reasons why changes were made were flexible in nature. It could have been due to an outside demand such as district-mandated testing, or due to a team desire, such as accommodating an interdisciplinary project.

Flexible - Team Tasks. Echoing the sentiments of the individually interviewed teachers, teams revealed flexible attitudes during focus groups with regard to members performing different roles as needed. On Team 7-2, Frank observed,

> The way we do things is, it depends on the task. I don't know if everybody has one role per se. . . . Depending on the task, we all take different roles, you know, so, someone might take lead on one piece of something. But the next time, they might not be the lead, and someone else will be, depending on whatever we're doing or what we need to get done.

Not only did teams use CPT flexibly, the members were also flexible in the types of work they did on behalf of the needs of the team. For example, one month a particular teacher would prompt the group to complete their Positive Postcards. That person would bring the cards to the meetings, along with a student address book, and pass out the materials.

The group members would assist one another with ideas of deeds and achievements students had accomplished in the past month that were worthy of note. Another rotating task was attendance at monthly afterschool meetings with administrators. Each team sent a representative to these meetings to air concerns, voice frustrations, or simply to communicate information to the administrators from the team.

Supportive Attitude. In words as eloquent as those used by the individual teachers, the team members displayed deep and sincere supportive attitudes towards one another. Over and over participants told stories of different ways they gained support from their teams. On Team 7-2, Pete showed appreciation thus, "I feel privileged. . . . and very fortunate to be part of a team that not only gets flexibility; but overall— you could not ask more of a team. They're supportive— great resources, great friends. I feel very fortunate."

This supportive attitude took many forms in practice. Often, it pertained to common goals for students. These teams realized that joint, team responsibilities required a focus on the larger picture. Frank stated,

> Well, we do try to work together and we do try to keep a team aspect when teaching these kids. I think that we all teach our individual subjects, but in the end, we're trying to get these kids to a certain point educationally and everybody takes a little of that responsibility to get them there in the end. If for instance, if I'm doing something in my class and Karen can add to that, despite tests or anything else, she will for the benefit of the kids in the end.

Such curricular support frequently came into play with regard to district initiatives such as a focus on literacy skills across content areas, and the use of a common assessment rubric for all writing tasks, regardless of the subject area.

Teachers on teams showed supportive attitudes as they worked towards common goals. These teachers knew that such supportive attitudes and unity of purpose were not typical in all schools. On Team 7-2, Pete observed, "I know at some middle schools. . . . there's really no collaboration. We're fortunate that not only as a [team] we work together and mesh what we do; but as grade level, we work together and collaborate well." Such sentiments were a refrain repeated by team after team, appreciation for the individual members, as well as for CPT when they collaborated. These teams knew how critical CPT was especially for purposes of communication. On Team 8-1, Kim reflected, "Open communication. . . . We talk about everything— every aspect of the school: the kids, even our own personal schedule, field trips. It's important for us to have the time to think."

Supportive Attitude – Strength in Diversity. Another common attitude was the fact that the team members also felt that the strength of their teams lay in the diversity of personalities, talents, and work styles of the members. Similar to the individual teachers, the focus group responses revealed that such supportive attitudes and unity of purpose resulted from the different personalities and skills present within the team. On Team 6-2, Doreen noted, "I think we have the widest variety of personalities in one [team], and for some reason, they all just mesh together really well." Their varying viewpoints enabled the team to be more empathetic in their responses to challenges.

This was especially meaningful to Doreen. As a new teacher that year to Team 6-2, she had initially been worried about how the team members would bond together as a cohesive unit. She remembered,

> Knowing just a little bit about the people on this cluster, I worried because. . . . It seemed like [they] were so different; but it really— I think it's actually nicer because

it offers a wider variety of perspectives on issues, as opposed to everyone immediately taking the same stance. We hear all the different sides, and we're able to talk about it in a professional way.

Supportive Attitude – Honesty. Another similar supportive attitude pertained to the team's honesty. The members felt innate trust, and in turn, were able to be honest with one another without fearing rejection or retaliation. On Team 6-2, Barbara observed, "We all get along. If there's something that comes up we're really honest with each other."

On Team 7-2, Frank noted that their flexible and supportive attitudes stemmed from such honesty. He stated, "We change a lot, and I think that's because of our personalities. I think that we do work well with each other, and we're very honest with one another." As he began to list examples of different skills contributed by individual teachers, various team members proceeded to jump in, listing the strengths and talents of one another. These ranged from one member's optimistic mindset; she helped maintain a focus on positive student rewards. Another member contributed tangible skills such as keeping the group focused on specific agenda topics within the meeting timeframe; he prompted the group to move the discussion along when it became mired in unproductive complaint sessions or retreaded previously decided resolutions. Karen closed with these thoughts, "We all have a specific strength that we bring [to the team]." Not only did these teachers literally bring a variety of skills to the team, they were aware of these differences and appreciated them. They purposely used these attributes to support one another and further the goals of the group.

Risk-taking Attitude. Such confidence in the supportive attitudes of fellow team members led to an openness to try new things, an attitude that embraced change and risk-

taking. These team members were unfazed by the challenges they faced daily because they were confident in the supportive attitudes of their teammates.

Risk-taking Attitude – Changes in Discipline. On Team 6-1 Linda showed this risk-taking attitude while discussing potential kinks in the new student behavior management system. She explained, "Well, we'll deal with it like we deal with every other day. . . . We'll figure it out." As part of the middle school's move towards embracing a Positive Behavior Intervention and Supports (PBIS) system, many possible new procedures were being discussed for the coming school year. Team representatives on the building PBIS committee attended workshops and discussed new ideas with their team members. Some teams were piloting new methods of reinforcing positive student behaviors and tracking misbehaviors, reflecting on the results together as they devised the best system for their middle school.

***Risk-taking Attitude – Changes in Instruction*.** As always, changes were based on student needs. These teams maintained a continual focus of what would improve teaching and learning. Such goals required continual innovation and experimentation due to the dynamic nature of the age group and the stresses of modern school life. Team 7-1 members reflected on how this risk-taking attitude resulted in a continually evolving curriculum based on the constantly changing needs of students. During this part of the focus group the teachers had a dialogue among themselves which required no prompting from the researcher. The conversation began when Nancy exclaimed that she, "Finds it interesting when people say, 'After your first few years you're in a better place because you have all your lessons done.' But I don't think that's true, 'cause I think you always change them every single year."

Ellen jumped in,

I never feel like, 'Oh, I'll just use everything from last year. You can organize your binders, and you can have everything that you did, but most of it changes in some way. You can have the same foundation, but most of it evolves with the kids and with yourself as a teacher.

Ed interjected, "You constantly . . . come together with what you have and, you know, the other people that you meet with bring in their ideas so—."

Ellen interrupted, "You get a lot from other people—."

Ed, "Yes! That's what I mean."

Ellen, "And [teammates] challenge your thinking sometimes, too."

Unknown Teacher 2, "That's true, too."

Ellen, "Very much agreed."

Risk-taking Attitude – Unafraid to Try New Things. This team recognized that the members challenged one another and changed their ways of thinking and operating. Instead of resenting such input, they viewed it as a helpful means of profiting from the expertise and knowledge of one another. Team 7-2 teachers confirmed these risk-taking attitudes. Frank noted that he enjoyed experimenting, "I like how we try anything. 'Let's do it!' If someone has an idea, or something that needs to be [changed], if they think it's a great idea, we'll try it. Everybody's open and willing to try anything. It's nice."

At a CPT meeting teachers were discussing the idea of bringing a planetarium to the school for a multi-grade interdisciplinary enrichment experience. After the first teacher made the initial suggestion, others quickly joined in planning and trouble-shooting. It required re-arranging schedules to accommodate the extended time students needed inside

the structure, finding a physical location in the building to locate the structure, fund-raising to cover costs, and much work on the part of the entire team before, during, and after the event. Instead of voicing worry or fear about something most team members had never seen or even experienced, the group willingly jumped into the discussion and began to plan with vigor.

Administration. When interviewed, the administrators also displayed a flexible attitude dictated by the mercurial nature of daily demands of a middle school. One assistant principal described it as such, "Every day is different. Even though you have a calendar, you have it all set up, it doesn't matter, because in 10 minutes that could all be shot, or something else comes up." During one CPT meeting a teacher mentioned in frustration that very few students had taken advantage of an opportunity to re-take a midterm they had failed, in order to improve their grade. Immediately the administrator asked for the names of the students, left the room, called all of these students down to the auditorium at the end of the day, whereupon he discussed their actions and the ramifications of this lost opportunity.

As with the other attitudes displayed, these statements regarding the changeable character of middle school were not uttered in frustrated tones. These administrators, like the teachers and teams, were simply making an observation. As the principal noted, "Nothing is ever static." In fact, this appeared to be a quality everyone took pleasure in with regard to working in a middle school setting.

The administrators told many stories that showed they shared the flexible attitudes modeled by their staff. When describing how she moved to an administrative position after spending more than 30 years as a classroom teacher, one assistant principal said bluntly, "It was a huge leap. It was from high school to middle school, from the classroom to administration. A very good leap, but huge. So I said, 'Well, I'll give it a go!' "

Supportive Attitude. The administrators showed alignment with both the teams and the individual teachers with regard to their acknowledgement of a supportive attitude encouraged by team structures. The administrators knew that the teachers derived confidence from the supportive structure of CPT. As one assistant principal succinctly noted, "I think that [CPT] builds a lot of collegiality among the teachers. . . . It's their own little family really; and it also allows for a lot of interdisciplinary planning time." In the previous statement the speaker acknowledged the dual benefits of CPT. This is time to work collaboratively on critical middle school constructs such as interdisciplinary projects, while simultaneously building foundational and intimate relationships within the support of "their own little family."

The principal was also aware of this supportive attitude; it was evident throughout the middle school. He admired what he described as the "Incredible sense of collegiality. . . . When you walk around the building . . . they really like each other; that's a home run! You can't go wrong there." An assistant principal agreed as he voiced admiration for "the collaborative nature of the teams. . . . People really are working together." All three administrators knew such supportive attitudes were not something to be taken for granted. All three had worked in other settings and appreciated the collegiality found within the teams.

Risk-taking Attitude. The attitude most loudly echoed by administrators was risk-taking. All three told story after story of ways in which the teams and teachers seized opportunities to make changes, experiment, and innovate. Teachers suggested different schedule arrangements, new classes, original projects, innovative field trips, and staff

development topics. As always, these changes were prompted by a vision centered on the needs of the students. As the principal described,

> My philosophy is kind of really understanding, and believing, and knowing, what they [adolescents] can do; and doing everything in our power to actualize their own potential. So what that looks like in practice is a constant revision of curriculum in every area. You know we go back to the drawing board continuously . . . nothing is ever static. So we're constantly refining and changing and addressing. . . . There's an authenticity about that, that nothing is a given and nothing is static.

Risk-taking Attitude – Changes in Instruction. Throughout the interview the principal continued to provide examples that demonstrated his belief in these statements. He talked about new afterschool clubs prompted by student interest, an ELA teacher piloting new technology, and the implementation of an entirely new math program driven by a teacher frustrated with "book driven" curriculum. This math teacher was discouraged by the passive learning behaviors fostered by the former text book and wanted to facilitate more active, engaged problem-solving behaviors in students. Although the principal realistically knew such shifts would not produce instantaneous changes in student performance, he sincerely appreciated the progress that resulted. He described the higher quality class format by stating, "She's not hooking every kid through the curriculum, but she's hooking the vast majority; and it's really meaty." The new curriculum was an inquiry-based math system that allowed more student choice and active learning. Units were structured around hands-on projects; student-generated questions guided these investigations. Instead of being inert consumers of pre-digested knowledge churning through practice problems students were now asked to creatively apply new concepts and solve real-world problems.

Risk-taking Attitude – Unafraid to Try New Things. The principal truly valued the risk-taking attitudes he found among the teachers and teams. In his opinion, he observed,

> What makes this staff special is: they say 'yes' to pretty much everything. Even if they don't quite understand it, or are unclear about the expectations. At some point someone will come around asking that courageous question like, 'We're going to do it, but we're not sure what you want. And what does it look like? Can you help us, you know, make sure we get it right?' So the teams have some real core foundational things in place to allow them to be successful.

One of the assistant principal's attributed this risk-taking attitude to the low level of fear of failure among the teachers on the teams. Just like the principal, she did not expect immediate success from a change. She also did not expect victory every time; true innovation requires risk. She further explained, "I attribute [success] to . . . developing a certain amount of trust that people can experiment with things. If they make a mistake it's not the end of the world, their jobs aren't hanging on the line." All of the administrators demonstrated a belief that fear would limit the possibilities for improvement. Similar to their willingness to allow students to make mistakes, to give them second chances, the administrators realized that the teachers also needed space and trust to grow professionally.

The principal relayed a story that showed this risk-taking attitude in a change driven by students and teachers. He described an afterschool club that was started due to student interest in learning to play the guitar. It was led by Kevin, who discussed how such after-school connections allowed for greater success with students during class. Kevin noted, "Every student has potential. And my job and my philosophy are to help them reach their fullest potential. That's really what it's all about. It's all about the students, whether it's in

guitar or the classroom or as people." Witnessing the extremely enthusiastic student response to the club, the school formed a new guitar class as a student elective choice. The principal told this story to demonstrate,

> The ways that teachers are actively trying to adapt the work they do to really seduce kids into doing their very best and being engaged. . . . We ran the class for the first time this year, and had 35 kids . . . who took it every other day for the year. . . . I mean; it was amazing. . . . Absolutely exciting! So doing those kinds of things really serves our collective vision as a middle school— trying to make this a great place for kids.

Throughout any change, the central focus was always kept on students.

In another story the principal described how the "Hands Up" CPT meetings came into being at the middle school. The idea was first suggested by a teacher who had attended a workshop a few years prior. Mr. Dooley remembered,

> She came back and said 'Oh, I just learned about this thing and we really need to look at it and let's try it.' She had kind of a general understanding of the concept, so we drove up to the school that put this thing together, and spent a day with them. We then came back, introduced it to teachers, and I mean— it just went from there. There was zero resistance to introducing this protocol.

This anecdote showed not only the administration's willingness to honor the staff's risk-taking attitude, but the willingness of the other teachers and teams to also extend support as well. Everyone in the middle school community was willing to take risks, to dedicate time and resources to work on a new idea because, as the principal noted, "You know, the theme is the kids." Their child-centered vision did not waver.

Theme Summary. The three attitudes most prominently shown by the teachers and teams were flexibility, supportiveness, and risk-taking. As stories were told and examples given by all data sources, these attitudes were repeatedly displayed as the participants dealt with the challenges of their jobs. A flexible attitude took many forms. It influenced the pacing of curriculum, the schedule itself, what work was accomplished during CPT and who took on those tasks. A flexible attitude among the teachers and teams influenced reactions to the changes, interruptions, and unanticipated events that occurred so frequently in middle school.

The supportive attitude described by the participants also took many forms. It eased the transition of new team members, welcomed the diverse talents of various team members, provided a sounding board to a struggling teacher, and created a climate of trust where team members could be honest with one another. These supportive attitudes influenced instruction; teammates sacrificed class time to further jointly held instructional goals, worked together to master new technologies, or simply assisted with routine tasks.

Both the supportive and flexible attitudes served to inform the last major team attitude, risk-taking. Because these teachers were confident in the support of their team, fellow teachers gained not only physical and material assistance with implementation of new ideas, but were secure in the knowledge that any lack of success would not result in blame or shame. These teachers clearly displayed risk-taking attitudes that influenced the ways in which they openly embraced changes pertaining to scheduling, delivery of services, behavior modification plans, choice of curriculum, use of technology, instructional methods, clubs, and classes.

On all three teams, attitudes of flexibility, supportiveness, and risk-taking influenced every aspect of these teachers' work. These attitudes overlapped in theory and execution; it was often difficult to separate one from another as the data were analyzed. Interestingly, they seemed to inspire growth and sustain one another. The teachers and teams continually expressed an enjoyment of the expression and exercise of these attitudes. The execution of work and tasks influenced by these three attitudes provided energy to propel their daily work.

Beliefs Pertaining to Adolescence

Individual Teachers. Responses to interview and extended response questions were completed with a resounding awareness of the developmental aspects unique to adolescence. Whether the teacher discussed intellectual, social, physiological, or emotional concerns, students were always viewed through a perspective highly cognizant of the special needs specific to this age group. When participants discussed how they planned curriculum, chose instructional methods, or assessed student work, this developmental perspective influenced all aspects of their planning and teaching.

Adolescence Needs Influence Instruction. One teacher discussed this adolescent framework in terms of class work. She felt it would be futile to simply lecture, knowing well that these students preferred to be active in ways such as participating in discussions and having opportunities to share views with peers. As Katy reflected, "I do a lot of positive group partnerships to take into account the social needs of the kids and their need to want to connect with each other." She saw group work as a natural way to capitalize on the social orientation of adolescents, a means of encouraging them to engage more deeply with the concepts being taught.

Many respondents advocated a variety of instructional and grouping methods in order to best address the diverse needs of middle school learners. This concept is clear in Michelle's remark, "Middle schoolers need a variety of styles and techniques— visual, auditory, tactile, kinesthetic, large group, small group, individual." Supporting this view, and the importance of a well-trained professional to orchestrate it all, Bob recommended, "Hands-on, inquiry learning. Middle school students need to move, interact with each other, make connections for themselves— all with the proper facilitation of a focused teacher."

Other teachers were also influenced by the adolescent perspective, taking the idea even further. Many of the participants discussed the importance of helping students become aware of the world beyond the classroom. Teachers talked about helping to prepare their students for challenges they would face in college and the workplace, using their curriculum as a vehicle. Frank reflected on this,

> I also try to do a lot of group work. I think that's really, really important for the kids; not only to just to be able to understand concepts and the curriculum and hone their skills. I think that [working with others] is a skill in itself. I think the more they can do that, the better they're going to be later on in life. I think life's about working in groups and working in pairs and working with other people.

When discussing similar ideas, Kevin noted that such activities, while welcome to students, were also challenging. It was difficult for some students to get along with other group members while working on a common task. He observed,

> We all know working in groups is not the easiest task, but it is a skill set that we all obviously know is going to be important and valuable to the kids later in their lives;

> so we kind of 'break them in' here. . . . That's a whole other education about the world and the way the world works.

Kevin viewed his classroom as a safe environment that he could control, a means of providing students with opportunities to learn and experiment with valuable skills such as how to listen, how to collaborate, and how to lead.

Adolescents Are Dynamic. As they described the "typical" adolescent student, time and time again the teachers laughed at the idea of such a finite concept. They all agreed: there are no typical middle school students. Many words were used: impulsive, honest, moody, emotional, unpredictable, and energetic. Bob sagely observed, "There is no typical MS student. She or he is both mature and immature, academically proficient and very needy, socially inept and wise-beyond-their-years all rolled into, sometimes, the same student."

Other teachers supported this view with regard to the dynamism of the adolescent population. As Frank said, "You never know what you're going to get. They're very emotional. . . . They don't hide much. What they demonstrate to you is exactly the way they're feeling." Teachers dealt with such a wide range of needs by focusing on the whole child. These teachers did not view their professional responsibilities in terms of content to be relayed or facts to be tested. They viewed their job as much more holistic; they repeatedly underscored the importance of addressing the social and emotional needs of students. Bob viewed addressing the developmental challenges as an intrinsic part of the work when he said, "There are teachers who think we're just here to teach a subject or content area, and then there are those who think we're responsible for their overall well-being. I'm one of those. I think we're responsible for their overall well-being."

Other teachers confirmed these aspirations, and took them to even deeper levels. Frank reflected,

> It's not just about teaching them reading, writing, math, social studies, and things like that. I feel like you're trying to make them better people in the end. I think that at the end of the day, are they going to remember what they did on June 6th of seventh grade? No. I think about at the end of the year, or at the end of even their whole educational process: did you contribute to them becoming better people and better students? And that's not even just academically, but emotionally and socially— all aspects of their life.

The Importance of Personal Relationships. An important aspect of this shared focus on adolescent needs, what allowed teachers to deal effectively with the hyper-emotionalism and high-energy exhibited by this age group, was the importance they placed on forming authentic relationships with students. The teachers noted that when they knew a student personally they were able to better understand and accept certain behaviors. For example, the seventh grade participates in a 5-day sleep-away field trip. Traveling to a wilderness facility, activities mostly occur outside, emphasizing science concepts and team-building activities. Teachers and students spent time together for an entire week outside of the traditional classroom. It is via team activities such as these that such relationships are strengthened. When describing her teammates Kerry observed,

> They really take the time to get to know all the kids . . . They ask, 'What can we do? What should we do? How can we make this different? How can we make this better? How can we make it so that the kids don't feel overwhelmed?' They're really caring. I don't know how else to put it basically. They just really want to make sure

> that everyone is doing well, and they're giving each student everything that they need to succeed.

Teachers discussed how these relationships were a pathway to better assisting struggling students. Kevin reminisced about how such a connection helped a student succeed beyond either of their expectations. This was a student who had been failing his class for the year. The guidance counselor and the administrator had been involved, but it was not until the student joined Kevin's guitar club that he began to complete homework assignments and focus more in class. Kevin told the story,

> I'm always proudest of the students who resisted and finally found a way to come through. So any time there's a personal [student] success story, I'm proudest of those. We had one student who struggled mightily . . . all year. On the district assessment in the spring he happened to be in my homeroom for writing. He sat there for the first 15 minutes, just literally— panicked, [writing absolutely nothing]. So, I'm not allowed to help them, but I did go over to him and encourage him. I just said to him three different times in the course of five minutes, 'Write about what you know.' In that voice, just, 'Write about what you know.' The [writing prompt] question was: make a recommendation to the principal about a food item that should be added to the lunch menu. You know, it's 8:30 in the morning, they're barely awake. So after I kept walking around, and . . . I waited and about three minutes later I saw his pen, and he just started writing. . . . Now I don't correct the [assessments], they're corrected by the department. He scored a perfect score. He wrote all about Mexico— that is where he's from, and the Mexican cuisine. It was amazing. So he

> had a break through moment because he understood what I said, 'Write about what you know.' So those are the kind of moments that I'm most proud.

Through their stories teachers showed how more personalized interactions with students gave the children confidence to admit when they were struggling, to take a risk applying a newly learned skill, or simply to ask for more help. Adolescent students are afraid of rejection, from adults as well as peers. Sara aptly noted, "You really just need to get to know the kids, and really know their stories. . . . You've got to teach the individual student, not the masses."

Katy described how interacting with students outside of the regular class period gave her better knowledge regarding academic struggles. She noted, "I do a lot during lunch, or after school. . . . I find out which kids need help when I start talking to them." It was through such personal conversations, one-on-one, that students take a risk and reveal their misconceptions. By using personal insight into students' lives teachers were able to "see" the individual within the larger group that daily filled their classrooms.

The typical teacher in this middle school building dealt with over 100 different students every day, spread over five separate class periods. Forming personal relationships was the best method of differentiating among them. It was often the best way to cope with the range of intellectual, social, and emotional extremes these students presented. Sue concluded,

> We are involved in helping the child grow as an individual, so we care about the whole child. Not just so much academic, but socially as well. I think that's a big part of it. I think making that connection with them not only as a teacher, but letting the kids know that you care about them as a person. That's an important piece.

According to Michelle, these personal relationships were indispensible, "Middle schoolers need to know that we understand them."

Two of the teachers who were interviewed noted that they were eligible for retirement, but both chose to continue working in the school because of the unique and enjoyable characteristics of the adolescent age group. Bob and Michelle, teachers of social studies and ELA, respectively, said that they enjoyed their work, the students, and the challenge of providing relevant curriculum while focusing on the other unique needs presented by the age level. These teachers enjoyed watching students grow and change as they learned throughout the year. As Bob observed,

> It's a great age group. . . . There's actually a metamorphosis going on. . . . The kids go through a growth process of their own within a year that's actually pretty amazing. . . . Any aspect you want to talk about: emotional, physical, academic, ability, maturity, whatever— they change! And the energy level: it will kill you, or make you live forever. I love it! I love the energy level.

Teacher Teams. When participating in the focus groups, the teachers also expressed a deep awareness and enjoyment of the unique developmental aspects of adolescence. Echoing the individual teacher voices, the team members were equally articulate in their descriptions of middle school students as chatty, effervescent, mercurial, mature, immature, social, shy, honest, manipulative, sensitive, caring, cruel, insecure, and excitable.

Adolescents Are Dynamic. As a member of Team 7-1, Ed observed, "They really wear their thoughts and their emotions on [the] outside, and I like that. It's just a very exciting age. They're very passionate." The focus group members expressed a variety of student terms and traits, applying to an equally wide range of contexts, that mirrored those

used by the individual teachers. A teacher from Team 8-2 summed up this perspective as the need to "understand that these kids come with a unique set of issues" (Unknown Female 1). These developmental aspects were always on the team members' minds and influenced their work with the children.

The Whole Child. The teachers also viewed students through a wider lens, not simply an academic perspective. They felt a need to address the social and emotional needs of these adolescents as well. The team members perceived that an expanded focus was key to success inside and outside of the classroom. They felt that an exclusive focus on one goal would come at the expense of others. Sara (Team 8-2) noted,

> Where a lot of teachers fall down is that they think it's all about their content; they're so passionate about their content that they forget about the child. At the middle school level I think it's mostly about the child . . . academics are important, but it's really more than about getting that child to understand the content, more than delivering the content. . . . I think it's more about the whole kid and less about— that sounds awful— less about the academics and more about the children.

These views were not unique to any one grade level. Teachers at all three grade levels placed a value on "teaching the kids holistically . . . everybody sees that. It's about what does the kid need in the end, and we'll do it." (Team 7-2, Frank) This focus on the whole child and the multitude of developmental needs of each student was viewed as an integral philosophy that influenced the work of the teams. Group comments reflected a common perspective regarding the importance of keeping the student as the central focus, not the academic content. For example, as part of the eighth grade Capstone Project final assessment, students were required to complete an individual reflection on their work. This

portion of the project was worth 20 points, the same value given to the research paper itself, and to the oral presentation. These teachers valued students' ability to reflect on their own work, assess personal strengths and weaknesses, and set future goals as highly as they did students' ability to master specific content and skills. Through such work, the team members demonstrated to students the importance of larger ideas and transferable skills, concepts that transcended their individual subject areas.

This vision allowed team members to more easily make adjustments to curriculum or schedules based on the needs of the students and the team. When the primary objective was the success of the whole child, not simply mastering a specific content area, teachers were more flexible and open-minded. As Karen (Team 7-2) noted, "Whatever makes sense for students as a whole, we'll all give and take and make changes so that whatever needs to happen for our kids— we make sure that that does happen."

The Importance of Personal Relationships. The teams prided themselves on their relationships with students and their abilities to meet a wide range of needs. Similar to the views expressed by individual teachers during the interviews, the teams also valued personal relationships with the children as a means of facilitating student success in and out of the classroom. Teams emphasized the important fact that "the kids have to know that you care about them" (Team 7-2, Kerry). Students needed to know that teachers were personally invested in their success. If that was present, "I think students can just tell— I think they know" (Team 7-2, Karen). These teams members believed that if students perceived a teacher cared about them personally, students would be more inspired to work harder.

Many teachers described the extreme emotional neediness of the age level, the continual need for approval adolescents sought from peers and adults. The team members

thought this presented a unique opportunity to motivate students, as Doreen explained, "Kids want to look cool in the eyes of their peers, but they also want to impress their teacher at the same time . . . and that's very unique." Many teachers described this as a "need to please." A teacher on Team 7-1 (Unknown Male 1) described this phenomenon when he said, "The big key is that they actually have an interest in learning at this age . . . and they want to please." They felt that the adolescent desire to gain teacher approval provided a built-in lever teachers could, and should, utilize to an educational advantage. Team structures such as the Positive Postcards (Figure 5, pg. 195) capitalized on these student feelings by overtly showing students how satisfied teachers were with their efforts, academically and civically. Teachers used these methods to further motivate students in the classroom.

Adolescence Needs Influence Instruction. In a fashion similar to the individually interviewed participants, the focus group members also felt that it was important to capitalize on the adolescent penchant for socializing, and used this desire in their classrooms to create more effective learning environments. On Team 7-1, Ed described some techniques he used to keep the students engaged. He noted, "Get them up, get them moving. Do a lot in groups. Try to make every day different. Spend as little time sitting in seats as possible— virtually no lecture." Again, the teachers capitalized on an adolescent trait, in this case the propensity to move frequently, to their educational and instructional advantage.

Also analogous to the beliefs expressed by individual participants, team members viewed group work in the classroom as a means of imparting important life skills. They felt a duty to help prepare students for future challenges beyond individual classroom goals. As described by Ellen on Team 7-1, "It's about moving towards 21st Century skills, engaging kids in group activities, discussions, modeling the workplace, working in teams, trying to

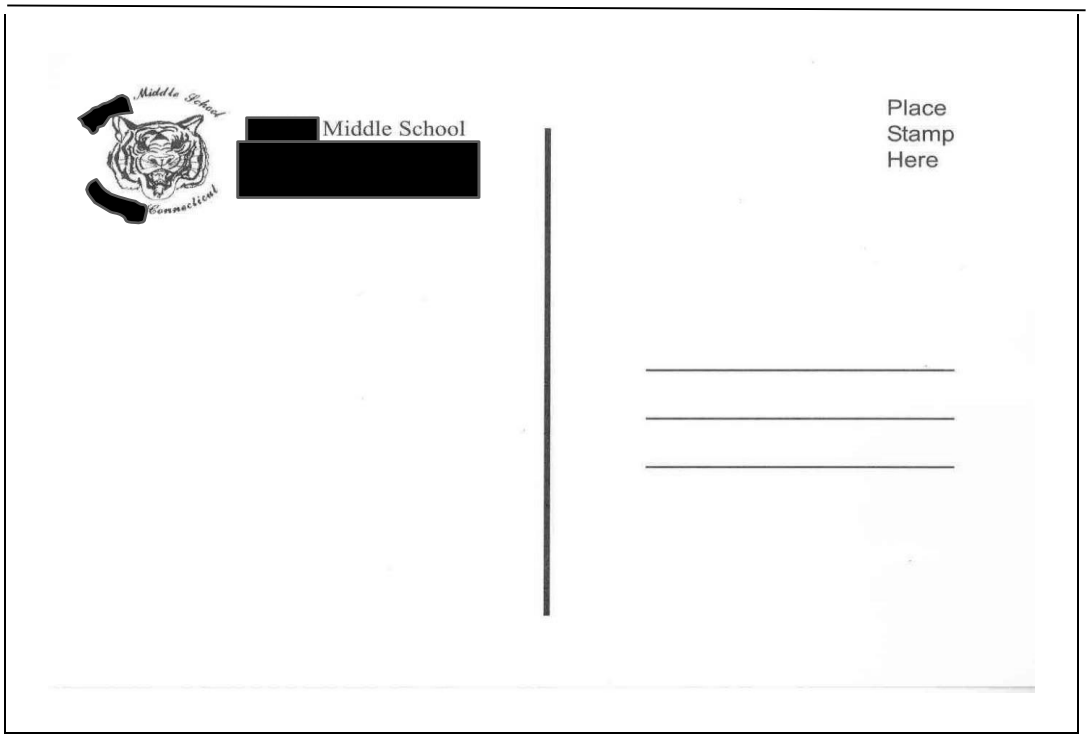


Figure 5. Positive parent post cards were sent from the team to commend specific, individual student achievements.

teach skills that we know they'll need when they get out there, helping them become productive citizens." Such comments showed that students were again being seen within a larger context. The goal of instruction was not simply that students mastered specific content, but that they acquired skills useful in a variety of contexts. On Team 6-2 Doreen gave an example of such skills, "Self-advocating is a big piece of it too. We need to teach them to be pro-active."

During one interesting conversation, Team 7-1 members reflected on the purposeful efforts they had undertaken to help students learn to work with a wider variety of peers. This was a goal of not just one individual teacher, but reflected the desire of the team. These teachers knew that they needed to literally instruct students in, "how to have good conversations. We teach a lot of role-playing and modeling, talking about how-to conversations— how to work with groups and so forth . . . is a big focus for us." Without pause, another team member chimed in,

> We've been working on that all year. The kids tended to always gravitate towards the kids they are friendly with, that they know well. We moved the groups, moved their seats around, encouraged them to integrate with each other— just tried to have them grow. We've finally gotten through to them. . . . Now they're really actively working together and it's not— they're not just working with kids that they typically work with. It's been nice to see that behavior . . . . They actively communicate, and it's working really well. . . . It's helped them to grow.

The pride this teacher described showed the value the team placed on adolescent development. Their goal was that without direct prompting from teachers, students would

continue to engage in similar behaviors that the team had purposefully encouraged and modeled. It was a specific and higher level of internalization the teachers sought.

Administration. The administration shared the teachers' beliefs pertaining to the developmental needs of adolescent students. This was reflected by comments they made pertaining to instructional methods, student behavior, and parent interactions. As one assistant principal observed, "It's a critical time [adolescence] . . . because of the social changes that kids go through, the emotional changes, the physical changes." Further comments reflected a belief that middle school presented a unique opportunity to make a profound difference in the academic and emotional lives of students.

Comparable to the teachers and teams, the administrators also viewed many typical adolescent characteristics as a positive aspect of their work. They enjoyed the variety and extremes the children presented. The principal showed an awareness of "what the needs are— socially, emotionally, academically— of kids in middle school. What makes it exciting is . . . you don't know what you're going to get on any given day. Kids truly, physiologically, change overnight. It's exciting!"

The administrators also perceived that these intense adolescent characteristics necessitated an expanded focus on the whole child. There could be no academic success if social and emotional issues were ignored. One assistant principal noted,

> I think that in the middle school it's really about approaching the whole child. And while academics are important, there's an awful lot of stress on helping students find their sense of themselves and develop some independence and responsibility. Teaching them not only subject matter, but how to approach the world. . . . That's really kind of the core of middle school values.

The focus was not simply on academic content, but on how to acquire skills transferable to future settings and situations.

The administrators also viewed typical adolescent traits as something to be capitalized upon when structuring effective lessons. One assistant principal noted the importance of providing opportunities for students to learn in cooperative groups as a means of creating more active learning situations for students who crave use of "different modalities." The principal noted bluntly, "Middle school kids are social animals; really good teachers design as many possible opportunities for students to work collaboratively in meaningful ways." The administrators drew this important distinction: the classroom interactions must have meaning and purpose. It was not enough to simply have students work with one another. There must be some value to the task as well. Using these types of activities in the classroom demanded a more thoughtful type of curricular planning. It required a more skilled instructor, a "really good teacher" (Principal).

Another teacher belief echoed by the administration was their shared perception regarding the desire middle school students have to please others, and the importance of using this characteristic to improve student learning. The principal noted, "Middle school students want to be loved and accepted, and they want to be liked by their teachers and their peers." He further tied this to the importance of forming personal, authentic relationships with students. Such actions fulfilled the student desire to connect with adults and laid a foundation for classroom triumphs. When asked what is successful middle school teaching, one administrator responded,

> Here's what I absolutely believe about teaching, and I've seen it in action— the core foundation is so much less than what the teacher knows, than the teacher's ability to

connect with kids. That is it absolutely. . . . this innate ability and desire to really know kids; that is the beginning point for any good teaching at the middle school level. Kids have to trust their teachers.

Theme Summary. Throughout the entire data analysis one prominent theme emerged that was not an attitude, but did influence teachers and teams in many facets of their work: a belief regarding the unique needs and characteristics of adolescents. This pertained to the distinctive physical, emotional, and intellectual development of middle school students. Teachers, teams, and administrators discussed the extreme ranges of development with which they dealt each day; in fact, they appeared to enjoy the diversity and dynamic nature of their students.

This belief regarding adolescence influenced much of their work. When choosing instructional techniques teachers were influenced by the adolescent need to be active and socialize. Teachers acknowledged the adolescent need for teacher approval and worked to form closer, more personal relationships as a means of motivating struggling students. The teachers realized adolescent students were struggling with the higher expectations of middle school curriculum and the impending pressures of high school. They worked to provide students with opportunities to acquire skills that would facilitate greater success in college and the workplace: collaboration skills, communication skills, and technology skills. The teachers utilized the classic adolescent search for identity to create relevant links in their curriculum to student experiences and interests. The understanding about adolescent characteristics influenced every part of the teachers' work. It allowed them to focus on the entire child, not simply on one content area.

Summary

The first research question guiding this study explored beliefs and attitudes about education of middle school interdisciplinary team members who shared CPT. The second research question probed what influenced these constructs. The analysis presented in this Chapter identified and examined prominent attitudes revealed by the data, attitudes that showed empathy towards the students, flexibility, support of one another, and a willingness to embrace risk-taking. Further analysis revealed that these attitudes were deeply influenced by a pervasive belief about the unique characteristics of adolescent learners; views shared by all teachers, teams, and administrators interviewed.

The empathetic attitudes teachers and teams displayed towards students influenced professional choices they made in and out of the classroom. Their ability to view the world from the students' perspective affected what tasks they completed, and the ways in which this work was done. In interviews, focus groups, and open-ended survey data teachers and teams continually referenced the many challenges faced by their adolescent students. They were clearly able to understand the feelings and thoughts of their students. These adolescent challenges ranged from the difficulty of making new friends in a much larger school setting, learning how to study effectively for exams, or simply figuring out how to keep a binder organized with materials from so many different classes.

While such empathetic attitudes did not alleviate adolescent challenges, the teachers' ability to take on the students' point-of-view allowed them to move quickly to a productive, problem-solving stance. As Tim described, these teachers knew that it was important,

> Not [to] take things personally, because these kids are really— it is a tough age. The kids, they have a lot of stuff going on. The kids are coming from different

backgrounds; one day they're having a good day and the next day something might have happened at home and they lash out. You just can't take those things personally. You need to understand that, and kind of see through that, and see what can you do to help them.

On the six teams, attitudes of flexibility, supportiveness, and risk-taking also influenced the daily work of the teachers and teams. These attitudes intertwined, sustaining one another as the teachers embraced new challenges and problem-solved together. A flexible mindset, confident in the support of fellow team members, led teachers to openly seize new opportunities and take risks. The teachers repeatedly described how CPT provided the fertile environment, literally and figuratively, that encouraged and nurtured these attitudes. CPT provided a guaranteed, regular meeting time, as well as an atmosphere of trust and mutual respect. As Michelle noted, "The members of my team and I share respect, admiration— even affection for one another. We help one another always and in every way we can. We enjoy one another's company— we think alike."

The final theme that emerged was a belief regarding the unique needs of adolescents. This theme often influenced the other attitudes and the impact these attitudes had upon the teachers' work. The ability to take adolescent characteristics into account was a part of the empathy the teacher's displayed towards students, as well as a reason behind their flexible mindset. Adolescent needs, physical and intellectual, dictated continual changes in curriculum and instruction. Such changes demanded risk-taking in the form of rearranging schedules, choosing a new text, or creating new student groups. As Cheryl observed, "The typical middle school student is trying to navigate the space between child and young adult. .

. . They like to think of themselves as being grown up, but still require much support both emotionally and academically."

The implications with regard to these findings in response to the two research questions will be discussed further in Chapter Five. This Chapter closes with a quote from Kevin that accurately shows the intersection between the team attitudes and their larger focus on educating the adolescent child,

> Honestly, I'm proud every day, because every day there's another opportunity. . . . I'm proud, not only individually, but as a team. We are all very dedicated to students and their success. I'm glad to be able to say that without any reservations. That's why we're in this work in the first place.

CHAPTER FIVE: SUMMARY AND CONCLUSIONS

Chapter Five provides an interpretation of the data analysis as it specifically pertains to this study's two main research questions. This Chapter begins with a summary of the study and the major findings. Next, each research question is described. Chapter Five closes with a section examining limitations that affected this study, as well as a section summarizing final thoughts pertaining to the work.

The purpose of this study was to investigate the attitudes and beliefs of teachers on teams with CPT at a highly effective middle school. Previous quantitative research had discovered such structures positively affect a variety of student and teacher measures (McEwin & Greene, 2010; Merten & Flowers, 2004; Warren & Payne, 1997). This study sought to delve more deeply behind this foundational research using multiple qualitative methodologies. The major findings resulted from analyses of data collected via open-ended surveys, interviews, and focus groups.

The first two sections of Chapter Five discuss the implications of this study's findings delineated according to the two main research questions. With regard to each major theme, the implications of these findings are discussed within the context of literature supporting the work. Implications for educators follow, including ways to use the study's findings to improve the work of pre-service teachers, practicing teachers, and administrators. These applications are practical, as well as theoretical in nature. Next, suggestions are offered regarding potential areas of interest for future researchers who may want to conduct investigations as a means of capitalizing upon the results of this study. Research findings often lead to new questions, reveal unexpected variables, or illuminate topics worth further exploration.

The third section of Chapter Five discusses limitations that impacted this study, as well as actions undertaken to ameliorate their effects. While it is impossible to adequately control for all known variables, good research identifies and discusses sources of variation and potential bias that may be encountered as data are collected and analyzed. In closing the Chapter, the fourth section offers final thoughts regarding this study in general, and the findings in particular.

Summary of Study and Findings

Recent research pertaining to the efficacy of the middle school model (Mertens, Flowers, Anfara, & Caskey, 2010) has noted significant positive relationships between teams with CPT and several student factors including multiple measures of learning, such as achievement; perception of student/teacher relationships; self-concept; satisfaction with school; commitment to classwork; reaction to teachers; positive adjustment; self-esteem; perceptions of school climate; academic efficacy; and well-being. Student participants also exhibited lower levels of depression and fewer behavior problems than students in schools with similar demographics, but whose teachers did not have CPT. Research pertaining to these schools also showed positive effects on teachers in such areas as perceptions of work environment, personal teacher efficacy, teacher collegiality, professionalism in curriculum development, job satisfaction, and increased positive interactions between teachers (Flowers, Mertens, & Mulhall, 2000a).

Mertens, et al. (2010) noted gaps in current research on middle school teams with CPT regarding knowledge and skills of the teachers, and quality of team interactions. Given the paucity of qualitative research investigating the personal characteristics and operating

styles of teams with CPT at highly effective schools, this research purposefully delved more deeply into these topics.

Data were collected pertaining to the team concept, effective middle level curriculum and teaching methodologies, student characteristics, school structures (physical and organizational), the role of administration and parents, and the inter-related nature of the team's work habits and personalities. Additional areas of interest were how and in what ways team members interacted with one another, how meetings were conducted, how team goals were set and measured, how teams functioned, and how CPT was typically used.

Research questions that guided this study were as follows:

1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Data were collected at a middle school judged to be highly effective by an outside team of evaluators using multiple qualitative and quantitative criteria (Appendix A). The participants, therefore, were purposefully selected. Teacher participants from grades six through eight were members of teams sharing a common set of students and CPT. Participants completed an open-ended survey (Appendix B), as well as a general demographic survey (Appendix C). Six separate teams, from three different grade levels, participated in focus groups. Semi-structured interviews were conducted with nine individual team members, including the longest serving and newest members of each team, in order to sample the largest range of experience. Lastly, individual interviews were conducted with building administrators.

A multiple case study, qualitative research design was utilized (Creswell, 2007). The unit of measurement was individual teachers as distinct cases, as well as the collective teams themselves. As a means of using purposeful maximal sampling (Creswell, 2007), teams were members of a highly effective middle school, as identified by outside experts using multiple criteria and site-visits (NELMS, 2010).

The use of open-ended surveys, focus groups, and individual interviews was chosen to gather the widest and deepest data possible. Crabtree et al. (1993), noted the unique qualities of each data collection method and recommended special care when choosing methodologies to fit specific research questions and project goals. In this instance, due to the primacy of the construct of teams, open-ended surveys provided initial information; focus groups afforded the opportunity to witness a team's unique chemistry and style of operation, while individual interviews offered the occasion to pursue individual topics in more depth.

A qualitative design was employed utilizing inductive methodology to address the research questions (Corbin & Strauss, 2008). Descriptive codes were created (Bogden & Biklen, 2007); emerging themes, based upon these codes, were identified. Triangulation was used as a method of validating themes, as well as to show the depth and range of perspectives pertaining to specific constructs (Fine, Weis, Weseen, & Wong, 2000). Triangulation took the form of both data source and data type. Data were collected from multiple participants (individual team members), and a variety of staff members (administrators and teachers). The researcher also utilized different written (text from open-ended surveys, and documents) and oral response formats (focus groups and individual interviews) in data collection. Artifacts were used to further understand topics raised by participants, to gain a more full vision of how teams carried out their vision in their daily work.

Research Question One

What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Findings and Implications Pertaining to Empathetic Attitudes

Data analysis revealed a pronounced attitude of empathy toward students. These overt, compassionate attitudes of teachers and team members were expressed with regard to the myriad of challenges faced by their students. This influenced instructional methods teachers chose, the enforcement of school rules, the pace of curriculum, and the ways in which many other professional tasks were executed. Teachers discussed the unique challenges their students faced: the difficult transition to middle school routines and expectations, unstable home situations, peer pressures, puberty, and future stresses of college or career choices.

Research has repeatedly underscored the critical role such empathy plays in successful classrooms and schools. With regard to quality in teaching, Ferstermacher and Richardson (2005) described the importance of the "moral acts of teaching," which included such traits as compassion and respect. These researchers described the need to acknowledge the "social surround" involved in successful teaching and learning, the role played by outside variables influencing student motivation to learn. Successful teachers build personalized relationships with students in order to better understand individual student needs and struggles. The participants in this research study repeatedly displayed this willingness. Their empathetic attitudes led to a deeper understanding of their students. They easily named and identified with the challenges students faced. These teachers were willing to help students overcome barriers and succeed, both in and outside of the classroom.

Other researchers supported this view with regard to the intrinsic role of empathy. In a discussion of effective teaching, Broudy (1972) discussed the importance of teachers being "warm, sensitive, [and] concerned" (p. 61). Such traits describe an empathetic teacher concerned with and alert to students' emotional well-being, as well as their academic achievement. The teachers involved in this study displayed such concern when they discussed a range of professional duties from creating effective lessons to establishing classroom routines. Due to these empathetic attitudes, teachers and teams provided more personalized educational experiences, meeting the needs of a wider variety of students.

Implications for Educators Pertaining to Empathetic Attitudes

There are many ways these findings regarding teachers' empathetic attitudes could be used to influence the daily work of middle school professionals. First, it would be important to discuss the valuable role of empathy with pre-service teachers. Although middle school experts (Jackson & Davis, 2000) recommended college courses that focus on a specific content area, instructional knowledge, aspects of adolescent development, and even knowledge of how teams work, there was no mention of the role empathy plays. Of more concern was the fact that most middle school teachers did not student teach in a middle school setting, and the majority of middle school teachers have not been specifically trained in middle school curriculum or organization (Scales & McEwin, 1994). This researcher recommends that part of all pre-service teacher-training, regardless of grade level or content area, include a focus on the role empathy plays in successful classrooms. It would not be sufficient to include a strand focusing on the topic only in middle school teacher preparation programs, since the majority of middle school teachers receive little specialized preparation (Scales & McEwin, 1994).

It would also be useful for middle school administrators, when interviewing potential teaching candidates, to include some questions aimed at revealing a teacher's empathetic attitudes. In the course of this research study these views emerged most often when teachers and team members described what a middle school student was like and what effective middle school collaboration resembled. If administrators were aware of how empathy displays itself through stories and speech, they may be able to identify candidates possessing these attitudes.

Implications for Future Research Pertaining to Empathetic Attitudes

This research study revealed attitudes of empathy towards students held by teachers on teams with CPT at highly effective middle schools. Future research could explore how such an attitude is encouraged and assessed in pre-service teachers. As one aspect of their Program Standards, the National Council for Accreditation of Teacher Education (NCATE) emphasized *professional dispositions* (National Council for Accreditation of Teacher Education, 2012). The group further refined the definition of this construct by focusing on the assessment of two specific dispositions: *fairness* and the *belief that all students can learn*. Future research could explore the ways colleges have devised to assess such attributes in pre-service teachers, and how these methods may intersect or overlap with the observation of empathetic behaviors as described by participants in this study.

Future work could also focus on the exploration of how the construct of empathy varies. Researchers could explore such variables as time of year, amount of teacher experience, gender, class size, team size, age, and grade level. There are many relevant variables to be parsed. While some educational research has been conducted using instruments that measure the construct (Williams, 2010), at least one instrument used in such

studies was created and piloted for use in the medical field (Donius, 1994). Future research could also focus on fine-tuning and extending the use of this instrument in educational environments.

Findings and Implications Pertaining to Team Attitudes (Flexibility, Support, Risk-taking)

There were three dominant attitudes displayed by participants as shown by a variety of data-collection methods. Flexibility pertained to a teacher's ability to quickly make and positively embrace changes, supportive referred to guidance and assistance provided by fellow teammates, and risk-taking referred to a willingness to experiment with new ideas and programs.

Research has shown that flexibility is an invaluable quality found in successful middle school teachers. Chamberlain (2003) noted that while many experts promote the need for flexibility because of the wide range of student abilities and interests found in classrooms, flexibility is also necessary because of the wide variety of socioeconomic or cultural differences represented by students. Participants in this study spoke of such needs when they told stories of immigrant students struggling with gaps in background knowledge, or students who came from single-parent households that could not afford fieldtrip fees.

Chamberlain (2003) also noted the need for flexibility due to the fact that in middle schools, needs of students and teachers "change day-to-day and often minute-to-minute" (p. 131). These findings echoed the words of participants from this study. No matter what grade level, administrators and classroom teachers, all participants verbalized an awareness regarding the dynamic nature of life in a middle school. This influenced such activities as the pacing of curriculum, arrangement of schedules, and use of CPT. A flexible attitude

among teachers and team members influenced reactions to the changes, interruptions, and unanticipated events that occurred so frequently at the middle school level. As Chamberlain observed, "The challenge of flexibility may indeed be the keystone of a learning environment that meets the needs of young adolescents" (p. 131).

The supportive attitude described by this study's participants also took many tangible forms. It eased the transition of new team members, welcomed the diverse talents of all team members, provided a sounding board to struggling teachers, and created a climate of trust where people could be honest with one another. These supportive attitudes led to actions such as teammates eagerly participating in interdisciplinary projects, working together to explore applications for new technologies, or simply helping one another update a team webpage.

These supportive and flexible attitudes influenced the other noteworthy team attitude: risk-taking. As Chamberlain (2003) observed, teachers were more disposed to take risks when they knew they were supported by their team members and when flexibility was an engrained part of the school environment. In this study, teachers spoke of the confidence they received from having supportive teammates. This support often took the form of substantial, active assistance with implementation of both routine tasks and new ideas. Most importantly, participants knew risk-taking would not in some way discredit them if a new idea was not successful; support was often emotional and social in nature. This was facilitated by classrooms located in close proximity to one another and frequent CPT.

The three team attitudes of flexibility, supportiveness, and risk-taking influenced every aspect of these teachers' work, from planning daily instruction to suggesting new

courses. Participants expressed delight in these attitudes, seeming to enjoy the daily challenges that presented them with opportunities to experiment and problem-solve together.

Implications for Educators Pertaining to Team Attitudes (Flexibility, Support, Risk-taking)

It would be important for both pre-service teachers and those currently working in middle schools to receive specific training with regard to working on a team. There are many useful psychological and leadership-oriented skills that can be explicitly studied and practiced. It would also be important to make sure such training is on-going. Akin to the need for flexibility in middle schools, the ways in which team members interact and operate is also not static. CPT literally presents the perfect opportunity to regularly engage in such types of professional development.

Implications for Future Research Pertaining to Team Attitudes (Flexibility, Support, Risk-taking)

Similar to this researcher's recommendations regarding empathetic attitudes, it would be useful for future studies to examine how different variables affect the depth and expression of these three attitudes (flexibility, support, risk-taking). Researchers could explore if these attitudes fluctuate based on time of year, team composition, or building leadership. Such findings could help recommend ways to encourage the growth of these attitudes.

It would also be intriguing to investigate whether these attitudes are mirrored by the students assigned to these teacher teams. This study only probed the attitudes and beliefs of adults, not students. Future research could use such methodologies as employed in this study (surveys, focus groups, interviews) to obtain similar data from middle school students at

highly effective middle schools whose teachers are arranged on teams with CPT. Researchers could explore whether students internalized flexible, supportive, or risk-taking attitudes after witnessing teachers who daily model such behaviors.

Findings and Implications Pertaining to Beliefs Regarding Adolescence

One prominent theme centered on participants' beliefs regarding the unique needs of middle school students. Via stories and statements, teachers continually described a profound awareness of the distinctive physical, emotional, and intellectual challenges middle school students faced. This belief regarding adolescents influenced much of their work. For example, when choosing instructional activities teachers were mindful of the social orientation of their students— the fact that students preferred to work in groups, to move around, to discuss new ideas aloud.

The beliefs participants held regarding adolescents were supported by current research on the topic (Albert & Steinberg, 2011), as well as ideas expressed during the infancy of the middle school movement (Briggs, 1920; Koos, 1920). Experiments, philosophies, and practical experiences described by these writers address the unique needs of the adolescent learner, needs that must be taken into account when planning curriculum, establishing routines, and developing protocols. Participants in this study frequently described how their beliefs about adolescents allowed them to focus on the needs of the whole child. Aware of the adolescent desire to please adults, they established relationships with students in order to build trust and motivation. These teachers knew that a myopic focus on content would not result in higher student achievement.

Implications for Educators Pertaining to Beliefs Regarding Adolescence

There are endless implications for educators regarding teachers' beliefs pertaining to adolescence. As shown by this study, these beliefs impact every facet of daily life in a middle school. Teachers, pre-service and current practitioners, must have a firm grasp of the research behind specific adolescent traits and characteristics. They must understand that physical and emotional changes occurring during this time of life can deeply impact how students learn. This knowledge could be conveyed via college courses, professional development classes within district, or on-line classes. Given the strength of this theme with regard to this study, it is important to note that other researchers have reported that teachers with more middle school specific training were more satisfied with their teacher preparation programs overall (Scales & McEwin, 1994).

Implications for Future Research Pertaining to Beliefs Regarding Adolescence

This researcher did not investigate the specific pre-service training of study participants. It would be interesting to explore whether these beliefs regarding adolescents were a result of specific study on the topic, had been gained through experience working with middle school students, or acquired via some other means. It would be worthwhile to compare these findings to the beliefs of teachers at less effective schools, as well. Is it via the recurrence of CPT that provides teachers with an opportunity to apply these beliefs? Lastly, do effective teachers at other levels (elementary, high school) display such clear awareness of the unique developmental needs specific to the age groups they teach?

Research Question Two

What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?

Findings and Implications Pertaining to the Influence of the Team

Data analysis revealed that individual teachers and team members were deeply influenced by the attitudes and actions of fellow teammates. Participants spoke of the confidence they gained knowing that they had the support of their peers. They enjoyed the enthusiasm and encouragement openly expressed when new solutions were discussed. They laughed together and shared burdens. They eagerly assisted with mundane tasks and complex projects. This influence of the team was shown in a variety of contexts, from piloting new curriculum to dealing with a parent misunderstanding. The team structure, especially the guaranteed time spent together in CPT three times per week, facilitated the easy exchange of information and potential solutions to problems.

Research supports these findings regarding the positive influence of team members upon one another. Okrasinski (2007) noted that there was a statistically significant positive relationship between teachers' shared ideologies regarding teaching, curriculum, and long-term educational goals and higher levels of student achievement ($p < .024$). Other demographic variables did not reveal similar relationships, for example, team composition did not correlate to higher achievement scores. It was more important that team members shared deeper ideological attitudes and beliefs. Such views transcended age, content specialties, time on the team, and years of experience.

Harmon (1983) noted similar findings in a narrative description of a high-functioning team with CPT. Describing several key traits, she observed that teachers shared an optimistic outlook pertaining to both students and school structures; they were action-oriented, rather than passive observers. Harmon explained that the teachers were more likely to try new ideas because they had already brainstormed potential barriers with the team during CPT.

They used a collaborative style to solve problems and devised innovative solutions. This shared decision-making led to fewer disagreements and misunderstandings amongst the team members. Lastly, Harmon noted that while the team shared common traits, individual strengths and talents made the team stronger as a whole. The group shared the workload; each member contributed uniquely to the overall success.

These findings (Harmon, 1983; Okrasinski, 2007) mirrored the results of this study. The team members presented a variety of ages, levels of experience, time on team, and certification areas. The collective attitudes and beliefs influenced their daily work more than shared demographics or content interests. The teachers inspired one another by their willingness to take risks. Their confidence in the support of their teammates gave them courage. They all articulated an appreciation of the wide range of ideas and opinions offered by teammates. Some participants reflected that this team diversity challenged them to think deeper and more broadly, to consider alternate opinions and ideas, to expand their minds to possibilities beyond what may have originally appealed to their own sensibilities. The range of talents and expertise, used to pursue common goals, was a key factor in the efficacy of the team as a whole.

Implications for Educators Pertaining to the Influence of the Team

Data collected for this study revealed that team members enjoyed, appreciated, and constructively utilized CPT. In fact, when asked about suggested changes to their school, participants indicated a strong desire for more CPT meetings per week. Not a single teacher voiced any negative views pertaining to CPT or the loss of individual preparation periods. During CPT teachers planned together, assisted one another with a variety of tasks, solved problems, shared solutions, and provided emotional encouragement. This researcher

recommends that teams with CPT be established at all grade levels, K-12. Such arrangements could be aligned with common grade levels or content areas. The critical factor is dedicated common time spent together. Many schools currently have grade-level teams and departments that exist in name only, formed for the purpose of monthly meetings and the easy facilitation of a one-way exchange of information. These "team members" do not engage in such activities as described by the participants of this study.

For schools that currently have CPT, it is important that this time is sacred. Administrators should ensure that CPT is not frequently canceled due to immediate pressing concerns or infringed upon indiscriminately. It must literally be part of the weekly schedule of a team, viewed by all as important. Also, administrators should frequently visit a team during CPT. This researcher witnessed such unscheduled visits frequently during this study. Participants did not perceive these visits negatively. Administrators were viewed as members of the team, easily able to engage in team activities during CPT whether it was social in nature, or an opportunity to brainstorm solutions to a current problem.

Lastly, administrators should keep in mind the research supporting diversity of team membership. When forming teams, it is not important that team members share demographic characteristics, but ideological views. These would be important topics to investigate when interviewing potential job candidates, or perhaps explore via staff development and team-building exercises.

Implications for Future Research Pertaining to the Influence of the Team

Future researchers should investigate whether the efficacy of teams is due to specific training provided by a school, the result of structures and processes in place, or perhaps a disposition of team members. This data analysis showed shared attitudes and beliefs

regarding a variety of constructs, but it was unclear if these been formed as a result of CPT, specific staff development, or if teachers came equipped with such views when they were hired. Perhaps these teachers had received specific staff development in group processes, shared-decision making, and consensus-building. Future research could investigate what type of targeted training team members had received, and what forms it took. Administrators referred to routines such as requiring weekly CPT agendas and the formal establishment of team leader roles, but the reasons behind these actions were not apparent. It was not clear whether changes had been made due to an observed deficit, or simply an extension of new goals or initiatives.

Another area for future research pertains to teams with CPT at other grade levels. For example, the following research questions could be addressed: (a) How would CPT change, with regard to frequency of meetings and the type of tasks completed during that time, as based on the needs and demands of an elementary or high school setting, (b) Could the strength of a diverse team result not from teaching the same set of students but sharing a common content area (high school), and (c) Does membership on teams with CPT decrease teacher turn-over within a building or district?

Findings and Implications Pertaining to the Influence of Beliefs Regarding Adolescence

The beliefs held by participants about adolescence being a unique period of physical, emotional and intellectual development influenced their actions regarding both short and long-term goals. On a daily basis, beliefs regarding adolescence influenced instruction in terms of what teachers taught, how they taught it, and how they assessed it. Teachers described an ability to make instantaneous changes to pacing and methodology. Aware of how adolescents bring personal and emotional concerns to all situations, participants also

described their facility to capitalize on personal connections they had built with individual students. There was not a single part of the team members' work that was not affected by their beliefs regarding adolescence.

Current research supports the primacy of these ideas. Wormeli (2011) discussed the importance of middle school teachers being able to identify the developmentally appropriate aspects of a successful middle school. He cautioned that if teachers do not possess material knowledge regarding the specific characteristics unique to this age group, it will impact the pace and success of student transitions to the middle school settings, as well as overall learning. Similar to the participants in this study, Wormeli (2011) described adolescent students as a study in contradictions, "Fiercely curious and independent, yet almost paradoxically, they crave social connection. . . . Despite their natural egotism, young adolescents are extremely compassionate" (p. 51).

Implications for Educators Pertaining to the Influence of Beliefs Regarding Adolescence

Similar to this researcher's previous recommendations regarding teachers' views pertaining to adolescence, the ability to capitalize upon the ways these beliefs influence the work of teachers and teams necessitates a tangible and research-supported knowledge base. While this should ideally begin during undergraduate studies, teachers and administrators should be aware that such preparation is rare (McEwin & Dickinson, 2005). It is important to include such topics as part of on-going staff development initiatives at the middle school level, taking care to utilize the most current research on the topic and provide opportunities to devise practical applications of this knowledge.

An extension of such work could be the goal of providing educational opportunities to parents with regard to the special characteristics of adolescences, with a particular focus upon how these traits may be reflected in student work habits. It is not a leap to assume the majority of parents do not have any formal training with regard to adolescent development. Many parents might welcome a chance to learn what motivates young adults, and how they might use this knowledge at home to foster success at school.

Implications for Future Research Pertaining to the Influence of Beliefs Regarding Adolescence

Research (Steinberg, 2011) has documented the physiological differences in adolescent brains and how this impacts decision-making, emotions, planning, self-control, cognition, and learning. Most of this research has occurred in sterile laboratories utilizing complicated machinery, such as functional magnetic resonance imaging (fMRI), and subjects engaged in abstract tasks divorced from the nuances of real-life settings. Now is the time to capitalize upon the knowledge gained via such experiments and the anecdotal expertise of expert teachers such as those studied by this researcher. Teachers should work in conjunction with academic researchers to make use of the knowledge gained in laboratories to specifically craft more effective lessons and assessments. Research knowledge must now be applied in the classroom setting by actual practitioners. There is much talk regarding "brain-based" learning techniques (Jensen, 2008), but little has been tailored to the specific needs of middle school students. It is time to take advantage of new insights (Steinberg, 2011) and to learn how this knowledge can be practically used to increase student achievement in the middle school environment.

Limitations

Guba (1981) identified four separate aspects of trustworthiness: truth value, applicability, consistency, and neutrality. Due to the constrictions imposed by time and finances, this researcher was unable to spend as much time with participants as desired. Ideally, multiple focus groups held throughout the entire school year with the teacher teams would have provided richer sources of data. Also, interviews with all individual team members, while logistically unwieldy, would have greatly increased the size of the data pool. Although prolonged field experience is ideal (Bogden & Biklen, 2007), truth value, or credibility of the findings for this study, was heightened by the use of triangulation, both with regard to type of source, as well as methodology.

Applicability, according to Guba (1981), pertained to the idea that a study has been described in sufficient detail so that future investigators may make valid comparisons between other situations and the one being described. This limitation was directly addressed by the provision of a thorough description of the setting, participants, and methodology. Stake (2005) further extended this idea to mean also that a researcher should "describe the case in sufficient descriptive narrative so that readers can experience these happenings vicariously and draw their own conclusions" (p. 450). The explicit and detailed methodology section found in Chapter Three was an overt means of addressing these concerns.

Variability in data is to be expected in qualitative research (Krefting, 1991). Guba (1981) defined consistency in terms of dependability; although variability is anticipated and inherent in the domain, the researcher must strive to identify and explain those sources. It would have heightened consistency if team members from other highly effective middle schools had participated in this study, but again, this was impossible due to other constraints

faced by the researcher. This limitation was addressed by the use of multiple forms of response (open-ended surveys and oral questions), the variety of focus group participants (representing multiple grade levels, as well as a wide range of experience), an assortment of individual interview participants (teachers and administrators), and the collection of demographic information. A variety of artifacts were also collected throughout the entire study. These documents were used to further examine areas of variability identified in other data, as well as support the consistency of general findings. Detailed records were kept throughout the data collection in order to track all data sources and any variability therein.

Inherent in the core construct of qualitative research is the central role of the researcher. When discussing neutrality, Guba (1981) advised that naturalists must be aware of "the role that their own predispositions can play when they use themselves as instruments" (p. 81). Therefore, reflexivity was employed as a means of being aware of personal biases. As a middle school teacher at a highly effective school for more than 14 years, and member of three different teams with CPT, personal experience and history of this researcher played a role in this study's design and subsequent data analysis. The inclusion of a brief researcher biography in Chapter Three was used to provide readers with additional information regarding personal and professional experiences of the researcher that may have influenced this study.

Krefting (1991) noted, "The researcher is a participant, not merely an observer. The investigator, then, must analyze himself or herself in the context of the research" (p. 177). This was done via the use of notes taken during interviews and focus groups, and field notes typed afterwards. Krefting suggested recording "thoughts, feelings, ideas, and hypotheses . .

. questions, problems, and frustrations" (p. 177). Use of such reflexivity kept the researcher more aware of personal biases that may have influenced the data collection and analysis.

Lastly, an audit was conducted in order to better examine all four aspects of trustworthiness regarding this study. This involved the assessment of multiple documents collected and created over the course of the data collection process (Lincoln & Guba, 1985). The method of theme identification was examined, and the exact trail leading to a final synthesis of major themes was closely examined by a qualified research peer. Aspects of trustworthiness (truth value, applicability, consistency, and neutrality) were examined to ensure all findings were grounded in and supported by the data.

Final Thoughts

It is imperative that researchers continue to study qualities and constructs of effective middle schools. While controlled studies and quantitative methodologies can isolate variables and measure progress, qualitative research holds the key to illuminate the nuanced ways these variables interact in real settings. This is extremely pertinent with regard to the vagaries of school life, especially life in a middle school.

A wealth of quantitative research studies (see Chapter Two) have demonstrated the efficacy of teacher teams with CPT in terms of student achievement, as well as a wide variety of other measures such as efficacy and climate. A further review of literature revealed qualitative research involving teams with CPT, but did not shed a brighter light upon the findings of prior quantitative efforts. Quinn and Restine (1996) identified the concerns of teachers on newly formed teams (with CPT). Their findings, a list of both positive and negative attributes, reflected what the team members did, but not what motivated or influenced them. Cook and Faulkner (2010) extended this work by focusing on team

members at a highly effective middle school and their specific use of CPT. Similar to Quinn and Restine (1996), their methodology included observation of teams during CPT and individual teacher interviews. Cook and Faulkner's (2010) findings identified what activities were conducted during CPT, and how these tasks were executed, but again, the reasons supporting these endeavors were not explored.

By using a wider variety of methodologies and carefully constructed, open-ended questions this researcher was able to delve more deeply and identify the primary attitudes and beliefs influencing the work of teachers on teams with CPT at a highly effective middle school. The use of focus groups was particularly important given the significance of the team construct to this study. Within the setting of a focus group the team dynamics were able to been seen and heard. The strength of particular themes was underscored by the frequency of their occurrence across groups. It was remarkable to listen to individuals, groups, and administrators all describe similar experiences and attitudes. It was even more profound to witness the variety of forms these common attitudes took in the tangible, daily work of these teachers. Participants were able to articulate how empathy, shared team attitudes, and a belief in the unique needs of adolescents impacted every facet of their jobs. These stories and descriptions were not a list of activities or litany of personal opinions, but strong threads that bound team members together in identity and purpose. Through a deep and nuanced exploration of the attitudes and beliefs of middle school interdisciplinary team members with CPT at a highly effective middle school, this study sheds a brighter light upon the complex work of a community of professional educators.

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Appendix A: NELMS Spotlight School Award Application 2010-2011

Appendix A:

NELMS Spotlight School Award Application 2010-2011

New England League of Middle Schools

Spotlight School Award

Get the recognition your school deserves!

Purpose: The purpose of the Spotlight School Award is to recognize schools that have a record of powerful learning for young adolescents and consistently observe middle level best practices. A NELMS Spotlight School is recognized for developing strong effective programs that reflect concepts contained in *Turning Points 2000* and *This We Believe*.

Process: Schools submit data to NELMS by completing surveys and providing additional supporting documentation. NELMS will review these materials and make the selection of schools that will continue. Following the initial selection, one or two representatives of NELMS will visit the school. After the visit, schools worthy of Spotlight School recognition will be notified. NELMS representatives are from another state and are selected for their impartial knowledge of effective middle level practices and similar demographic experience. NELMS also recognizes schools based on its knowledge of individual middle level schools. Schools that have experienced the NELMS School Assessment process may be awarded the Spotlight School designation as a result of the assessment.

Fees: The initial application requires a $109 fee for members or $159 for non-members. Application fees are non-refundable.

Timeline:

- **Application MUST be received at NELMS no later than Friday, November 11, 2010.**
- Visitation: The visitation by the NELMS representatives will take place in January, 2011.
- Recognition: Announcement will be in April, 2011.

Application: This involves the completion of an indicator survey and the submission of information.

Recognition: Recognition for this prestigious award includes a presentation of a Spotlight School banner, press releases to local and regional news outlets, announcements in NELMS publications and recognition on the NELMS Web site. Also, it is expected that visitors will want to observe and learn about effective practices through scheduled small group visitations, coordinated by NELMS.

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Completing the Application Process

A completed application process involves the completion of the information sheet, the NELMS Self
Assessment Survey, and the submission of additional information listed below.

Establishing the group

It is suggested that the school assemble a representative group of educators from the building. We also suggest that those involved commit themselves to be reflective, objective and honest. Time should be available to think deeply about the entire school, as well as the following specific components:

- grade levels
- school communication
- recognition & special programs
- individual teams
- extra-curricular activities
- classroom instruction
- parent & community relations
- unified arts subjects & teams

Consensus Process

In addition, we also suggest that the representative group cooperatively agree to the self-assessment
indicators. To accomplish this, our suggested process is:

1. assemble the group and reflect on the entire school.
2. each person then completes the self-assessment individually.
3. the results are then combined.
4. the group discusses the results.
5. the group reaches consensus.
6. a single survey is then completed for submission.

Additional Information

Please include:

- ✓ a statement, of not more than 2 pages, that answers the question "What makes your Middle Level school a Spotlight School?" (Please include quotations from parents, students and teachers)
- ✓ copies of summary pages of state test scores over the last 3 years
- ✓ a copy or a synopsis of your current school improvement plan
- ✓ the number of **major** professional development activities that took place over the last 3 years.

Please list the activities, the topics or content, and the number of staff participants

- ✓ the number of professional staff that have specific middle level endorsements or degrees in middle level education
- ✓ staff and student attendance rates for the last 3 years
- ✓ student in-school and out-of-school suspension rates over the last 3 years
- ✓ a copy of the most recent student handbook.

New England League of Middle Schools

Self-Assessment Survey for Spotlight School Recognition Program

Answer the following questions based on your perspective of the common practice, attitude or understanding in your school. Circle your response using the following scale.

1 2 3 4 5 6 7 8 9

not evident seldom usually always evident

* *

Curriculum

Is your school:

Using state standards as a basis for the design of curriculum?

1 2 3 4 5 6 7 8 9

Using test data and student work to design units of study, assess progress, and improve instruction?

1 2 3 4 5 6 7 8 9

Demonstrating support for student-centered learning through a variety of approaches to instruction and assessment?

1 2 3 4 5 6 7 8 9

Providing a full array of unified arts experiences for every student?

1 2 3 4 5 6 7 8 9

Articulating curriculum across the grade levels so that skills and best practices are shared?

1 2 3 4 5 6 7 8 9

Implementing a curriculum that integrates the different disciplines to allow students to see the interconnectedness of the skills, concepts and content they are learning and how these are applied in the world beyond school?

1 2 3 4 5 6 7 8 9

Self-assessment survey 5

* *

Instruction

Is your school:

Utilizing a variety of instructional arrangements including but not limited to: cooperative learning, small group and large group instruction, flexible grouping practices, and differentiated instruction?

1 2 3 4 5 6 7 8 9

Utilizing a variety of grouping arrangements within a primarily mixed ability environment?

1 2 3 4 5 6 7 8 9

Providing daily team planning time for the purpose of dealing with curriculum development, common team concerns, scheduling, grouping and conferencing?

1 2 3 4 5 6 7 8 9

Providing staff with daily individual planning time?

1 2 3 4 5 6 7 8 9

Using ongoing instruction and assessment to design lessons?

1 2 3 4 5 6 7 8 9

Utilizing a student progress reporting system based on standards?

1 2 3 4 5 6 7 8 9

Recognizing and encouraging the interests, needs, and concerns of every student through organized curricular and co-curricular programs?

1 2 3 4 5 6 7 8 9

Self-assessment survey 6

Middle Level Teachers

Is your school:

Encouraging professional growth within the context of a school's vision, mission and goal statements?

1 2 3 4 5 6 7 8 9

Establishing a process for continuous staff improvement that connects research to best practices including workshop attendance, conferences and coaching in the content areas?

1 2 3 4 5 6 7 8 9

Providing ongoing professional development on the physical, emotional, intellectual and social characteristics of young adolescents and the best middle level practices?

1 2 3 4 5 6 7 8 9

Ensuring teacher participation in designing and applying school improvement goals, staff development training, and other professional activities?

1 2 3 4 5 6 7 8 9

Encouraging professional growth within the context of a school's vision, mission and goal statements?

1 2 3 4 5 6 7 8 9

Ensuring that staff is proficient in using a variety of instructional and authentic assessment strategies, which provide for effective student learning?

1 2 3 4 5 6 7 8 9

Articulating curriculum across the grade levels so that skills and best practices are shared?

1 2 3 4 5 6 7 8 9

* *

Self-assessment survey 7

Teaming

Is your school:

Establishing guidelines for the productive use of daily team planning time?

1 2 3 4 5 6 7 8 9

Establishing ways for teams to regularly self-assess and develop goals for self-improvement?

1 2 3 4 5 6 7 8 9

Articulating successes and improvement needs within a team so that learning skills and best practices are shared and coordinated?

1 2 3 4 5 6 7 8 9

Utilizing a leadership team, which facilitates and encourages the development of teaming and an integrated approach to learning?

1 2 3 4 5 6 7 8 9

Demonstrating a school wide atmosphere of cooperation and caring through positive interpersonal
relationships?

1 2 3 4 5 6 7 8 9

Maintaining a team notebook of minutes and agendas?

1 2 3 4 5 6 7 8 9

Developing and implementing an effective and cooperative orientation and transition process to serve the needs of parents and students in making the following transitions:
a. elementary to middle school?
1 2 3 4 5 6 7 8 9

Govern Democratically

Is your school:
Involving students, parents and community members in meaningful democratic participation focusing on matters that clearly affect them?
1 2 3 4 5 6 7 8 9
Participating annually in data collection essential to continuing school improvement focused on student learning?
1 2 3 4 5 6 7 8 9
Requiring the creation of inquiry groups created to investigate the causes and potential solutions to school based problems?
1 2 3 4 5 6 7 8 9
Developing and adopting a data-driven, comprehensive school improvement plan?
1 2 3 4 5 6 7 8 9
Receiving sustained support for student achievement from district level personnel?
1 2 3 4 5 6 7 8 9
* *

School Environment

Is your school:
Offering a variety of age appropriate social experiences and activities?
1 2 3 4 5 6 7 8 9
Providing a safe, caring, and healthy environment that promotes student responsibility and meaningful parent involvement?
1 2 3 4 5 6 7 8 9
Providing a variety of activities that are inclusive and support participation of every student?
1 2 3 4 5 6 7 8 9
Self-assessment survey 9
Embedding healthy, physical activities into each day?
1 2 3 4 5 6 7 8 9
Expecting students to support each other and respect individual differences?
1 2 3 4 5 6 7 8 9
Creating advisory programs to ensure that every student is well known by at least one adult?
1 2 3 4 5 6 7 8 9
* *

Involving Parents and Community

Is your school:
Frequently assessing and evaluating the methods used to report student performance to families?
1 2 3 4 5 6 7 8 9
Keeping families aware of student progress in relationship to instructional standards through frequent communication?
1 2 3 4 5 6 7 8 9

Promoting the importance of being open and receptive to the concerns of students, families, and community?
1 2 3 4 5 6 7 8 9
Providing regular and meaningful opportunities for students to engage in community service and service learning activities?
1 2 3 4 5 6 7 8

Appendix B: Teacher Open-ended Survey

Appendix B:

Teacher Open-ended Survey

Name: _____

Team: _____

Please answer the questions below:

1. Why did you become a middle school teacher?

_____

_____

_____

_____

2. Describe your concept of middle school teaming:

_____

_____

_____

_____

3. Describe your relationship with your team:

_____

_____

_____

_____

4. Describe a typical middle school student; what is he or she like?

_____

_____

_____

_____

5. What methods of teaching and instruction work best with middle school students?

_____

_____

_____

_____

6. How do you encourage students to think critically and creatively?

_____

_____

_____

_____

7. What is essential to good middle school structure? (any type: physical organization of the building, scheduling, etc.)

_____

_____

_____

_____

8. Describe the role of the administration in your middle school:

_____

_____

_____

_____

9. What role do parents play?

_____

_____

_____

_____

Thank you for your time!

Appendix C: Teacher Demographic Questionnaire

Appendix C:

Teacher Demographic Questionnaire

Please complete the questions below. All information will be kept confidential.

1. Name_____

2. Team: _____

3. Gender (check one): ❑ female ❑ male

4. Age: _____ years old.

5. Number of Years in Education: _____

6. I currently teach (check all that apply):

❑ 6th ❑ 7th ❑ 8th grade(s)

7. Subject Area: _____

8. Number of Years Teaching this Grade Level: _____ year(s)

9. Number of years on this middle school team: _____ year(s)

10. Other Grade Levels Taught: _____

11. Other Subjects Taught: _____

12. Ethnicity (optional):

❑ Caucasian (Non-Hispanic) ❑ Hispanic ❑ African-American
❑ Native American ❑ Asian/Pacific Islander ❑ Alaskan Native
❑Other (Please indicate) _____

Appendix D: Focus Group Questions for a Middle School Team

Appendix D

Focus Group Questions for a Middle School Team

Directions:

"Hello, my name is _____ and I am conducting research on middle school teams that share common planning time. Research shows that middle schools with this structure are more successful. The information you share with me today will be used in my thesis to describe the beliefs and attitudes teams hold. You will not be identified in any way; I will use random numbers to identify you in the text; no individual responses will be shared with the administration. Please also remember that there are no right or wrong answers to these questions. You work in a very successful school; I just want to hear your stories about your work, the students, and your team."

1. What makes your a middle school a true middle school?
2. Describe this team using an adjective, metaphor or symbol.
   Tell me a story that captures the personality of this team.
3. Why did you become a middle school teacher?
4. Describe yourselves as teachers. How do you organize your classrooms? Plan lessons? Teach? How do you encourage students to think critically? How do you encourage curiosity in your students?
5. Describe a typical middle school student here. What are they like?
   Describe student work habits, how they interact with teachers, typical personality traits, and so forth); how are they different from other ages?
6. Describe a typical team meeting. What do you usually do? Who sets the agenda? What are typical topics of conversation? Do these change often?
7. Do you have specific team goals? If so, how are they measured and assessed? How often are they re-visited or revised?
8. Describe professional development in terms of your team:

9. What if a new member joins the team? How do you incorporate them?

10. Have any of you worked on other teams? How did they differ (from this one)?

11. How do you communicate with other members of your department? Do you communicate regularly with teachers at the elementary level? The high school?

12. Describe your relationship with the administration. In what ways do you interact with them? How do they influence your team, your teaching, etc.?

13. Describe your relationship with parents. In what ways do you interact with them? How do they influence the team, your teaching, etc.?

14. Describe the ideal middle school schedule:
    What length should periods be? How many per day? What types of "specials" should be offered?

15. What should an ideal middle school look like (in terms of layout, physical structure, location of classrooms, lunch room, library, etc.)?

16. What is the most important quality a middle school team needs?

17. What is the most important quality a middle school teacher needs?

18. Describe effective curriculum, effective lessons, etc.

19. What role does administration play in a good middle school?

<u>General prompts:</u>
Can you give me some examples of what you mean?
Could you tell me a little bit more?
Could you explain that? Expand upon it?

Appendix E: Individual Teacher Interview Questions

Appendix E:
Individual Teacher Interview Questions

1. Please tell me about your educational background?
   (Probe for information about formal education and training, as well as professional experiences.)

2. How long have you worked at _____? What jobs have you held here?

3. Why did you choose to teach at the middle school level?

4. What are some accomplishments you are proud of since coming here?

5. What is your philosophy about middle schools?
   (Prompt: This could pertain to education, curriculum, structures, etc.)

   How does this extend to the concept of teams and CPT?

6. Describe the typical _____ middle school student:

7. Describe yourself as a teacher:
   (Prompt for information pertaining to teaching style, ways in which they interact with the students, ideas pertaining to curriculum and assessment, etc.)

8. Please tell me a little bit about your team:
   (Probe for descriptions of strengths, how they differ from other teams, characteristics they have in common with other teams, working styles, issues pertaining to leadership on the team and so forth.)

9. How, and in what ways, do you interact with: other members of your team, students, parents, administration?

10. What sort of activities does your team engage in during CPT?
    What is an advantage having CPT?

11. Do teams at _____ undergo any specific training together? Do new members to a team receive any individual orienting?

12. Describe professional development here at _____:

13. What changes would you make to the middle school here if time and finances were not an issue?

14. What are your long term goals for _____ middle school? What would you like to see change in terms of curriculum, physical structure, scheduling, professional development, etc.?

Appendix F: Individual Administrator Interview Questions

Appendix F:
Individual Administrator Interview Questions

1. Could you please tell me a little about your educational background?
   (Probe for formal educational experiences, professional experience prior to becoming principal of this school, etc.)

2. How long have you been principal of _____? What are some accomplishments you are proud of since coming here?

3. Why did you choose to work at the middle school level?

4. What is your philosophy about middle schools?
   (Prompt: This could pertain to education, curriculum, structures, etc.)

   How does this extend to the concept of teams and CPT?

5. Describe the typical _____ middle school student:

6. Describe a typical _____ middle school teacher in terms of teaching style, ways in which they interact with the students, etc.:

7. Please tell me a little bit about the teams at _____.
   (Probe for descriptions of individual teams, issues pertaining to leadership on the teams, how they differ from one another, characteristics they have in common, strengths, working styles, and so forth.)

8. How, and in what ways, do you regularly interact with individual teams?

9. What sort of activities do the teams engage in during CPT?

10. What is an advantage of teams having CPT?

11. Do teams at _____ undergo any specific training together? Do new members to a team receive any individual orienting?

12. Describe professional development here at _____:

13. How, and in what ways, do you regularly interact with individual teams?

14. How, and in what ways, do you regularly interact with parents?

15. What changes would you make to the middle school here if time and finances were not an issue?

16. What are your long term goals for _____ middle school?

Appendix G: Executive Summary

Appendix G:

Executive Summary

ATTITUDES AND BELIEFS HELD BY TEACHERS ON TEAMS WITH COMMON PLANNING TIME AT HIGHLY EFFECTIVE MIDDLE SCHOOLS
By Amy Reynolds

Executive Summary of Study

Purpose:
The purpose of this study is to explore the beliefs and attitudes held by teachers on middle school teams that share common planning time (CPT) at highly effective schools.

Rationale:
The most effective middle schools are those that have teacher teams (Carnegie Corporation of New York, 2000). Research demonstrates that middle schools with teams sharing CPT are more effective than teams without CPT, as well as schools without teams at all. Much of this research involves quantitative measures: student test scores, suspension rates, as well as measures of work environment, self-efficacy, self-esteem, climate, etc. (Flowers, Mertens, & Mulhall, 1999; Warren & Muth, 1995; Warren & Payne, 1997).

In these times of high-stakes testing and value-added measurements, the pressures on educators increase daily. It is important to continue validating the team concept as an important aspect of middle level education. This study seeks to qualitatively explore the attitudes of effective middle level teachers on teams sharing CPT by probing their beliefs pertaining to: teaming, school structure, curriculum, students, administration, instruction, and the inter-related nature of their work. Additional areas of interest include: how and in what ways team members interact, how CPT is used; as well as how goals are set and measured. This research has the potential to also help shape professional development for pre-service teachers, middle level teachers, and administrators.

Procedures:
Information will be gathered via: focus groups, extended response written surveys, and interviews with the building principal and individual teachers. Basic demographic information will also be obtained from all participants. Teachers from all participating teams will be given an extended response written survey, to be completed by hand or electronically. Focus groups will be held with four to six separate teams, from at least two different grade levels. Individual interviews will be held with two members from each team: the longest serving and the newest. Artifacts/documents generated by the team such as curriculum, memos, and so forth, will also be examined. The entire study is designed to take a minimum amount of time for each educator's participation: focus groups- 40 minutes, survey- 30 minutes, and interview- 40 minutes.

Findings:
All personal data will be kept confidential; no names or identifying information will be used. Results will be reported in the researcher’s final dissertation.

Appendix H: Cover Letter and Consent Form (Principal)

Department of Education and Educational Psychology
181 White Street
Danbury, CT 06810

December 2010
Dear (Principal):

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this study is to explore the beliefs and attitudes held by teachers on interdisciplinary teams that share common planning time (CPT) at highly effective middle schools.

Methods of gathering information used in this study will be: focus groups held with individual teams, individual interviews with at least two members from each participating team, individual interviews with middle school administrators, examination of school artifacts and documents, and a written teacher extended response survey. All focus groups will take place during the school day, during the team's regularly scheduled common planning time. Individual interviews will take place at the participant's convenience, during or after the school day. Written teacher surveys may be completed by hand, or electronically, and should take no longer than 30 minutes to complete. Basic demographic information will also be obtained from all participants.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Participation is completely voluntary and subjects may withdraw at any time. Survey data and transcripts will be coded to ensure that all responses are kept strictly confidential. Participants will be assigned a coded number to protect privacy. A description of the final results will be offered to participants, although individual teacher responses will not be made available.

I wish to thank you and the administrators of the (name of school district) Public School district for considering participation in this study and contributing to the body of research that supports the efficacy of interdisciplinary middle school teams sharing common planning time. It is hoped that results of this investigation could be used to shape future professional development for pre-service teachers, middle-level educators, and administrators. If you have any questions, please feel free to contact me.

Sincerely,

Amy Reynolds
reynoldsa@northsalem.k12.ny.us

Marcia Delcourt, PhD
Coordinator, EdD in Instructional Leadership
delcourtm@wcsu.edu

I agree that the study described above can be conducted in (name of school).

_____	_____	_____
Please Print Name	Participant Signature	Date

Appendix I: Cover Letter and Consent Form (Superintendent)

Department of Education and Educational Psychology
181 White Street
Danbury, CT 06810

December 2010
Dear (Superintendent):

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this study is to explore the beliefs and attitudes held by teachers on interdisciplinary teams that share common planning time (CPT) at highly effective middle schools.

Methods of gathering information used in this study will be: focus groups held with individual teams, individual interviews with at least two members from each participating team, individual interviews with middle school administrators, examination of school artifacts and documents, and a written teacher extended response survey. All focus groups will take place during the school day, during the team's regularly scheduled common planning time. Individual interviews will take place at the participant's convenience, during or after the school day. Written teacher surveys may be completed by hand, or electronically, and should take no longer than 30 minutes to complete. Basic demographic information will also be obtained from all participants.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Participation is completely voluntary and subjects may withdraw at any time. Survey data and transcripts will be coded to ensure that all responses are kept strictly confidential. Participants will be assigned a coded number to protect privacy. A description of the final results will be offered to participants, although individual teacher responses will not be made available.

I wish to thank administrators of the (name of school district) Public School district for considering participation in this study and contributing to the body of research that supports the efficacy of interdisciplinary middle school teams sharing common planning time. It is hoped that results of this investigation could be used to shape future professional development for pre-service teachers, middle-level educators, and administrators. If you have any questions, please feel free to contact me.

Sincerely,

Amy Reynolds
reynoldsa@northsalem.k12.ny.us

Marcia Delcourt, PhD
Coordinator, EdD in Instructional Leadership
delcourtm@wcsu.edu

I agree that the study described above can be conducted in (name of school district).

_____	_____	_____
Please Print Name	Signature	Date

Appendix J: Cover Letter and Consent Form (Assistant Superintendent)

Department of Education and Educational Psychology
181 White Street
Danbury, CT 06810

December 2010
Dear (Assistant Superintendent):

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this study is to explore the beliefs and attitudes held by teachers on interdisciplinary teams that share common planning time (CPT) at highly effective middle schools.

Methods of gathering information used in this study will be: focus groups held with individual teams, individual interviews with at least two members from each participating team, individual interviews with middle school administrators, examination of school artifacts and documents, and a written teacher extended response survey. All focus groups will take place during the school day, during the team's regularly scheduled common planning time. Individual interviews will take place at the participant's convenience, during or after the school day. Written teacher surveys may be completed by hand, or electronically, and should take no longer than 30 minutes to complete. Basic demographic information will also be obtained from all participants.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Participation is completely voluntary and subjects may withdraw at any time. Survey data and transcripts will be coded to ensure that all responses are kept strictly confidential. Participants will be assigned a coded number to protect privacy. A description of the final results will be offered to participants, although individual teacher responses will not be made available.

I wish to thank administrators of the (name of school district) Public School district for considering participation in this study and contributing to the body of research that supports the efficacy of interdisciplinary middle school teams sharing common planning time. It is hoped that results of this investigation could be used to shape future professional development for pre-service teachers, middle-level educators, and administrators. If you have any questions, please feel free to contact me.

Sincerely,

Amy Reynolds
reynoldsa@northsalem.k12.ny.us

Marcia Delcourt, PhD
Coordinator, EdD in Instructional Leadership
delcourtm@wcsu.edu

I agree that the study described above can be conducted in (name of school district).

Please Print Name	Signature	Date

Appendix K: Cover Letter and Consent Form (Assistant Principal)

Department of Education and Educational Psychology
181 White Street
Danbury, CT 06810

December 2010
Dear (Assistant Principal):

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this study is to explore the beliefs and attitudes held by teachers on interdisciplinary teams that share common planning time (CPT) at highly effective middle schools.

Methods of gathering information used in this study will be: focus groups held with individual teams, individual interviews with at least two members from each participating team, individual interviews with middle school administrators, examination of school artifacts and documents, and a written teacher extended response survey. All focus groups will take place during the school day, during the team's regularly scheduled common planning time. Individual interviews will take place at the participant's convenience, during or after the school day. Written teacher surveys may be completed by hand, or electronically, and should take no longer than 30 minutes to complete. Basic demographic information will also be obtained from all participants.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Participation is completely voluntary and subjects may withdraw at any time. Survey data and transcripts will be coded to ensure that all responses are kept strictly confidential. Participants will be assigned a coded number to protect privacy. A description of the final results will be offered to participants, although individual teacher responses will not be made available.

I wish to thank you and the administrators of the (name of school district) Public School district for considering participation in this study and contributing to the body of research that supports the efficacy of interdisciplinary middle school teams sharing common planning time. It is hoped that results of this investigation could be used to shape future professional development for pre-service teachers, middle-level educators, and administrators. If you have any questions, please feel free to contact me.

Sincerely,

Amy Reynolds
reynoldsa@northsalem.k12.ny.us

Marcia Delcourt, PhD
Coordinator, EdD in Instructional Leadership
delcourtm@wcsu.edu

I agree that the study described above can be conducted in (name of school).

_____	_____	_____
Please Print Name	Participant Signature	Date

Appendix L: Cover Letter and Consent Form (Teacher)

Department of Education and Educational Psychology
181 White Street
Danbury, CT 06810

December 2010
Dear Teacher:

I am currently enrolled in the doctoral program for Instructional Leadership at Western Connecticut State University. This program requires that I design and implement a dissertation research study. The purpose of this study is to explore the beliefs and attitudes held by teachers on interdisciplinary teams that share common planning time (CPT) at highly effective middle schools.

This study is dependent on the participation of teacher teams. Methods of gathering information will be: focus groups held with individual teams, individual interviews with at least two members from each participating team, individual interviews with building administration, examination of school artifacts and documents, and a written teacher extended response survey. All focus groups will take place during the school day, during the team's regularly scheduled common planning time. Individual interviews will take place at the participant's convenience, during or after the school day. Written surveys may be completed by hand, or electronically, and should take 30 minutes to finish. Basic demographic information will also be obtained from all participants.

This research study has been reviewed and approved by Western Connecticut State University's Institutional Review Board. Participation is completely voluntary and you may withdraw at any time. Survey data and transcripts will be coded to ensure that all responses are kept strictly confidential. You will be assigned a coded number to protect privacy. Final results will be offered to participants, although individual teacher responses will not be available.

I wish to thank you for considering participation in this study and for contributing to the body of research that supports the efficacy of interdisciplinary middle school teams sharing common planning time. It is hoped that results of this investigation could be used to shape future professional development for pre-service teachers, middle-level educators, and administrators.

In appreciation of your contributions, a $5 Barnes & Noble gift card will be enclosed with your written survey. If you have any questions, please feel free to contact me.

Sincerely,

Amy Reynolds
reynoldsa@northsalem.k12.ny.us

Marcia Delcourt, PhD
Coordinator, EdD in Instructional Leadership
delcourtm@wcsu.edu

I agree that the study described above can be conducted in (name of school).

Please Print Name	Participant Signature	Date

Appendix M: Code List and Definitions

Appendix M:

Code List and Definitions

Code Name	Definition
1**. administration***	topic pertains to administration in some way
2. admin support: with parents	how admin supports teachers with regard to issues with parents
3. admin support: resources and intangibles	how admin supports the teachers with regard to resources (material, immaterial, etc.)
4. admin: decisive, take action	actions taken by admin show quick, decisive action; confidence
5. **adolescence**	description of typical adolescence behavior, characteristic, trait, etc.
6. identity: student search for	adolescent trait of figuring out "who they are"; this may pertain to friendships, curricular or co-curricular interests, life-goals and more
7. impulsive: kids are	adolescent trait of acting quickly and without thought
8. independence: student search for	adolescent trait of becoming more able to act without supervision, take responsibility for task, etc.
9. innocent: kids are	adolescent students are naïve with regard to particular matters, young in behavior and ideas
10. like to learn	student(s) display an enjoyment of learning
11. barrier	physical or abstract item standing in the way of progress, growth, etc.
12. bullying	pertains to physical or emotional bullying
13. child-centered	action or decision made with the child's best interests in mind
14. CPT	common planning time
15. curious	teacher or student displays a natural curiosity
16. **curriculum and instruction**	pertains to the general topic of curriculum and instruction

*Code in bold denotes category under which related sub-codes were developed (listed directly underneath on this chart).

17. curriculum and instruction: active learning	curriculum experience must be an active one; this may be hands-on, inquiry, groups, etc. Students are not passive.
18. curriculum and instruction: differentiation	Pertains to curricular modification and differentiation
19. curriculum and instruction: engaging	curriculum should engage and interest
20. curriculum and instruction: inquiry	curriculum is driven by inquiry
21. curriculum and instruction: relevant and meaningful	curriculum must be age appropriate, interest-based, relevant, etc.
22. curriculum: choice	some sort of choice by student when learning
23. curriculum: interdisciplinary	curriculum that spans content areas
24. data driven	divisions made based on data; can be test scores, local or state assessments, attendance data, discipline data, etc.
25. digesting: making meaning	text shows the speaker(s) is making sense of something, solving a problem, working to understand a new concept or idea.
26. direct instruction	method of teaching when content is delivered to student in straightforward manner
27. **empathy**	speaker(s) display direct awareness and concern for the feelings and perspective of someone else; this could be shown towards students, admin, or parents
28. enjoy being there: the kids	students enjoy being at the school building
29. fear that the researcher will reveal answer to . . .	speaker displays fear or concern that the researcher will share their answer or information with a third party
30. feedback: use of	how students use feedback provided by the teacher; how a teacher provides said feedback, methods, etc.
31**. flexibility: adaptability**	attitude and actions of being easily able to change plans or ideas; this could pertain to what will be taught, when it will be taught, who a teacher collaborates with, and much more. Low ego. Risk taker.

32. global: the big picture	speaker displays an awareness of the larger goal or context with regard to a particular situation or idea; does not lose sight of the main vision; does not get "bogged down" with details or barriers
33. group skills: need in future too	the need to train students to work in groups so that they will be successful in future situations requiring this skill; linked to "real work" and 21st century skills
34. grouping: of students	how and why students are grouped for specific classes, learning tasks, etc.
35. high expectations	the idea that a teacher, admin or parent expects high levels of achievement and/or exemplary behavior from student
36. housekeeping	mundane-type task such as grading papers, updating a website, completing discipline forms, etc.
37. honest (with one another)	speaker is comfortable relaying potentially critical information or ideas to another, does not hide information that may be hurtful
38. individuals: view students as	speaker(s) views students as unique persons with personal needs; "sees the trees in the forest"
39. key quote	quote articulates key concept or idea **VERY** well
40. leadership structures	description of specific school mechanism (system) that allows communication and/or execution of admin goal; allows school to function more effectively
41. metaphor	speaker uses a metaphor
42. motivation	pertains to student desire to complete a task, learn
43. negative view of kids	speaker displays a negative perspective with regard to the student(s)
44. new to team	teacher is a new member of team
45. **parents**	topic pertains in some way to parents
46. parent support: less	negative description of parent action, attitude, etc.
47. parents support: positive	positive description of parent action, attitude, etc.
48. passionate	speaker display excitement regarding an idea or concept
49. performance tasks	pertaining to type of assessment occurring

	at end of unit, requires active participation of student
50. physical environment	pertains to the actual physical environment, could be school building at large, or classroom specifically
51. please: students want to and seek approval	student desire to perform well for teacher or other adult
52. positive mindset	speaker displays optimism, can-do attitude, problem-solving nature
53. powerless	speaker has no choice or opportunity to make change(s)
54. practice and repetition: instruction	need for students to truly acquire new skill or concept through…
55. professional development	formal or informal opportunity for teacher to acquire new skill or concept related to improving their ability to teach effectively; may be a class, mentoring, self-taught, etc.
56. recess	opportunity during school day for students to "play" outside
57. reflective	speaker shows a reflective nature, ponders an idea or concept, etc. Shows deeper thinking, often involves linking other ideas together and applying to new or future occurrence.
58. relationships: with kids	statement pertains to a personal or individualized relationship with students; making connections
59. risk taking: unafraid to experiment	speaker displays a willingness to try out new ideas, change a method of operating, and so forth
60. safety	concern for physical or emotional safety of student
61. shared decision-making	action of group of individual to consult with another prior to making a decision, willingness to listen to the ideas of others and take others' POV's into account, low ego
62. sincere	speaker or story shows sincerity
63. student work: analysis of	examining student products, assessment for a particular purpose

64. **team**	topic pertains in some way to teacher teams and their functioning
65. team at work	text shows team working together to accomplish a task
66. team identity	text shows a perspective of taking on the team POV; viewing a collaborative identity when making decisions (not individual)
67. team: friends	text shows team or individual acting in friendly manner towards one another
68. team: honesty	text shows team or individual acting honestly towards one another
69. team: support	text shows team or individual displaying active support towards one another; could be literal, emotional, etc.
70. team: variety is strength	team prides itself on the diverse composition of its members; this may be with regard to content specialties, skills, personalities, etc.
71. technology	pertains to physical access, ability to operate, knowledge pertaining to, etc.
72. tests	type of assessment
73. time constraints	speaker displays frustrations with the boundaries of time; could pertain to 40 min. classes, 10 month year, 3 year MS, etc.
74. transition to MS	pertains to students' adjustment to middle school routines and expectations
75. trust (of one another)	statement shows trust of/in others
76. vision: ideas and goals	long-term goal or team, individual, or school; larger picture view
77. voice: have one	ability of the individual or team to "have a say" in school policy, procedure, operations, etc. This could pertain to curriculum, scheduling, etc.

Appendix N: Map of Data Supporting Themes

Appendix N

Map of Data Supporting Themes

Research Question	Questions Asked	Constructs	Codes	Themes
1. What are the beliefs and attitudes about education of middle school interdisciplinary team members who share Common Planning Time (CPT)?	Open-ended Survey: Numbers 1 – 5, 7 Focus Group Questions: Numbers 1 – 5, 7, 14 – 19 Individual Teacher Interview: Numbers 3, 5 – 8, 13, 14 Individual Administrator Interview: Numbers 3, 5, 6, 10, 15, 16	communication curriculum middle schools scheduling school structures student traits teaching methods team goals	adolescence child-centered choice curious curriculum empathy enjoy being there fear flexibility global high expectations honest identity independence individuals innocent instruction like to learn positive mindset recess relationships team vision voice	Empathetic attitude towards students. Beliefs pertaining to adolescence.

Appendix N (continued)

Map of Data Supporting Themes

Research Question	Questions Asked	Constructs	Codes	Themes
2. What influences the beliefs and attitudes towards education of middle school interdisciplinary team members who share Common Planning Time (CPT)?	Open-ended Survey: Numbers 3, 5, 6, 8, 9 Focus Group Questions: Numbers 4, 6 – 9, 11 – 13 Individual Teacher Interview: Numbers 8 – 12, Individual Administrator Interview Numbers 4, 8, 9, 11 – 14	administration communication CPT meetings curriculum parents scheduling school structures teaching methods professional development team interactions teacher preparation transitions	administration adolescence barrier bullying CPT data-driven decision making feedback future needs group skills grouping housekeeping leadership motivation new to team parents physical environment powerless practice prof. development risk-taking safety team technology tests time constraints transition trust	Empathetic attitude towards students. Team attitudes: flexible, supportive, risk-taking.