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# Implementation of The Essential Elements of Standards-Focused Middle-Level Schools and Programs and Their Relationship to Student Achievement

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## Abstract

In New York State, there are regulations that describe many of the practices that middle-level schools are supposed to implement. Yet, little is known about the effectiveness of these middle-level practices in schools in the state. Without definitive information about the impact of middle-level practices on student achievement, it's difficult for practitioners and leaders to know if the school improvement decisions they make are the right ones and whether they will have the desired impact on student achievement.

This study compares the implementation of the middle-level guidelines for New York State, known as *The Essential Elements of Standards-Focused Middle-Level Schools and Programs*, with the student achievement in these schools. Survey data were collected from 185 middle-level schools about their level of implementation of these *Essential Elements*. After controlling for economic disadvantage, the data about implementation in these schools was compared to the student achievement as measured by the New York State testing program.

Based on the data, it is apparent that implementation of the *Essential Elements* is incomplete. A correlation was identified, however, that suggests that the degree of implementation of the *Essential Elements* does have a statistically significant impact on student achievement. Consequently, middle-level schools should work to implement the *Essential Elements* with greater attention and fidelity.

# IMPLEMENTATION OF THE ESSENTIAL ELEMENTS OF STANDARDS-FOCUSED MIDDLE-LEVEL SCHOOLS AND PROGRAMS AND THEIR RELATIONSHIP TO STUDENT ACHIEVEMENT

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# CHAPTER 1

## Introduction

Public education in the United States seems to be locked in a perpetual battle over purpose, design, and accountability. Complaints about the inadequacy of K–12 education prompt legislative and regulatory intervention. Research and anecdotal evaluations cast doubt on the efficacy of the intervention. Public and political outcry emerges again, and the cycle continues.

Middle-level education is a particular focus of concern, yet little is known about the effectiveness of middle-level practices such as those as identified by the National Middle School Association (2003) or by the New York State Education Department (2003a). While not necessarily exclusive to the middle-level, middle-level practices are the structures, programs, and approaches that are recommended for use with early adolescents (students aged 10-14) who are typically in grades 5 – 8. In New York State, these practices are detailed in the *Essential Elements of Standards-Focused Middle-Level Schools and Programs*, and are introduced in Table 1 and delineated in the Appendix. Without definitive information about the impact of these middle-level practices on student achievement, it is no wonder that clashes between policy and practice, implementation and accountability, and past and present continue.

For years, the education of early adolescents (students aged 10–14), hereafter referred to as middle-level education, has been a lightning rod for criticism. Perhaps this is because the middle position is more vulnerable to attacks from multiple angles. Perhaps the criticism reflects a lack of significant increases in student achievement. Perhaps the reason is a lack of a commonly accepted purpose for middle-level education. No matter the reason, controversy about middle-level practices persists.

A quick survey of the literature about middle-level education and the media illustrates the situation. *TIME* magazine, in 2005, offered a provocation with the headline, "Is Middle School Bad for Kids?" (Miranda & Rubiner, 2005). Jay Matthews, education writer for the *Washington Post*, started a column this way: "Here is something I have learned from talking to parents the past 20 years: There are no good middle schools" (2002). In the *New York Times*, middle schools have been labeled as "the Bermuda Triangle of public education" ("Joel Klein's First Day of School," 2002). A scathing indictment of middle schools by the Thomas B. Fordham Institute was titled, "Mayhem in the Middle: How Middle Schools Have Failed America—and How to Make Them Work" (Yecke, 2005). More recently, the question "Do Middle Schools Make Sense?" was asked in *The Magazine of the Harvard Graduate School on Education* (Tamer, 2012).

At the same time, as pointed out repeatedly in the literature, existing research on middle-level education is shallow, and awareness about best practices in middle-level education is uneven (Juvonen, Kaganoff, Augustine & Constant, 2004 and Williams, Kirst &Haertel, 2010). Limited as it is, this research tends to use state, national, or international aggregate data about student achievement to indict middle-level education, rather than examine the relationship between student achievement and any particular instructional, programmatic, or organizational approaches (Yecke, 2005 and Juvonen, Kaganoff, Augustine & Constant, 2004). Indictments such as Yecke's—"Academic achievement plummets between the fourth and eighth grades (p. i)"—can be useful in calling attention to middle-level education and urging action, but comparisons of U.S. achievement data to that of other countries do little to suggest specific actions that can be taken to improve student achievement.

In New York State, criticism of middle-level education is no less frequent than it is in other places. When student achievement data from the grades 3–8 assessment regimen are published in newspapers, accusatory headlines often accompany the data. For example, when state test scores were published in Syracuse's primary newspaper, the *Post-Standard*, the editors issued an editorial entitled "Soft in the Middle" to accompany the release (2006). They expressed dismay about assessment results but offered no concrete advice. Ironically, despite these recurring criticisms and lamentations, little systematic research has been done nationally and in New York State specifically about the relationship between student achievement and middle-level practices. Poor assessment results should not be used to justify a wholesale dismissal of middle-level practices; instead, more research should be conducted (Craig, 2004).

In 2009, the New York State Education Department, under the leadership of then-Commissioner David Steiner, rescaled grades 3–8 assessment scores so as to make them lower. The stated reasons for this downward correction included poor test construction, the focus on a narrow slice of performance indicators, and technical issues (New York State Education Department, 2010a). While increased achievement by students in grades 3–8 in New York had been reported over recent years, this progress was dismissed as being false because corresponding increases in National Assessment of Educational Progress (NAEP) scores were missing (New York State Education Department, 2010a). As a result of this downward correction, any progress that was being made in the middle grades during recent years was instantly discounted. Thus was the blaming of poor achievement on middle-level programs renewed.

One problem with assessing the effectiveness of middle schools may be that "middle-level education" has been shifting. During the period between 1981 and 2005, the number of

schools in New York State that consisted of grades 5–8 or 6–8 increased 130% and 205%, respectively (New York State Middle School Association, 2005). During the same period, configurations of grades 7–8, grades 7–9, and grades 7–12 all decreased on a percentage basis (New York State Middle School Association, 2005). Superficially, these data might suggest that there are more middle-level schools than there used to be, using the commonly accepted definition of a middle school as a school for grades 5–8 or 6–8. However, the data tell us little about what is going on inside schools. The only way to judge the success of middle-level education in raising student achievement is to examine middle-level practices and their relationship to student achievement.

The New York State Education Department offers a detailed definition of middle-level education in its publication *Essential Elements of Standards-Focused Middle-Level Schools and Programs* (2003a). Although not enforced, this requirement is codified in the regulations of the state: "Districts shall ensure that the middle-level program is aligned with the Regents policy statement on middle-level education and the State Education Department's essential elements of standards-focused middle-level schools and programs" (New York State Education Department, 2010a). *Essential Elements of Standards-Focused Middle-Level Schools and Programs* (hereafter referred to as *Essential Elements*) lists seven elements, each of which is supported by a number of details. These essential elements (meaning the actual elements, as opposed to the publication) are programmatic components that describe the term "middle-level practices" for the purposes of this study. Because the *Essential Elements* are included in the regulations in New York State, the *Essential Elements* comprise the de facto construct that middle schools in New York State are expected to follow.

Other constructs for middle-level schools exist, perhaps most notably the ones provided by the National Middle School Association's publication *This We Believe* (2003), and by the National Association of Secondary School Principals (2006) in its *Breaking Ranks in the Middle*. While these documents have great utility for middle-level educators, *Essential Elements* provides the guidelines that must be followed by middle-level schools in New York State as stated in Part 100.4 of the Commissioner's Regulations. The essential elements are listed in Table 1 (see Appendix A for a more detailed account).

Table 1

*A list of the Essential Elements of Standards-Focused Middle-Level Schools and Programs*

| Essential element | Description |
|---|---|
| Essential element one: philosophy and mission | A philosophy and mission that reflect the intellectual and developmental needs and characteristics of young adolescents (youth 10–14 years of age). |
| Essential element 2: educational program | An educational program that is comprehensive, challenging, purposeful, integrated, relevant, and standards-based. |
| Essential element 3: organization and structure | An organization and structure that support both academic excellence and personal development. |
| Essential element 4: classroom instruction | Classroom instruction appropriate to the needs and characteristics of young adolescents, provided by skilled and knowledgeable teachers. |
| Essential element 5: educational leadership | Strong educational leadership and a building administration that encourage, facilitate, and sustain involvement, participation, and partnerships. |
| Essential element 6: a network of academic and personal support | Every young adolescent needs access to a system that supports both academic achievement and personal development. |
| Essential element 7: professional learning | Professional learning and staff development for all staff that are ongoing, planned, purposeful, and collaboratively developed. |

The question that arises, then, at least for New York State, is whether or not the practices included in *Essential Elements* have a positive effect on student achievement. Although relatively little research in this area has been done, two studies conclude that there is a demonstrable relationship between the extent of implementation of the essential elements and student achievement. In 2000, a positive correlation was identified between the extent of implementation of the essential elements and student achievement as measured on the *New York State Intermediate Assessments in Mathematics and English Language Arts* (Payton & Zeller).

The data displayed in Table 2 indicate more extensive implementation of each essential element in higher performing schools than in lower performing schools. The assessment of the extent of implementation was based on the observations of teams of trained visitors who visited identified schools in order to assess the extent to which the *Essential Elements* had been implemented.

Table 2

*Degree of Implementation of Essential Elements*

| Essential Element | Degree of implementation in higher performing schools | Degree of implementation in lower performing schools | Difference |
|---|---|---|---|
| Essential element one: philosophy and mission | 4.93 | 1.76 | 3.17 |
| Essential element 2: educational program | 4.72 | 1.84 | 2.88 |
| Essential element 3: organization and structure | 4.94 | 2.16 | 2.78 |
| Essential element 4: classroom instruction | 4.71 | 2.18 | 2.53 |
| Essential element 5: educational leadership | 5.22 | 2.58 | 2.65 |
| Essential element 6: a network of academic and personal support | 4.87 | 2.23 | 2.65 |
| Essential element 7: professional learning | 5.14 | 2.35 | 2.79 |
| Average for the seven essential elements | 4.92 | 2.19 | 2.73 |

*Note:* Payton and Zeller, 2000.

A subsequent study with similar methodology controlled for the resource levels of the schools and came to the same conclusion: that the extent of implementation of the essential elements is positively correlated with student achievement (Payton, 2001). Both of these studies

show that, in schools that more thoroughly implemented the essential elements, according to the observers in the study, achievement was higher than it was in schools that did not. The data expressed in Table 3 also show that schools with high achievement had more extensively implemented the essential elements than lower achieving schools in each of the four levels of school needs and resources.

Table 3

*Degree of Implementation of Essential Elements, Controlled for Need/Resource Category*

| **Need/resource category** | **Degree of implementation in high performing schools** | **Degree of implementation in low performing schools** | **Difference** |
|---|---|---|---|
| High need urban/suburban | 3.76 | 2.92 | 0.84 |
| High need rural | 3.82 | 2.39 | 1.43 |
| Average need | 4.64 | 3.33 | 1.31 |
| Low need | 5.40 | 3.99 | 1.41 |
| Average | 4.41 | 3.16 | 1.25 |

*Note:* Adapted from Payton, 2001.

The results of these two studies did not dampen controversy about middle-level practices, perhaps because the media and the general population were unaware of this research. Although organizations like the New York State Middle School Association have disseminated the results of such research studies throughout the state, their audience consists primarily of middle-level educators.

New research seems to be warranted. Using new technologies, another study might be able increase the scope and sample size in order to assess the relationship between student achievement and middle-level practices, yielding inferences with greater statistical significance and power. Such a study would shed new light on the controversy about middle-level practices and might also provide guidance to middle-level schools throughout the state (and beyond) about which practices are most effective. The study would also answer two questions: To what extent have the essential elements been implemented in New York State? Is there a difference in student achievement in schools where the essential elements have been implemented?

In response to those questions, this research study was designed to explore the extent of the extent of implementation of middle-level practices as defined in the *Essential Elements of Standards-Focused Middle-Level Schools and Programs* and identify relationships between the extent of implementation of the essential elements and student achievement. Through a survey of middle-level principals across the state and a comparison of the resulting data with student achievement data, the questions about middle-level practices and student achievement were investigated. Data were gathered using electronic and traditional means of contact, including e-mail, and an online survey. The researcher had contacts across the state through his leadership work on boards of the New York State Middle School Association and the New York State Middle-Level Liaisons Network. Indeed, both of these groups expressed interest in the results of the study and encouraged participation in the regions they represent. Information about student achievement was available from the State Education Department school databases. A straightforward comparison between the survey data and student achievement was facilitated with common statistical procedures. The study was intended to provide specific evidence about which middle-level practices, as described in *Essential Elements*, are more closely correlated

with student achievement, and to make recommendations to practitioners about programming and practices.

The genesis of this study can be traced to this researcher's involvement in middle-level education in New York State. As a middle-level teacher and administrator for more than twenty years, the author of the study was involved in the identification and the extent of implementation of the *Essential Elements of Standards-Focused Middle-Level Schools and Programs*. As a member of the Statewide Network of Middle-Level Liaisons and as a director and officer in the New York State Middle School Association, the author was an active participant in the development of the *Essential Elements* and the subsequent protocols and resources that were constructed to help schools learn about and implement the *Essential Elements*. These resources included processes schools could use to review their practices and plan for changes. Professional development was planned and delivered through regional meetings, statewide conferences, and through the Middle-Level Academy of which the author of this study was both an author and instructor. While the *Essential Elements* and accompanying resources were all research-based, the body of research was not as large as it might be nor was it as tailored to New York State as some educators desired. If a study could be conducted in New York, where the *Essential Elements* were the official construct for middle-level education, that compared middle-level practices to student achievement, it would provide additional guidance for middle-level practice. If the extent of implementation of the *Essential Elements* could be explicitly connected to the primary measures of student achievement in New York State, schools would better be able to make programmatic and organizational decisions. This research was planned to investigate the relationship between student achievement and the extent of implementation of the Essential

Elements that is chronicled in this monograph, thus putting the *Essential Elements* to the test to determine if they are, indeed, connected to student achievement.

# CHAPTER 2

## Literature Review Part One: Middle-Level Constructs

### Introduction

For as long as public education has been widespread in the United States, there have been different views about how to organize schools and programs. Elementary grades have been traditionally organized such that students spend most of their day together in one classroom. High schools have often been organized into discreet periods of time for different subjects, with students moving from one subject to the next. Over the past century, schools for 9- to 14-year-olds have looked sometimes like elementary schools, sometimes like high schools, and sometimes like a hybrid of the two, depending on which approach was in favor.

### Historical Organization of Middle-Level Education

As the population of the United States shifted from thinly settled agrarian areas to towns and cities, the organization of public schools evolved. Early schools were small, and differentiated grade patterns were not common (George & Alexander, 1993). As population centers grew, so did the schools located in them. Grammar schools, finishing schools, academies, and high schools emerged. According to Alexander and George, as schools became increasingly organized, an 8–4 structure (elementary school consisting of eight years and high school of four) predominated.

Early in the 20th century, the idea of a separate school between the elementary and high school took root. The first separate schools for students aged 9 to 14 began in 1909–1910 in Columbus, Ohio, and Berkeley, California (Clark & Clark, 1993). Soon after these schools were established, the idea of separate schools quickly spread in the more densely populated areas of the country. There were 2,000 such schools by 1925 and 10,000 by 1947 (Hansen & Hern, 1971,

as cited in Clark & Clark. 1993). Another way to look at this rapid growth is to consider that 80% of students were educated in an 8–4 (or 7–4) structure in 1920; just forty years later, 20% of students experienced the 8–4 structure (George & Alexander, 1993). Accompanying this growth was the widespread development of textbooks and other resources as well as the inevitable development of laws and regulations (Clark & Clark, 1993).

During this period of growth, many districts moved grades 7 to 9 into buildings separate from the elementary and high schools, thus creating a 6–3–3 structure (George & Alexander, 1993). A driving force in this reorganization was overcrowding at both the elementary and high school levels (George & Alexander, 1993). Another reason for creating these "junior high schools" was to emphasize the needs of early adolescents (Clark & Clark, 1993). Clark and Clark (1993) reported that the "'Seven Cardinal Principles" broadened the scope of educational aims beyond subject mastery to include citizenship, vocation, family membership, and leisure activities" (p. 449). John Lounsbury credits junior high schools with several significant contributions: the expansion of the curriculum beyond the core subjects to include foreign languages, laboratory science, industrial arts, and home economics; the incorporation of guidance and counseling functions; extracurricular opportunities and school-sponsored clubs; and deliberate attention to socialization (1993). The junior high model had become common by the 1920s and was meeting a variety of student-centered goals.

Yet, as the century progressed, concerns over the junior high school configuration began to emerge. Departmentalization into an organizational structure based on different subjects, as in high schools, started to become a primary organizational characteristic of the junior highs, and some educators were beginning to question whether this was appropriate for early adolescents (Clark & Clark, 1993). In 1954, the Association for Supervision and Curriculum Development

(ASCD) released an influential publication that was critical of junior high schools' organization and insensitivity to student needs:

> This [junior high school] type of organization provides too abrupt a change from the self-contained classroom of the elementary school, too little relationship between the subjects and interests and needs of young adolescents, and too little time for any teacher to carry out the varied type of program needed by young adolescents. (George & Alexander, 1993, p. 26)

The criticisms were amplified in ASCD's 1961 publication *The Junior High School We Need*. The report also indicated how improvements to schools could be undertaken under the direction of professional leadership and with the help of communities who care about their local junior high schools (Association for Supervision and Curriculum Development, 1961).

In an analysis of the decline of junior high school as an organizational option, Lounsbury (1992) identifies the qualities of junior high schools that led to the dissatisfaction with the model and resulting calls for change: too great a similarity to high schools; a lack of specific policy and regulation directing its programs; overwhelming departmentalization; poor facilities; and inadequately prepared teachers. Clark and Clark identify widespread tracking in ability groups, which accompanied departmentalization, as a reason for concern with the junior high school model (1993). For these reasons, and perhaps because society, too, was changing, the beginning of the 1960s heralded another shift in the structures and patterns for the education of early adolescents.

By the mid-1960s, concerns about the junior high school model had become commonplace, and there was a growing consensus that junior high schools were not fulfilling their promise for young adolescents (Clark & Clark, 1993). In fact, an entire issue of a 1965

*Educational Leadership* bore the title, "Junior High School: Transition in Chaos?" The issue was filled with articles about junior high school structures, unfulfilled promises, and the characteristics and needs of young adolescents. It was also in 1965, just before publication of the *Educational Leadership* issue, that William Alexander gave a speech in which he made one of the first known references to a new model for schools: middle school (Rozenweig, 1997).

The following list is one of the first descriptions of the school organization now labeled middle school, although many of its characteristics are applicable to all levels, not just the middle level (Alexander & Williams, 1965):

- A real middle school should be designed to serve the needs of older children, preadolescents, and early adolescents,
- A middle school organization should make the reality of the long-held ideal of individualized instruction,
- A middle school program should give high priority to the intellectual components of the curriculum,
- A middle school program should place primary emphasis on skills of continued learning,
- A middle school should provide a rich program of exploratory experiences,
- A program of health and physical education should be designed especially for boys and girls in the middle school years,
- An emphasis on values should underlie all aspects of a middle school program, and

- The organization of a middle school should facilitate most effective use of the special characteristics and interests of the teaching staff. (pp. 219–221)

In 1966, Donald Eichhorn published *The Middle School*, which is also credited as one of the groundbreaking descriptions of middle schools (Clark & Clark, 1993). At the same time that these milestone publications were gaining acceptance, middle schools and middle-level programs were popping up all over the country, from New York to California and from Illinois to Florida (George & Alexander, 1993). According to George and Alexander, rapid growth followed: by the end of the 1960s, there were more than 2,000 middle-level schools throughout the country.

While some of these school reorganizations were driven by the developmental needs of students and by unsuccessful junior high programs, other reasons contributed to the explosion of 6–8 and 5–8 school grade organizations. Overcrowding at both the elementary and high school was eased by the creation of more middle schools (George & Alexander, 1993). Also, as southern schools were reorganized to achieve desegregation, middle schools were frequently included in court-ordered desegregation plans (George & Alexander. 1993).

Expansion of middle-level schools and programs continued, and by 1971 nearly one-quarter of all schools with a seventh grade were organized in either a 6–7–8 or a 5–6–7–8 configuration (Valentine & Goodman, 2005). According to Valentine and Goodman (2005), this trend of expansion continued until more than two-thirds of middle-level schools were configured in this way. As the 6–7–8 configuration became more prevalent, the 7–8–9 configuration began to disappear (George & Alexander, 1993).

In 1975, ASCD replaced their 1961 *The Junior High We Need* publication with a new publication that reflected the trends then current in school organization and the thinking about how schools should be programmatically oriented. The publication was entitled *The Middle*

*School We Need*. It is interesting to note that the 1975 document identifies a problem that has persisted until this day, that is, that schools were changing their name from junior high to middle school without significantly updating their practices to reflect the current best thinking about middle-level practices.

At approximately the same time, the National Middle School Association was formed as an outgrowth of a regional middle-level association (National Middle School Association, 1998). The fact that such an organization, dedicated to the middle level, was thriving is evidence of the spread of middle-level patterns and practices across the nation. State-level associations dedicated to middle-level education formed in many states—now there are at least 43 states that have their own middle-level organization (National Middle School Association, 2011). The specific role of the New York State Middle School Association will be discussed later in this chapter.

The number of middle-level schools and programs continued to grow through the end of the century at an unprecedented pace. George and Shewey observed that "as the 21st century looms on the horizon, the middle school movement remains the largest and most comprehensive effort at organizational and curricular change in the history of American public schooling" (1994, p. 3).

This period of rapid growth was punctuated by several significant publications that brought attention to or raised an alarm about early adolescents in the United States and their education. In 1982, the National Middle School Association issued *This We Believe,* which describes the characteristics of middle-level programs that are designed to meet the needs of early adolescents. This publication led to widespread dissemination of the authors' list of 16 characteristics of effective middle schools (National Middle School Association, 1982).

Three years later, the National Association of Secondary School Principals entered the discussion with their publication, *A Consumer's Guide to Middle-level Education*. Like *This We Believe*, this document was supposed to provide the authoritative definition of excellence in middle-level programming (Middle Level Education Council of the National Association of Secondary School Principals, 1985). The programmatic, curricular, and organizational recommendations contained in this document echoed those of the Middle Level Education Council of the National Association of Secondary School Principals (1985) and helped establish a definition of a middle school.

The conversation about early adolescents' needs and their education expanded to wider, noneducation audiences with the Carnegie Foundation's *Turning Points: Preparing American Youth for the 21st Century* (1989). This nationally publicized report introduced the general public to issues regarding middle-level education. Carnegie followed this report with *Great Transitions: Preparing Adolescents for a New Century,* which broadened the conversation that *Turning Points* began, to include all adolescents, not just early adolescents (1996). Early adolescence was again identified as a "crucial turning point," and adolescents were thought to be in need of careful and deliberate education (1996). *Turning Points* was revisited and updated in 2000 to reflect work that had been done in middle-level education during the previous decade. *Turning Points 2000* relied more heavily on research, however limited it might have been, to support its recommendations.

Also at the close of the century, the National Forum to Accelerate Middle Grades Reform mobilized to influence middle-level education and maintain progress toward goals of academic excellence, developmental responsiveness, social equity, and organization (National Forum to Accelerate Middle Grades Reform, 2011). The National Forum included representatives from

many professional associations and funding from a variety of foundations (2011). They developed the Schools-to-Watch program, which both recognized good middle-level programs and disseminated information about their principles of effective middle-level education; the first four middle schools were identified as "worth watching" in 2000. Nineteen states now have a state-based program that mirrors the national Schools-to-Watch program (2011).

One large-scale reform effort for middle-level education came from the National Association of Secondary School Principals in 2006, based on the widely utilized Breaking Ranks strategy of high schools: *Breaking Ranks in the Middle: Strategies for Leading Middle Level Reform*. It was advertised as "a field guide to school improvement" (National Association of Secondary School Principals, 2006, p. v). Nine strategies were listed in the *Breaking Ranks* guide, including such strategies as rigorous standards, organizational structures, interdisciplinary teams, and comprehensive professional development (2006). The guide was distributed widely to all middle schools and all high schools in the country. A professional development component accompanied the release of the guide.

As expansion of middle schools and middle-level programs continued in the second half of the 21st century, the expansion was not without controversy. A dramatic criticism of middle schools, based on declining achievement in a district in Maryland, received national attention when it appeared in *Education Week* (Bradley, 1998). Even the title of the article was designed to provoke emotion: "Muddle in the Middle." In that article, Bradley connects declining academic achievement to a curriculum that was too broad and not deep enough for rigorous study. He reports that a group of parents was upset over the changes in the middle school that caused the decline in student achievement.

Questions about the effectiveness of middle schools emerged nationally with the 2000 release of the results of the Third International Mathematics and Science Study (TIMSS-RR), which categorized the science and mathematics achievement of eighth graders in the United States as subpar (Erb, 2001). The analysis of videos that documented teaching practices in different countries indicated instruction in math and science in the United States, including eighth grade, needed dramatic change (Erb, 2001).

Soon after the TIMMS-RR study made headlines, a widely read article in the *Middle School Journal*, "Reinventing the Middle School," compounded concerns by identifying six factors that had led to the incomplete implementation of middle-level components (Dickinson & Butler, 2001). The authors suggest that many schools changed their name to middle school, but did not change the practices within the school. They give six reasons for what they labeled as "arrested development" of the middle-level movement:

1. An incremental improvement model that led to few changes being implemented slowly
2. The lack of changes in teacher preparation programs and certification paths
3. A focus on organization and structure of schools to the detriment of a focus on curricula and standards
4. A leadership failure on the part of the National Middle School Association
5. The lack of research to identify the positive impact of the middle-level model
6. Failure to implement the entire middle-level model as a whole rather than as individual components.

Unless these issues were addressed, en masse, criticism would continue according to Dickinson and Butler (2001).

Just a month later, the apparent "arrested development" of middle schools was addressed in a monograph entitled, "The Misdirection of Middle School Reform" (Bandlow, 2001). The paper argues that too much time was being spent in middle schools on social/emotional issues and not enough attention was being paid to academic issues. Bandlow (2001) added to the "growing body of critics" (p. 69) with his own criticism of the middle school model. He did not suggest that the middle school model be abandoned wholesale; rather he argued that academic achievement, particularly in math and science, must receive a greater emphasis than social and emotional support.

A large study funded by the Rand Corporation was released in 2004. This comprehensive study attempted to settle the question of the effectiveness of middle school reform:

> The reputation of U.S. middle schools today leaves in doubt whether these schools serve teens well. Middle schools have been called the Bermuda Triangle of education and have been blamed for increases in behavior problems, teen alienation, disengagement from school, and low achievement. (p. xv)

The study identifies measures showing that, in addition to low math and science test scores, middle school students were doing poorly on other state and national assessments (Juvonen, et al., 2004). The study also cites persistent achievement gaps, although there might have been some modest achievement increases and modest closing of the gaps. According to these authors, the effectiveness of middle-level programs and interventions depends on how those elements fit with the overall culture of the school and the depth of implementation of such programs as flexible scheduling, advisory programs, and interdisciplinary team teaching (Juvonen, et al., 2004).

In 2005, two critiques garnered national attention. First, *Time* magazine asked the question: "Is Middle School Bad for Kids?" Like the headlines of the reports and position papers detailed above, the very title of this article implies that middle schools are, indeed, bad for kids. The article reiterated what the other studies said about the achievement shortcomings of middle schools and added anecdotal fuel to the fire. The article asked: "How did middle schools, which were ushered in with such fanfare 25 years ago, fall into such disrepute?" (p. 3). A frequent response to inadequate achievement was a call for K–8 schools and an abandonment of the 6–8 or 5–8 middle-level configuration. The article concluded that a knee-jerk response might be foolhardy–that what goes on in school is what really matters.

The other report of 2005, again with a loaded title, appeared a month after the *Time* article. In this instance, the title "Mayhem in the Middle" evoked images of chaotic and unproductive middle school environments with early adolescents running amok. This report claimed that "academic achievement plummets between the fourth and eighth grades" (p. i). This opening statement set the tone for a monograph that was highly critical of middle schools and suggested that a thorough reform of middle-level education was warranted (Yecke, 2005). In this article, data are used to illustrate the academic failure of middle schools, and the same questioning of grade configuration was recycled. More so than other critical reports, however, Yecke's (2005) report did not concede that incomplete or imperfect implementation of the middle school model might be a partial explanation for the less-than-desired achievement results. Yecke stated that "middle schoolism must end" (2005, p. iv).

So, what is and where is the middle-level reform agenda? Is middle-level education coming to an end? These are the questions being asked by educators and policy-makers on a

national level. What is the story in New York State? The following examination of middle-level reform in New York State will identify both parallels and departures from the national story line.

**Middle-Level History/Organization in New York State**

The maturation of the middle-level movement in New York State parallels the evolution of middle-level education nationally. In fact, the 1965 speech referenced earlier in this chapter, in which William Alexander first used the "middle school" label, occurred at Cornell University in Ithaca, New York (Rozenweig, 1997). As enrollments increased in many New York schools during the 1960s, districts elected to increase capacity from the middle with middle-level schools, just as they did in pockets across the country.

For example, Jamesville-DeWitt Middle School, located in a suburb of Syracuse, constructed a school in 1968 that was designed to reflect middle-level programmatic and organization premises (P. Smith, personal communication, April 15, 2011). The school was built with school-within-a-school structures and was actually labeled as a middle school from its conception. Another early middle school in New York State was Alton U. Farnsworth Middle School, located in Guilderland (a suburb of Albany), which was deliberately built with a middle-level philosophy in 1970 (J. McGuire, personal communication, April 26, 2011).

Each of these schools was listed in the first edition of *The Exemplary Middle School* (Alexander & George, 1981). That same volume describes a pilot implementation of a middle-level approach that began in the fall of 1969 in Briarcliff, New York. Other middle schools in New York are mentioned, including Ballston Spa Middle School and Hedrick Hudson School in Montrose (Alexander & George, 1981). These examples show that, prior to 1981, middle-level schools were being implemented in different locations in the state. Just as the pace of

reorganization quickened nationally during the 1970s, the same occurred in New York State, as evidenced by a statewide survey in 1982 indicating that at least 72 districts had changed their grade-level pattern in recent years (New York State Education Department, 1983). Table 4 describes enrollment trends over several decades. Dramatic change is evident in both the 6–8 and 5–8 configurations.

Table 4

*Grade-Level Reorganization in New York State.*

| Grade span | 81–82 | 91–92 | 01–02 | 02–03 | 03–04 | 04–05 | 23-year change (number and %) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Number | % |
| K/1–5 | 452 | 789 | 1,147 | 1172 | 1164 | 1220 | +768 | +170% |
| K/1–6 | 1,468 | 981 | 570 | 547 | 530 | 495 | -973 | -66% |
| K/1–8 | 71 | 60 | 106 | 106 | 103 | 113 | +42 | +59% |
| K/1–12 | | | | | 76 | 80 | +4 | --- |
| 5–8 | 50 | 87 | 99 | 98 | 110 | 115 | +65 | +130% |
| 6–8 | 162 | 292 | 463 | 473 | 478 | 494 | +332 | +205% |
| 6–9 | 34 | 30 | 13 | 11 | 16 | 15 | -19 | -56% |
| 6–12 | 16 | 30 | 45 | 48 | 51 | 54 | +38 | +238% |
| 7–8 | 120 | 93 | 75 | 73 | 72 | 73 | -47 | -39% |
| 7–9 | 211 | 78 | 25 | 23 | 26 | 20 | -191 | -91% |
| 7–12 | 227 | 224 | 156 | 146 | 131 | 133 | -94 | -41% |
| 9–12 | 398 | 470 | 595 | 604 | 620 | 628 | +230 | +58% |
| 10–12 | 109 | 36 | 21 | 16 | 15 | 16 | -93 | -85% |

*Note*: Adapted from New York State Middle School Association (2005).

In 1980, a professional association dedicated to middle-level education was formed: the New York State Middle School Association (Kane, 2001). The group held their first conference in 1981 in Albany, and their journal, *In Transition*, has been published continually since 1984. Many of the leaders of the state association also provided leadership to the National Middle School Association (Kane, 2001).

The State Education Department of New York, "in response to requests from local school districts," actively demonstrated its support of middle-level education in New York with the

publication in 1983 of the *Resource Monograph on Grade-Level Organization*. David Payton, a principal author of the publication, was tapped by the State Education Department soon after that to provide school districts with information about early adolescence and middle-level education. The resulting publication, *Resource Monograph on Middle Level Students,* provided districts in New York State with a summary of reorganization trends, along with a summary of the research about middle-level students. While not providing regulatory instructions to school districts to adopt a middle-level philosophy, the publication does conclude that "it is critical for schools and school personnel to keep abreast of current developments related to the nature of adolescence and adolescents. Only in this way can they assure that each will receive an optimum learning experience" (New York State Education Department, 1984, p. 27).

Regulatory changes that followed redefined the requirements for grades 7 and 8 (Payton, 2004). "In an effort to inject additional rigor and purpose into the middle-grade program . . . the Board of Regents undertook a sweeping revision of [regulation]" (Payton, 2004, p. 4). The significance of this action by the Board of Regents, in addition to the obvious implications for program and requirements, is that the top level of educational leadership in the state clearly recognized the changing nature of the education of early-adolescents.

Even more significant than the regulatory changes was the issuance of the "Regents Policy Statement on Middle Level Education and Schools with Middle Grades" (New York State Education Department, 1989). This document expressed in no uncertain terms the importance of an approach to middle-level education that was based on the needs and characteristics of 10- to 14-year-olds. In it, the Regents stated that "middle-level education is different from education in the elementary grades and the education in the high school," and "school should not simply impose an elementary or high school orientation and structure on middle-level students, but

should look carefully at the needs of middle-level students and the organization of middle-level education" (New York State Education Department, 1989, p. 1). The Regents Policy Statement, since updated, recognized the needs of early adolescents and made a number of detailed recommendations for school programs and organization that could respond to those needs. The categories included in the document, listed below, presaged most of those that would later become the primary organizing categories for *Essential Elements of Standards-Focused Middle-Level Schools and Programs*:

- The transition from childhood to adolescence
- Philosophy and mission
- Educational program
- Organization and structure
- Classroom instruction
- Student support
- Professional training and staff development (New York State Education Department, 1989)

During the same year, the State Education Department was reorganized to include a department entitled Office of Elementary, Middle, Secondary, and Continuing Education. The fact that the department reorganized in this way is further evidence that middle-level education was firmly rooted in New York State.

To accompany the reorganization in the State Education Department and to support middle-level efforts across the state, the Statewide Network of Middle-Level Liaisons was created in 1989. This network was comprised of representatives from each of the Boards of Cooperative Educational Services (BOCES) and the big cities in the state. It met twice each year,

in Albany, to act as a link between the State Education Department and middle-level educators across the state. In later years, the liaisons defined their role with their mission statement: "As representatives of statewide middle-level education, our purpose is to advocate for middle-level needs, inform [the State Education Department] about middle-level issues, and collaborate with [the State Education Department] on matters that impact Middle-level Education" (New York State Middle Level Liaisons Network, 2008). In the years following its formation, the network helped author *Essential Elements of Standards-Focused Middle-Level Schools and Programs* and the rubrics that accompanied those *Essential Elements*; network members assisted with research and participated in the *Essential Elements: Schools-to-Watch* school recognition program.

The recognition of the importance of middle-level education was not unique to middle-level educators. Later in the same year that the Regents Policy Statement was adopted, the New York State Council of Educational Associations (NYSCEA) published the monograph *Middle-level Education . . . The Challenge*. Representing 37 statewide educational organizations and professional associations in New York, NYSCEA considered it important to support the Regents Policy Statement with position papers from a variety of disciplines, from mathematics to Latin to music to science (New York State Council of Educational Associations, 1989). The first chapter in the monograph consists of a reprinting of the Regents Policy Statement; authors from the different educational associations wrote the subsequent chapters. Uniting the discipline-specific perspectives was the shared belief that "middle-level education is different from education in the elementary grades and in the high school, because these students are experiencing a unique phase of life, the change from childhood to adolescence" (p. 1).

Early in the 1990s, a series of publications by the New York State Education Department provided support and guidance to middle-level programs across the state. The two-volume

*Promising Programs and Practices in Middle Level Education* was released, offering descriptions of practices in schools in New York State, along with contact information so that the schools could be asked for further information (New York State Education Department, 1990, 1996a). These publications were organized under two general headings: School Structure and Organization, and Classroom Instruction. Each general heading was subdivided into seven areas, each addressing different components of middle-level programs and practices. The volumes also contained directories of schools that had been recognized nationally or at a state level so that they, too, could be contacted for further information about their programs and practices (New York State Education Department, 1990).

Another publication that was provided by the State Education Department recognized that middle-level implementation might look a little different in smaller rural districts than it did in larger suburban and urban districts. This document, *Implementing Middle Level Education in Small Rural Schools*, provided information about early adolescence, middle-level research, leadership, and advice for implementation in rural schools (New York State Education Department, 1995).

During the early 1990s, New York was one of 11 states that collaborated with the Carnegie Corporation in identifying best practices in middle-level education (David Payton, personal communication, June 27, 2011). This collaboration explained the similarity between the national *Turning Points* publication from the Carnegie Corporation and the publications from the New York State Education Department.

As the importance of a strong mission and vision for middle-level schools and programs became evident, the New York State Education Department released a publication specifically intended to help schools identify their own middle-level mission and vision: *Developing a*

*Mission Statement for a Middle Level School* (New York State Education Department, 1996b). It stated that

> without a clearly defined mission or purpose that has the support of the extended school community, middle-level schools will be without long-term direction, constantly reacting and responding to external pressures from various and often competing special interest groups. (New York State Education Department , 1996b, p. 1)

This document provided step-by-step suggestions for crafting a mission statement for middle-level schools and programs. It included examples of mission statements from other middle-level schools in the state.

In 1997, a program was introduced that provided a mechanism for peer review and feedback to middle-level programs. The New York State Middle-Level Review Program involved teams of practicing middle-level educators who visited and examined a school's middle-level program and then provided feedback (New York State Education Department, 1997). The effort was a collaborative venture between the State Education Department, the Middle-Level Liaisons Network, and the New York State Middle School Association. It was not a formal accreditation program; rather it provided a protocol that middle-level schools could follow in carrying out a structured review of their program and practices, and in making school improvement efforts.

At the same time that the review program was initiated, a comprehensive professional development curriculum for middle-level educators was introduced (New York State Middle School Association, 1997). Teams of educators from both the Middle-Level Liaisons and the New York State Middle School Association developed standards and performance indicators for

a comprehensive, six-day curriculum for professional development intended to provide middle-level educators with a firm background regarding the characteristics of early adolescents and the qualities of effective middle-level schools and programs. In the years that followed, middle-level academies using that six-day professional development curriculum were conducted in different regions across the state. The New York State Middle School Association organized and sponsored the academies; the faculty for them came from the ranks of both the New York State Middle School Association and the Middle-Level Liaisons.

The dramatic increase in the number of middle-level schools during the 1990s can be attributed to the considerable support, encouragement, and guidance described in this section. It is clear that in New York State, the State Education Department, Middle-Level Liaisons, and Middle School Association were working in complementary and coordinated ways to encourage research and best-practice-based programs for early adolescents across the state. These same groups, working together, prepared the ultimate guide for middle-level education in New York: *Essential Elements of Standards-Focused Middle-Level Schools and Programs* (New York State Education Department, 2000). *Essential Elements* picked up where the 1989 Regents Policy Statement left off, providing a set of seven defining characteristics of middle-level programs (note the similarity to the categories included in the 1989 Regents Policy Statement):

1. A philosophy and mission that reflect the intellectual and developmental needs and characteristics of young adolescents (youth 10–14 years of age)
2. An educational program that is comprehensive, challenging, purposeful, integrated, relevant, and standards-based
3. An organization and structure that support both academic excellence and personal development

4. Classroom instruction appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers
5. Strong educational leadership and a building administration that encourage, facilitate, and sustain involvement, participation, and partnerships
6. A network of academic and personal support available for all students
7. Professional learning and staff development for all staff that are ongoing, planned, purposeful, and collaboratively developed. (New York State Education Department, 2003)

Each of the seven essential elements was accompanied by a specific list of characteristics. Together they provided a detailed blueprint for schools that reflects research and best practices. Eventually, the essential elements were codified in Part 100.4 of the Commissioner's Regulations: "Districts shall ensure that the middle-level program is aligned with the Regents policy statement on middle-level education and the State Education Department's essential elements of standards-focused middle-level schools and programs" (New York State Education Department, 2010a). The *Essential Elements* also reflected national descriptions of good middle-level education. A discussion of the national constructs and a detailed explanation of the essential elements follow later in this chapter.

A pair of research studies was conducted to examine the relationship between the essential elements and student achievement (Payton & Zseller, 2000; Payton, 2001). These studies, discussed in the final section of this chapter, identify a positive relationship between the extent of implementation of the essential elements and student achievement.

Since the release and codification of the essential elements, a number of strategies and initiatives have been delivered to the middle-level education community to encourage and ensure the fidelity of implementation of the essential elements. A Statewide Network of Middle-Level Education Support Schools was identified in 2003; other schools could turn to the network's participants for advice. The network of support schools also published rubrics, a detailed description of the essential elements, and scales of implementation that schools could use to examine their middle-level programs and practices (New York State Middle School Association, 2004). A set of three protocols was prepared for schools and districts to follow in examining their middle-level program (New York State Middle School Association, 2006). These protocols walked educators through an awareness stage, an assessment stage, and a school improvement planning stage. As a result of following the protocols, schools would be well on their way toward faithful implementation of the essential elements.

New York worked with the National Forum to Accelerate Middle-Grades Reform's Schools-to-Watch recognition program, aligning that national construct for middle-level education and *Essential Elements*. Since 2004, the *Essential Elements*: *Schools-to-Watch* program in New York State has recognized 27 middle schools, based on evidence of essential elements implementation and student achievement records (New York State Middle School Association, 2011). While this program's obvious result is the recognition of schools, it also operates as a mechanism for supporting and encouraging schools to implement *Essential Elements*. Recognized schools regularly write and present about their experiences and, in fact, are obligated to share their experience and open their schools to visits. This program, along with the many others described here, has contributed to the expansion of middle-level education in New York State.

**Middle-Level Constructs**

As middle-level education spread across the country and as it received more attention in higher education and in the policy world, different models for middle-level education appeared. Most of the most popular models, or constructs, of middle-level education share many of the same features, and they vary only slightly. In general, the constructs emphasize both the academic needs of early adolescents and the social, emotional, physical, and personal needs. It is important to explore the most influential of the national models in order to better understand the "official" construct for New York State, based on *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.

The first significant conceptualization of a middle-level construct, from the National Middle School Association, was in a publication called *This We Believe* (1982). The document stated the need for developmentally responsive schools, that is, schools designed to respond to the needs and characteristics of the students who attend them, as opposed to a discipline-based design. The document identified students as the focus of middle-level schools: "Simply stated, the middle school is an educational response to the needs and characteristics of youngsters during [early adolescence], and as such, deals with the full range of intellectual and developmental needs" (p. 9). After making the case for schools based on students' needs rather than on subject areas or on a high school configuration, *This We Believe* identified the following elements of its construct:

1. Educators knowledgeable about and committed to [early adolescents]
2. A balanced curriculum based on [early adolescent] needs
3. A range of organizational arrangements
4. Varied instructional strategies

5. A full exploratory program
6. Comprehensive advising and counseling
7. Continuous progress for students
8. Evaluation procedures compatible with nature of [early adolescents]
9. Cooperative planning, and
10. Positive school climate. (National Middle School Association, 1982)

It is important to note that these elements were not intended to stand independently; rather, they were dependent on each other, and a comprehensive application of all of them was a key aspect of the *This We Believe* construct:

> Just as the whole is more than the sum of its parts, so an effective middle school is more than just the sum of 10 relatively discrete elements, no matter how essential. The school is a social organism, and each element impacts all the others, either positively or negatively. (National Middle School Association, 1982, p. 16)

*This We Believe* had an impact on middle-level education nationally:

> Following its release, [the] paper had a far-reaching impact on middle-level education. It quickly became the most frequently cited statement about the education of young adolescents and was reprinted seven times to meet the demand for its content. (National Middle School Association, 2003, p. ix)

The publication was reissued in a new format in 1992 and reprinted an additional five times (National Middle School Association, 2003).

The National Middle School Association issued a third version of *This We Believe* in 1995 (National Middle School Association, 2003). This new version was longer than its predecessor and went into greater detail about how middle-level schools ought to be organized

around the students. The qualities and characteristics of school organization received more emphasis than the description of the characteristics and needs of early adolescents, thus providing a clearer roadmap for schools intending to implement the middle-level construct. These are the elements that the 1995 version lists as essential to a good middle-level program:

> Developmentally responsive middle-level schools are characterized by:
>
> 1. Educators committed to young adolescents
> 2. A shared vision
> 3. High expectations for all
> 4. An adult advocate for every student
> 5. Family and community partnerships, and
> 6. A positive school climate.
>
> Therefore, developmentally responsive middle schools provide:
>
> 1. Curriculum that is challenging, integrative, and exploratory
> 2. Varied teaching and learning approaches
> 3. Assessment and evaluation that promote learning
> 4. Flexible organizational structures
> 5. Programs and policies that foster health, wellness, and safety, and
> 6. Comprehensive guidance and support services. (National Middle School Association, 2003, p. 11)

Like the earlier versions, this publication reached audiences across the country and became the most widely used document about middle-level education in history (National Middle Schools Association, 2003). With more than 350,000 copies being distributed, the impact this list of

school characteristics had on schools everywhere should not be underestimated (National Middle School Association, 2003).

A fourth version of *This We Believe* was published in 2003 (National Middle School Association). Connections were made to emerging research about early adolescents and successful middle-level programs. The 2003 version was organized like its immediate predecessor but emphasized higher academic expectations and rigor along with an increased emphasis on leadership:

> Successful schools are characterized by a culture that includes
>
> 1. Educators who value working with this age group and are prepared to do so
> 2. Courageous, collaborative leadership
> 3. A shared vision that guides decisions
> 4. An inviting, supportive, and safe environment
> 5. High expectations for every member of the learning community
> 6. Students and teachers engaged in active learning
> 7. An adult advocate for every student, and
> 8. School-initiated family and community partnerships.
>
> Therefore, successful schools provide:
>
> 1. Curriculum that is relevant, challenging, integrative, and exploratory
> 2. Multiple learning and teaching approaches that respond to diversity
> 3. Assessment and evaluation programs that promote quality learning
> 4. Organizational structures that support meaningful relationships and learning
> 5. School-wide efforts and policies that foster health, wellness, and safety, and

6. Multifaceted guidance and support services. (National Middle School Association, 2003, p. 7)

It is safe to say that the four editions of *This We Believe*, with their wide distribution, constituted the most-used construct for middle-level education. The Middle School Association promoted *This We Believe*—and middle-level education—as very important: "The importance of middle-level education can never be overstated. Lives are at stake" (National Middle School Association, 2003, p. 35). Whether or not this statement was a little too dramatic, for most of the country and thousands of middle-level schools, this construct of middle-level education is the one they have used to guide their school planning and improvement efforts.

Between the first and second editions of *This We Believe*, another professional association, the National Association of Secondary School Principals, published its own set of recommendations for middle-level education in a document entitled *An Agenda for Excellence at the Middle Level* (1985). Instead of calling their key components elements, they were termed dimensions. Nevertheless, the idea was the same: middle-level schools needed to pay attention to certain programmatic or curricular components in order to meet the needs of early adolescents:

1. Core values
2. Culture and climate
3. Student development
4. Curriculum
5. Learning and instruction
6. School organization
7. Technology
8. Teachers

9. Transition

10. Principals

11. Connections, and

12. Client centeredness. (National Association of Secondary School Principals, 1985)

There were many similarities between this construct and that of *This We Believe*. In addition to these two documents, a third influential publication was prepared in 1989 by the Carnegie Foundation's Carnegie Council on Adolescent Development: *Turning Points: Preparing American Youth for the 21st Century*.

There were some significant differences between *Turning Points* and the two big middle-level constructs. First, the source of the report was different. In this case, a philanthropic foundation was studying middle-level education and making recommendations not only to educators but also to the population as a whole. This report did not have an inside-education perspective. Rather, it looked from the outside. A second significant difference between this report and the other two is that it was the first publication to invite the general public to question the performance of middle-level schools:

> Many middle grade schools today fall far short of meeting the critical educational, health, and social needs of millions of young adolescents. Many youth now leave the middle grades unprepared for what lies ahead of them. A fundamental transformation of the education of young adolescents is urgently required" (Carnegie Council on Adolescent Development, 1989, p. 10).

In this case, a crisis mentality was introduced to the middle-level reform effort, which created a sense of urgency. The report continued:

> The emerging adolescent is caught in turbulence, a fascinated but perplexed observer of the biological, psychological, and social changes swirling all around. In groping for a solid path toward a worthwhile adult life, adolescents can grasp the middle school as the crucial and reliable handle. Now, the middle grade school must change, and change substantially, to cope with the requirements of a new era—to give its students a decent chance in life and help them fulfill their youthful promise. (Carnegie Council on Adolescent Development, 1989, p. 14)

Again, the tone was different. So, the report resonated in the educational community and general population differently as well. Instead of a patient, reasoned rationale, *Turning Points* was a rallying cry for reform. Part of the reason for this tone was the focus in this document on high-poverty urban and rural settings where good middle-level practices were far less common than in suburban communities (Balfanz & MacIver, 2000). Social justice and equity were an overt part of the rationale for a more urgent tone.

Despite the different tone and level of rhetoric of *Turning Points*, its recommendations were not dramatically different from those of *This We Believe* or *An Agenda for Excellence*:

1. Creating a community for learning
2. Teaching a core of common knowledge
3. Ensuring success for all students
4. Empowering teachers and administrators
5. Preparing teachers for the middle grades
6. Improving academic performance through better health and fitness
7. Reengaging families in the education of young adolescents, and

8. Connecting schools with communities. (Carnegie Council on Adolescent Development, 1989)

In hindsight, these three constructs were more alike than different, which Table 5 illustrates.

Although details within the constructs are more similar than they are different, they do share a fundamental, foundational similarity that is important to recognize. These constructs were not developed as a result of experimental or quasi-experimental research that compared individuals who were subject to different treatments, such as a junior-high versus middle school approach, nor were they founded on studies that documented the effectiveness of the latter, for the simple reason that it had not yet been implemented, at least as a comprehensive model. The new constructs and comprehensive model stemmed from dissatisfaction with the results of earlier models of education for early-adolescents. While there is a solid history of literature documenting the model and its evolution, and there was empirical evidence to justify some of its elements, the comprehensive model was not the result of empirical tests. The theory necessarily preceded the evidence.

Table 5

*Comparison of Different Middle-Level Constructs*

| Construct component | ***Turning Points: Preparing American Youth for the 21st Century (1989)*** | ***An Agenda for Excellence at the Middle Level (1985)*** | ***This We Believe* (2003)** |
|---|---|---|---|
| **Mission and vision** | | Core values | A shared vision that guides decisions |
| **Culture and climate** | Creating a community for learning | Culture and climate | An inviting, supportive, and safe environment |
| **Equity and expectations** | Ensuring success for all students | Student development | High expectations for every member of the learning community |
| **Able and dedicated teachers** | Preparing teachers for the middle grades | Teachers | Educators who value working with this age group and are prepared to do so |
| **Effective leadership** | Empowering teachers and administrators | Principals | Courageous, collaborative leadership |
| **Community connections** | Connecting schools with communities, and reengaging families in the education of young adolescents | | School-initiated family and community partnerships |
| **Adult advocacy and support** | | Connections and client-centeredness | An adult advocate for every student, and multifaceted guidance and support services |
| **Quality instruction** | | Learning and instruction | Students and teachers engaged in active learning, and multiple learning and teaching approaches that respond to diversity |
| **Curriculum** | Teaching a core of common knowledge | Curriculum | Curriculum that is relevant, challenging, integrative, and exploratory |
| **Student well-being** | Improving academic performance through better health and fitness | | School-wide efforts and policies that foster health, wellness, and safety |
| **School organization** | | School organization | Organizational structures that support meaningful relationships and learning |
| **Transition** | | Transition | |
| **Technology** | | Technology | |

Other constructs for middle-level education shared many of the same components, such as the construct proposed by the Southern Regional Education Board in 1999: *Leading the Way: State Actions to Improve Student Achievement in the Middle Grades*. Their comprehensive framework included most of the items in the other constructs but emphasizes the systematic availability of extra help and time for students in order to allow all students to be successful: "Students learn in different ways and at different rates. They need enough time and help to meet more rigorous, consistent standards for all eighth-graders" (Southern Regional Education Board, 1999, p. 20).

Just as *This We Believe* was revisited through the years and updated, so too was *Turning Points*. *Turning Points 2000: Educating Adolescents in the 21st Century* elaborated upon the earlier recommendations from the Carnegie Council. The newer version also investigated the implementation of the original *Turning Points* document and asked if there had been an impact on middle-level education and student learning (Jackson & Davis, 2000). The report concludes:

> *Turning Points* provided a much-needed framework of principles and related practices that together form a powerful approach to middle-grades education. Thousands of schools have used the report to begin their hopeful, arduous journey toward more powerful learning environments for young adolescents. Progress has been made, but there is much, much more ground to cover. (Jackson & Davis, 2000, p. 6)

The components of *Turning Points* were affirmed in the 2000 report, with a repeated emphasis on the need to attend to poor urban and rural areas where the report states that positive changes still had not yet occurred on a large enough scale.

Not wanting to be left out of the trend of reissuing, updating, and revising previous recommendations and middle-level constructs, the National Association of Secondary School Principals published *Breaking Ranks in the Middle: Strategies for Leading Middle Level Reform*, in 2006. Rather than just updating their earlier *Agenda for Excellence*, however, the National Association of Secondary School Principals completely revised their middle-level construct and modeled it on their earlier high school construct, in *Breaking Ranks*. "Cornerstone strategies," such as implementing teacher teams or advisory programs, were identified for middle-level schools to implement; in all there are 30 *Breaking Ranks in the Middle* recommendations, which are organized into three core areas:

1. Collaborative leadership and professional learning communities
2. Personalization and the school environment, and
3. Curriculum, Instruction, and Assessment. (National Association of Secondary School Principals, 2006)

In addition to these core areas and subordinate recommendations, the construct includes careful attention to transitions, both into and out of the middle grades.

Looking at these various middle-level constructs, it appears that they converge on certain shared principles. Each construct had a wide audience and each undoubtedly influenced thinking and planning for hundreds of middle-level schools. Whether or not implementation had a positive impact on student achievement was a question that was left to later researchers to determine. Updates of some of the constructs tried to take into account research that followed the original release of the construct, but none of the constructs were originally based on systematic, empirical research. They reflected the amalgamation and thoughtful analysis of current thinking about early adolescents and successful practices in schools.

These constructs had an impact on schools and districts; they also had an impact on state departments of education. Such was the case in New York State.

**New York's Middle-Level Construct**

In New York State, the era of Standards was ushered in with the New York State Learning Standards in 1996. These twenty-eight Standards identified the goals for students in public schools: what students should know, be able to do, and be like. Soon afterward, work began on another set of Standards – standards for schools rather than students. In this case, the Standards would identify what middle-level schools and programs should do and be like.

In 1999, the New York State Education Department finished a thorough review of middle-level research and literature which resulted in a description of an effective middle-level program (New York State Education Department, 2002, November): There was "…a surprising degree of agreement as to what constituted a model middle-level education school or program." The analysis included a comparison of the State Education Department documents and policy with the National Middle School Association's *This We Believe*; the Carnegie Council on Adolescent Development's *Turning Points*; the Southern Regional Education Board's *Academic Achievement in the Middle Grades: What Does Research Tell Us*; *Leading the Way: State Actions to Improve Student Achievement in the Middle Grades*; and *Improving Teaching in the Middle Grades: High Standards for Students Aren't Enough* (New York State Education Department, 2003, January).

The Southern Regional Education Board, representing 16 states, conducted a comprehensive examination of the research: *Academic Achievement in the Middle Grades: What Does Research Tell Us* (Heller, Calderon & Medrich, 2003). This comprehensive review of the literature at that time served as the foundation upon which the New York State Education

Department depended (New York State Education Department, 2003, January). Heller, Calderon, and Medrich described what was known about middle level philosophy, research, and practice based on a consideration of 223 books, articles, studies, and reports (2003). The authors pointed out that the research base was modest at best, but provided a reconciliation of the limited research and literature identified strategies that should improve the academic achievement of middle-level students:

- Providing an accelerated and rich core curriculum consisting of topics in algebra and geometry, laboratory- based science, weekly writing in all classes, and extensive reading of all types of materials in all classes for all students;
- Setting high academic expectations and creating a supportive climate of encouragement and extra time and help for students who need it;
- Engaging students in challenging, hands-on assignments that require them to practice new skills, that incorporate their interests, and that relate to life outside the school;
- Providing families with information about school and their student's progress, and encouraging discussions between parents and students about educational and career goals;
- Grouping students to help them connect what they are learning across the curriculum and linking them to a caring adult within the school;
- Coordinating curriculum, sharing data among schools that send and receive students, and preparing students for success in high school; and

- Assigning highly qualified teachers to every classroom. (Heller, Calderon & Medrich, 2003, foreword)

New York was not the only state focusing on middle-level education. At about the same time that New York State was working to identify their regulations for middle-level education, Maryland, too, identified recommendations:

- Students should be challenged to meet high, rigorous academic standards;
- Schools should be organized in programed in such a way as to be responsive to the students' developmental needs;
- Schools should provide access to good teachers and resources for all students; and
- Schools should partner with families and communities. (Maryland State Department of Education, July 1999, pp. 3-4)

There was a convergence of all of the middle-level constructs and recommendations of many states and their organizations. That was due, to a significant extent, to the fact that the same collection of literature and modest amount of research was being employed by the different states and organizations. It was natural for New York State to be working in parallel to the other initiatives and it is safe to say that New York was acting in a way that was consistent with the literature, research, and strategy that other states were using. To have gone in any other direction would have been contrary to the consensus.

Based on these findings and the other middle-level constructs mentioned in the literature review of this monograph, the State Education Department identified their organizational scheme to include seven core topic areas: Philosophy, Educational Program, Classroom Instruction, Educational Leadership, Student Academic and Personal Support, and Professional Learning

(New York State Education Department, 2002, November). These findings were then reviewed by the Statewide Network of Middle-Level Education Liaisons and the New York State Middle School Association. Feedback from these groups led to the initial *Essential Elements of Standards-Focused Middle-Level Schools and Programs* adoption by the Board of Regents in 2000. The Department declared that the essential elements were a package and that all of the elements should be implemented: "The Department's vision of a middle-level school consists of seven Essential Elements. Each supports the twin purposes of middle-level education – student learning and positive youth development. All are important; all are necessary" (New York State Education Department, 2002, September).

Another review of research and literature was conducted by the State Education Department in 2001 in preparation for the Board of Regents' consideration of a new policy statement about middle-level education (New York State Education Department, 2002, November). It should be noted that the body of knowledge upon which New York based its philosophy and expectations for middle-level practice relied primarily on the constructs described in policy statements and upon the work of other states and regions rather than on experimental or quasi-experimental research. Subsequent to the development of the constructs, there have been some empirical analyses of parts of the constructs. These are described in chapter 3 of this monograph. The Board of Regents used the review of research and *Essential Elements* to draft a revision to the 1989 *Regents Policy Statement on Middle-Level Education and Schools with Middle-Level Grades*. Feedback about the draft of a revised policy statement was gathered through a public engagement strategy that included written public comment opportunities and forums that were conducted by the State Education Department across the state. In July of 2003 the Board of Regents adopted the revised *Regents Policy Statement of*

*Middle-Level Education* (New York State Education Department, 2003, June). Subsequently, changes were made to Commissioner's Regulations that incorporated *Essential Elements* and *Regents Policy Statement* with an implementation target for districts of September, 2005 (New York State Education Department, 2003, January).

The complete text of *Essential Elements* can be found in Appendix A. The seven essential elements, however, are as follows:

1. *Philosophy and Mission.* A philosophy and mission must reflect the intellectual and developmental needs and characteristics of young adolescents. The middle-level educational program has a purpose beyond linking the elementary grades and the high school. Its basic aims are to educate and nurture. It has a culture of collective and shared responsibility. To be successful, it must attend to both the intellectual development and the personal needs of young adolescents. The philosophy and mission of a standards-focused middle-level school or program must reflect a set of shared beliefs.
2. *Educational Program.* The educational program must be comprehensive, challenging, purposeful, integrated, and standards-based.
3. *Organization and Structure.* The organization and structure must support both academic excellence and personal development. Standards-focused schools with middle-level grades are organized to promote academic excellence and to establish within staff and students a feeling of belonging and a sense of personal identification with the school and its purposes.
4. *Classroom Instruction.* Classroom instruction must be appropriate to the needs and characteristics of young adolescents and provided by skilled and

knowledgeable teachers. Teachers in middle-level classrooms understand and appreciate the emotional, intellectual, physical, psychological, and social changes that are occurring within their students and recognize the behaviors manifested by these changes. They use instructional techniques and processes that capitalize on the unique developmental characteristics and individual needs of early adolescents.

5. *Educational Leadership.* Strong educational leadership and a building administration that encourages, facilitates, and sustains involvement, participation, and partnerships are essential. Standards-focused middle-level schools and programs need leadership if they are to develop and prosper.
6. *A Network of Academic and Personal Support.* A network of academic and personal support must be available for students. Middle-level students need academic and personal support as they experience the changes associated with the transition from childhood to adolescence and from elementary school to high school.
7. *Professional Training and Staff Development.* Professional training and staff development must be ongoing, planned, purposeful, and collaboratively planned. Teachers, administrators, and other school staff in a standards-focused middle-level school or program need regular, planned opportunities for professional and intellectual growth. (New York State Education Department, 2000, 2003)

*Essential Elements* represents a synthesis of the different national constructs and the Regents Policy Statement. See Table 6 for a comparison of the major categories. The essential elements were codified in two different ways, thus making them the official expectations for all

middle-level programs in the state. First, the Board of Regents revised their Policy Statement in 2003, which refers to the essential elements throughout, and also in this specific language: "The following seven essential elements must be in place in standards-focused schools with middle-level grades" (New York State Education Department, 2003a, p. 1). (The complete text can be found in Appendix B.) Eventually, rubrics were developed that schools could use to guide their understanding and implementation of the essential elements. Protocols were developed that led districts through a step-by-step process of learning about the essential elements, assessing their implementation of the essential elements, and planning for school improvement.

Table 6

*Comparison of Major Headings of the Three National Middle-Level Constructs with* Essential Elements

| **Essential element** | ***Turning Points: Preparing American Youth for the 21st Century*** | ***An Agenda for Excellence at the Middle Level*** | ***This We Believe* (2003)** |
|---|---|---|---|
| **Philosophy and mission** A philosophy and mission must reflect the intellectual and developmental needs and characteristics of young adolescents. | | Core values | A shared vision that guides decisions |
| **Educational program** The educational program must be comprehensive, challenging, purposeful, integrated, and standards-based. | Ensuring success for all students; teaching a core of common knowledge | Student development; curriculum; technology | High expectations for every member of the learning community; curriculum that is relevant, challenging, integrative, and exploratory |
| **Organization and structure** The organization and structure must support both academic excellence and personal development. | | School organization | |

| Essential element | *Turning Points: Preparing American Youth for the 21st Century* | *An Agenda for Excellence at the Middle Level* | *This We Believe* (2003) |
|---|---|---|---|
| **Classroom instruction** Classroom instruction must be appropriate to the needs and characteristics of young adolescents and provided by skilled and knowledgeable teachers. | Preparing teachers for the middle grades | Teachers; learning and instruction | Educators who value working with this age group and who are prepared to do so |
| **Educational leadership** Strong educational leadership and a building administration that encourages, facilitates, and sustains involvement, participation, and partnerships are essential. | Empowering teachers and administrators | Principals | Courageous, collaborative leadership |
| **Network of academic and personal support** A network of academic and personal support must be available for students. | Creating a community for learning; improving academic performance through better health and fitness | Culture and climate; connections and client centeredness | An inviting, supportive, and safe environment; An adult advocate for every student; multifaceted guidance and support services |
| **Professional training and staff development** Professional training and staff development must be ongoing, planned, purposeful, and collaboratively planned. | Preparing teachers for the middle grades | | Educators who values working with this age group and who are prepared to do so |

The Board of Regents (2002, November) stated the need for regulations and policy that target the middle-level specifically in the Regents Policy Statement on Middle-Level Education and Schools with Middle-Level Grades:

> The Regents believe that middle-level education is different from education in the elementary grades and education in the high school. It is different in that its students are experiencing a unique life phase, the change from childhood to adolescence. In addition, middle-level education provides the transition between the self-contained classroom of the elementary school and the departmentalized structure of the high school. This is not to imply that there are not commonalties among the three levels of schooling. Rather, it means that what is provided in the elementary or high school grades is not necessarily appropriate for children in the middle-level grades. Schools should not simply impose an elementary or high school orientation and structure on middle-level students, but should look carefully at the needs of middle-level students and the organization of middle-level education. (p. 9)

The desire to treat the middle-level different than the elementary and commencement levels was confirmed in the revised Regents policy statement: *Supporting Young Adolescents: Regents Policy Statement on Middle-Level Education* (2003, June). From the summary:

> The University of the State of New York and all of its resources are unified in the mission to raise the knowledge, skill, and opportunity of all people in the State. The Board of Regents believes that the middle-level grades, grades 5 through 8, are a vital link in the education of youth, a critical period of individual growth and development, and a key to success in high school. A high performing, standards-focused school with middle-level grades addresses both academic performance and personal development. It ensures that young adolescents are prepared and ready to make a successful transition to high school, academically and personally.

> Creating effective schools with middle-level grades will necessitate systemic change and require a philosophy and mission committed to developing the whole child, a challenging and rigorous educational program, a supportive organization and structure, skilled and knowledgeable teachers who use effective instructional practices, strong leadership, a network of support appropriate to the needs and characteristics of young adolescents, ongoing professional learning, and a strong will to succeed. (p. 6)

The Board of Regents did not issue policy statements about elementary education or high school education, adding weight to the conclusion that they saw middle-level education as different and needing special attention and regulatory attention. Similarly, the Commissioner's Regulations that communicate requirements for schools in New York State also distinguished between elementary, middle, and commencement levels (New York State Education Department, n.d.).

It appears that the Board of Regents believed that the transition from childhood to adolescence was a significant motivation to pay particular attention to middle-level education:

> All students experience the transition from child to adolescent as a natural and predictable life phase. What makes the transformation unique for each individual is the diversity of the onset of changes, the rate of changes, and the ability to cope with changes. No two people experience the transition in exactly the same way. (New York State Education Department, 1989)

The *Regents Policy Statement on Middle-Level Education and Schools with Middle Grades* went on to say:

> The student in transition from childhood to adolescence is driven by natural forces that he or she may neither understand nor predict. Contemporary societal views and expectations of adolescents, the pressures and demands of society on youngsters aged 10 to 14, and the rapid changes within society (including technological change and increasing cultural diversity) with which youngsters must cope may also affect the case or difficulty with which these students deal with changes associated with the transformation from child to adolescent. These societal factors, while they influence all students in varying degrees, may have an especially profound effect upon those youngsters about to enter adolescence. They have the potential for compounding the ease or difficulty with which youngsters make the transition from childhood to adolescence.
>
> Middle-level educators need to realize that these natural changes are inevitable and are often influenced by societal factors, and they need to provide educational experiences consistent with the needs and characteristics of the student in transition (New York State Education Department, 1989).

The emphasis placed on the transition from childhood to adolescence in this policy statement is evidence that the Board of Regents believed that the transition period, and all of the accompanying changes, warranted deliberate and special attention. Because of that conviction, the Board of Regents and the New York State Education Department issued specific policy statements, regulations, and guidance documents that addressed the middle-level. This included *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.

Whether or not the recommendations included in the *Essential Elements* are appropriate for children and adolescents, as well as for the early-adolescents who attend middle-level schools

and programs, is a question that can be answered at two different levels. First, in New York State, regulation and policy are different for the middle-level and therefor a different organization, program, and approach was required. Second, with regard to developmental-appropriateness, the answer might be that some, but not all, of the essential elements are appropriate for P-12 education and not just the middle-level. Certainly as stated by the first essential element, it is important to support all students both academically and personally. It is important to employ the best instructional strategies. Effective leadership and professional development are critical at all levels. Elementary schools are different than high schools, often dramatically so. To avoid an abrupt change from the student-centered structure of many elementary schools to the discipline-centered approach of most high schools, a deliberate transition is necessary. The essential elements emphasize transition. Because the regulations include more subjects and requirements than at the elementary level, some differences in schedule between the elementary and middle-level are often employed. The *Essential Elements* also emphasize an interdisciplinary, team-based organization to the program which is not yet frequently employed at the other levels, although interdisciplinary and transdisciplinary teaching is on the rise at the high school level where high schools have recognized the need to be more student-centered than they traditionally have been.

The essential elements are codified by the Board of Regents and in the Commissioner's Regulations; they are expected of all middle-level programs in New York State. No data have been collected in the state, however, about the extent of adherence to these expectations. Though New York collects a variety of information from schools and districts at different times during the year, no data about the extent of implementation of the essential elements statewide has ever been collected. Therefore, it is has been impossible to broadly describe middle-level education in

the state. While a quick perusal of the names of middle-level schools reveals that many have the words “middle school” in their title, specific information about programs and practices in schools in the state is lacking.

# CHAPTER 3

## Literature Review Part 2: Student Achievement at the Middle Level

### Introduction

Whether schools are using *Essential Elements of Standards-Focused Middle-Level Schools and Programs* or one of the other constructs, there does not seem to be a source of data about middle-level programs that is comprehensive enough to provide an accurate picture of middle-level reform implementation and its impact on student achievement. This is ironic because a significant measure of the success of middle-level practices must be student achievement. It is difficult to draw well-supported conclusions about the success of middle-level schools and programs without information about student achievement.

In addition, the existing literature about student achievement and the extent of implementation of middle-level constructs is inconclusive if not slightly contradictory. Some research suggests that student achievement at the middle level has decreased as more schools have become "middle schools." On the other hand, some qualitative and quantitative evidence suggests that student achievement is positively impacted by the implementation of a middle-level construct. These negative and positive studies are described in the following pages.

### Is Student Achievement at the Middle Level Decreasing?

Claims in the mass media about student achievement at the middle level were described in the introductory chapter of this paper. In addition to those mass-media claims, one research study concludes that these claims are supported by research. Lewis (2006) asserted that middle school performance was worse than ever. Based on No Child Left Behind data collection and analysis, efforts to increase student achievement at the middle level had not worked, according to Lewis (2006). Indeed, it appeared to Lewis (2006) that achievement begins to decrease after the

fifth grade when students become early adolescents. The author did not examine middle-level practices in the schools; he only looked at the No Child Left Behind data for the fifth through eighth grades. Lewis avoided any analysis of what was actually going on in the middle-level schools. Apparently he assumed that whatever was responsible for lowering overall performance in some middle-level schools was affecting all of them equally. Lewis's (2006) approach ignores the fact that practices in schools can and do vary widely. Lewis's (2006) position that student achievement at the middle-level has decreased is not universally held.

In a method similar to that of Lewis (2006), Bandlow used the results of the *Third International Math and Science Study* (TIMSS-RR) to support his conclusion that the implementation of a middle-level construct has had a negligible impact on student achievement (2001). Bandlow (2001) looked at countries whose student achievement results surpassed that of the United States and explored the instructional practices of those countries in order to explain the discrepancies. His overall conclusion is that middle-level educational practices do not have a positive impact on student achievement.

A recent study about trends in state tests scores indicates that eighth-grade achievement has been *increasing* in both math and reading (Center on Education Policy, 2011). This comprehensive study uses data from all of the states in the country, including more than three years' worth of data for 43 states (Center on Education Policy, 2011). In all of the states, the number of students at the advanced level for mathematics has increased; and almost all states indicate gains at the proficiency level as well. Gaps have widened, however, between some student subgroups. Asian American students outperformed all other subgroups in reading and math. In many states, gains made in historically low-achieving subgroups did not match the gains made by white, Asian, or higher-income students. While these data are positive and indicate

increasing student achievement, the study did not look at what was going on in the schools with higher achievement compared to those with lower achievement. Because practices vary in schools it is necessary to explore student achievement at a school level and compare it to practices in schools.

Conclusions like those in the Lewis (2006), Bandlow (2001), and Center on Education Policy (2011) studies, which are based on the aggregation of a lot of data, are not specific enough to inform decision-making in schools and districts. Further, they contradict each other. An examination of studies that consider what is actually going on in the schools, in addition to large-scale aggregated data, would be helpful to educators.

**Do Middle-Level Practices Have an Impact on Achievement?**

Some studies answer this question in the affirmative, others in the negative. Russel (1997) examined the relationship between student achievement and the extent of implementation of the middle-level concept in 10 middle-level schools. The teachers in the schools were surveyed in order to determine the level of implementation of the elements of a middle-level construct that Alexander and George (1981) described. The elements included implementation of interdisciplinary teaming, block scheduling, advisor/advisee programs, exploratory curriculum, developmentally appropriate teaching strategies, transition articulation, and an appropriate required curriculum including learning skills, many of which overlap with those mentioned in *Essential Elements of Standards-Focused Middle-Level Schools and Programs*. Russel compared the collected data to student achievement in those schools. He used regression analysis to develop a predictive equation that took into account the extent of implementation of different aspects of the middle-level concept, and he calculated correlation coefficients. He noted some small correlations between parts of the construct (some positive, some negative) but concluded

that there was a limited impact on student achievement. Mathematics achievement was shown to have a slight positive impact. This was not true for English Language Arts (ELA); no impact on ELA achievement was demonstrated.

The longitudinal math achievement of a group of middle-level students was tracked over four years during which no significant improvement in achievement was observed (Ding & Navarro, 2004). The authors concluded that any increases had been small, inconsistent, and not sustained (2004). During the time period, there were no significant changes or initiatives implemented in the study setting, which suggested that student achievement does not change without the introduction of deliberate initiatives or programs.

A qualitative study investigated the difference between high-performing and low-performing middle schools (Roney, Brown, & Anfara, 2004). Schools of either high or low performance levels were investigated with regard to the extent of implementation of a middle-level construct (i.e., *This We Believe*). The researchers reported that there was a relatively even level of implementation among high- and low-performing schools. They interviewed 48 teachers (24 from each group), using a questionnaire derived from the National Middle School Association's *This We Believe* document. They reported that both sets of schools had a 73% implementation of middle-level construct elements. While low performing schools had more extensively implemented curriculum and pedagogy elements, there was a higher level of community and family participation in the high- performing schools. These investigators concluded that implementing more or less of a middle-level construct does not explain the differences in student achievement.

A 2010 research report, *Gaining Ground in the Middle Grades: What Some Schools Do Better,* claimed to be the most extensive study of middle grades yet conducted (Williams, Kirst

& Haertal, 2010). More than 300 schools were studied in California, where surveys of thousands of teachers and several hundred principals and superintendents were used to collect information about the practices in those schools. Based on the responses, the report came to a number of conclusions about best practices in middle-level schools and programs. The researchers used a middle-level construct that divided up practices into 10 "study domains." The New York State construct, based on *Essential Elements*, is grouped into seven parts. For the California study, researchers compared survey responses in schools with the student achievement record of those schools and determined which domains were correlated with high student achievement (as measured by California Standards Tests).

They found that each of the 10 domains was correlated with student achievement but that some domains had greater predictive strength than others. The overall conclusion of the study was that students do better in schools with a "clear, consistent, and intense focus on improving student academic outcomes" (Williams, Kirst & Haertal, 2010, p. 55). The authors also suggest that a coherent effort among teachers, principals, and superintendents makes a difference in student achievement. Although there are demonstrable connections between some school practices and student achievement, this study identified just a few of the many domains as having a positive impact on ELA and math achievement.

Based on the studies described thus far, two conclusions are plausible: that implementation of a middle-level construct is neutral in its effect on student achievement, or that no conclusion can be reached at this time. There is, however, a some research that suggests that the implementation of a middle-level construct has positive implications on student achievement.

As a way to think about middle-level practices and student achievement, Erb (2006) used the "black box" metaphor that some researchers use in their research. He was interested in

studying what goes on in the "black box" between implementation of the middle-level construct and student achievement (2000). He describes a research model of middle-level reform that includes five components that are based on the *Turning Points* construct: structural features, normative/attitudinal features, skill and professional preparation features, climate and interactive processes, and instructional/practice features. Among these, Erb (2000) points to a few elements he considers non-negotiable. Common planning time is a must, and the common planning time must be effectively used. From effective common planning time comes higher teacher satisfaction and a better climate. These are the key variables that Erb (20060believes lay within the black box that result in higher student achievement. However, quantitative evidence to support his conclusions was not offered.

Differences between high-achieving schools and low-achieving schools can be explained, in part, by the organizational health of the school (Brown, Anfara & Roney, 2004). Schools that were more "organizationally healthy" outperformed other schools that were less "healthy." Organizational health, as defined in this study, refers to the effectiveness and efficiency of structural, managerial, and technical capabilities of the school as an organization. The authors, based on their qualitative, multisite study, conclude that achievement is higher in "healthier" schools. Healthier schools had a greater level of implementation of a middle-level construct. The authors argue that some studies that showed little difference in the extent of implementation of middle-level reform efforts were wrong and that great disparities do exist between the different schools. Significant differences in climate, expectations, curriculum, teacher efficacy, teacher satisfaction, leadership, shared decision-making, resources, parental involvement, and community involvement were documented. The authors assert that the only way to address student achievement in middle-level schools is through comprehensive and systematic

implementation of a middle-level construct. This study considered just one aspect of a middle-level school or program and not the implementation of a total construct such as the *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.

Another study focused on one particular aspect of practice in middle-level schools rather than a broad, comprehensive examination. Mertens and Flowers (2003) set out to determine whether effective interdisciplinary team practices had an impact on student achievement in high-poverty middle-level schools. The authors conclude that there was a positive relationship between school-wide student achievement and the extent of implementation of interdisciplinary team practices. They note a moderate amount of influence of teaming practices on student achievement. Other studies, however, looked more comprehensively at the impact of a middle-level construct on student achievement than just interdisciplinary team practices.

The comprehensive research study often referred to as "The Felner Report" is frequently mentioned in the literature. This report describes a large-scale study of more than 60 middle schools in Illinois (Felner, Jackson, Kasak, Muhall, Brand, & Flowers, 1997). When that study began, little was known about how the extent of implementation of a middle-level construct impacted school improvement (including student achievement). In fact, Felner, et al. (1997) did not think it worthwhile to investigate this relationship because at that time no significant reform had been accomplished, and there wasn't any change to try to assess. Their study showed that the first year of implementation of a reform resulted in a chaotic state for the institution that was trying to reform. As time went by, they grouped schools based on their degree of implementation. Their data show that highly-implemented schools had higher achievement than those schools with lesser implementation or without implementation. Data on discipline also show improvement in highly-implemented schools, as did self-esteem. The authors' most

significant conclusion is that implementation of the reform must be comprehensive if the promised achievement gains are to be realized.

Based on research conducted during the 1990s, a major report summarized the results of a longitudinal study of 224 Michigan schools with a seventh grade (Mertens, Flowers, & Mulhall, 1998). The researchers analyzed a long-term initiative, "Middle Start," to discern whether the Middle Start construct, which included reflective review and assessment, small learning communities, rigorous curriculum and instruction, and distributed leadership, had an impact on student achievement. With the exception of reflective review, which is not explicitly identified in *Essential Elements*, these pieces of the Middle Start construct are included in *Essential Elements*. The study found that the implementation of common planning time and incorporation of advisory programs varied greatly. The researchers examined self-study data from the middle schools, which indicated that self-reported student adjustment was greater in the reformed schools than in those schools not implementing a middle-level reform package. Reformed schools improved in the area of discipline. Substance abuse decreased in reformed schools, too. Finally, with regard to student achievement, the schools participating in the grant-funded reform showed achievement gains in both reading and math. The achievement data held true, however, only in those reformed schools that had also implemented teaming. The authors suggested that this makes a powerful case for teams in middle-level programs.

A 2000 study identified the positive correlation between the extent of implementation of the *Essential Elements* construct and student achievement as measured on the New York State Intermediate Assessments in Mathematics and English Language Arts (Payton & Zeller, 2000). The methodology of this study was straightforward: the extent of implementation of the essential elements in high-performing schools was compared to their implementation in low-performing

schools. Educators, including the author of this study, were trained to visit schools and assess the implementation of the essential elements according to the common Essential Elements Implementation Scale. Multiple observers were sent to each of the schools involved in the study and their independent assessments were combined. The observers were either from the Statewide Network of Middle-Level Liaisons or the New York State Middle School Association which meant that they were likely to have a high degree of familiarity with *Essential Elements*. Their involvement in middle-level leadership, however, might mean that they were not free from bias. The use of multiple observers for each site might have alleviated but not eliminated the potential bias. The study shows that high-performing schools were implementing more of the essential elements than low-performing schools. The advice for middle-level schools and programs based on these findings is to implement the essential elements. A potential shortcoming of this study is that no attention was paid to the resource levels of the schools included in the study.

A follow-up study was undertaken in 2001 to replicate the previous study, with one exception: differences in needs and resources between schools were considered. The study used the same methodology but attempted to control for the economic resources of the district. In each of the four different levels of school need-categories used in New York State, the data clearly show that high-achieving schools were implementing the essential elements to a greater degree than low-achieving schools. In other words, the more schools implemented the essential elements, the higher their student achievement was. The conclusion was that middle-level schools and programs should work toward complete implementation of the essential elements outlined in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* (Payton, 2001). These two studies provide evidence that implementation of the essential elements in a modest number of schools was connected to high student achievement. It would be

interesting to see if these conclusions hold up with a larger sample of middle-level schools and programs in New York State—something that this study will attempt to do.

Another approach to the question about middle-level impact is to look at school practices more deeply, identifying similarities and differences among middle-level schools. Operating on the assumption that effective middle schools outperform less effective middle schools, Trimble set out to determine to what extent implementation of middle-level constructs has occurred (2002). Trimble (2002) claims that most schools are not implementing the middle-level construct and that this explains the lag in achievement of middle-level schools as an aggregate. This claim is a departure from broad generalizations made by some authors that are often reported in the mass media, as though middle-level schools can be lumped together as a monolithic entity. Trimble (2002) asserts that distinctions can be made among middle-level schools in their implementation of a middle-level construct, and that the connections between student achievement and middle-level construct implementation must be examined at the school level.

In 2006, Mertens and Anfara constructed an argument about student achievement that was based on several earlier studies, arguing a clear connection between student achievement and the extent of implementation of a middle-level construct. The first study Mertens and Anafara discussed was one conducted by Lee and Smith in 1993 which found a positive association between the extent of implementation of a middle-level construct and student achievement, student engagement, and equity. The second was Felner's 1997 study (detailed earlier in this section), which found that students in schools with more extensive implementation of a middle-level construct out-achieved students in lower-implementation schools. A third study, by the Chicago Consortium in 1999, found connections among social support and high academic expectations (high expectations for academic achievement combined with rigorous

work) and student achievement. The researchers documented relationships between teams with common planning time, best practices implementation, and depth of learning. These studies all categorized schools by some particular measure such as implementation of a middle-level construct, the extent of restructuring, or the strength of social supports in and around the school. Then, the researchers compared ratings of these measures to some measure of student achievement, demonstrating a correlation between systematic implementation of a middle-level construct and student achievement. This study suggested that implementation of New York's middle-level construct, based on *Essential Elements*, might have a greater impact on student achievement if completely implemented than if implemented in an incomplete or piecemeal fashion.

Two recent national studies concluded that student achievement is positively and significantly impacted by the implementation of a middle-level construct (McEwin & Greene, 2011). The National Forum to Accelerate Middle Grades Reform identified Schools-to-Watch schools, and the National Association of Secondary School Principals' identified Breakthrough Middle Schools as their study schools. In this case, schools were identified that had most extensively implemented their particular middle-level construct. Student achievement in these schools was then compared to student achievement in a random sample of middle-level schools. Two determinations were made. First, the schools that were identified by both of the recognition programs on the basis of their written application and subsequent site visits did, in fact, showed more extensive implementation of the components of their middle-level construct. Though it might seem obvious, recognition programs do, in fact, recognize what is actually occurring in the schools. Second, the authors pointed to higher achievement in both mathematics and reading in the recognized schools as compared to the random sample of schools. The authors assert that the

middle-level construct remains a viable model for middle-level schools, and they observed that there are many schools that are middle-level in name only, and suggested that achievement gains for students can happen if lower-performing middle-level schools would actually implement a middle-level construct.

Looking back at this modest collection of research it is difficult to make an unequivocal conclusion about the impact of a middle-level construct on student achievement. There is more research that points to a positive impact than to a negative or neutral impact. The research, however, is mixed.

**Explanations for the Inconclusiveness**

Anfara and Lipka (2003) argue that comprehensive implementation of a middle-level construct is supported by research, while at the same time asserting that the research is not conclusive. The authors offered some possible explanations for that inconclusiveness. They suggested that there is a need to figure out a better way to measure the "true" implementation of middle-level constructs. The authors also suggested that there are variables other than those included in middle-level constructs that have an impact on student achievement that have to be isolated.

The middle-level model arose out of dissatisfaction with the junior high model. During the last few decades of the 20th century, thousands of junior high schools ostensibly made the transition to a middle-level approach. The level of implementation of middle-level practices varied from school to school. Some schools underwent a significant and long-lasting shift. Others did little more than change their name from "junior high" to "middle school." While data are available about the number of schools with "middle" in their name, few data have been collected about the actual practices within those schools. Without knowing what is actually

happening in middle-level schools it is difficult to label them as successes or failures. The research that has been done, while providing some evidence in support of the effectiveness of middle-level approaches, is insufficient to make definite and generalizable conclusions.

The lack of research in this area has been noted for some time. When the middle-school movement was catching on and spreading across the country in the 1960s and 1970s, ASCD expressed concern that schools might have been changing their name from junior high to middle school without significantly changing their practices (Association for Supervision and Curriculum Development, 1975). Decades later, the National Middle School Association made the same point, lamenting the lack of research on the relationship between the extent of implementation of middle-level principles and constructs and student achievement (2003a). They called for more studies that would examine middle-level programs and practices comprehensively, and their relationship to student learning.

Do students achieve at higher levels in schools with greater implementation of the components of the middle-level construct? In New York State, a particular construct, outlined in *The Essential Elements of Standards-Focused Middle-Level Schools and Programs,* is required by regulation. Do students in schools with greater implementation of the essential elements achieve at higher levels? This study will endeavor to answer this question.

# CHAPTER 4

## Research Methods

### Statement of the Problem

This study was undertaken to address the research questions as they pertain to middle-level schools in New York State. The researcher followed data collection procedures similar to those employed in the Missouri (Middle-Level Leadership Center, 2006) and Arkansas (Meeks & Septa, 2004) statewide surveys. For this study, however, the researcher sought to discover the relationship between specific middle-level practices of a particular middle-level construct (*The Essential Elements of Standards-Focused Middle-Level Schools and Programs*) and student achievement. In short, a descriptive analysis of middle-level practices was used to infer the relationship with student achievement.

### Research Questions

The following research questions were examined in this study:

1. To what extent is the construct provided in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* implemented in middle-level schools in New York State?
2. What is the relationship between the extent of implementation of the essential elements and student achievement?

### Null Hypothesis

The following hypothesis will be tested in this study:

$Ho_1$: There are no statistically significant relationships between the extent of implementation of the *essential elements* and student achievement as measured by the New York State Testing Program when controlling for socioeconomic status (needs/resource category).

**Population**

The population of this study consisted of all New York State public middle-level schools outside of New York City. A middle-level school was defined as any school which included a seventh grade. Therefore, for this study, 754 schools comprised the population. All of the principals of these schools were invited to participate. Within this population, schools representing all of the needs resource categories were invited to participate, including:

- Low-needs suburban public schools with a seventh grade
- Average-needs suburban public schools with a seventh grade
- High-needs suburban/urban public schools with a seventh grade
- High-needs public rural schools with a seventh grade
- Public schools with a seventh grade in large cities (other than New York City)

Early on in the planning of the study, the decision was made to gather data from as many schools as possible. Because the State Education Department does not collect data about the implementation of *Essential Elements of Standards-Focused Middle-Level Schools* and Programs, another way to gather information about the extent of implementation of the essential elements had to be employed. The decision to gather data from many schools made it impractical to send teams of trained observers into schools to assess the extent of implementation of the essential elements, which is what Payton and Zeller had done previously (2000). Surveys are one common way to gather data quickly from many sources in a manner that is efficient and cost-effective (Babbie, 1995 and Fowler, 2002). The use of electronic means to gather data makes

surveys additionally practical, as long as the necessary means to reach potential respondents with the survey exist. It is possible to attain a list of principals for all schools with a seventh grade (New York's definition of a school with a middle-level program) from the State Education Department. Each principal could be sent an identifiable-link to the survey via their email address. This was one reason to use principals as a source of data about the extent of implementation of the essential elements in their school.

A second reason for using the principal as a source of information about the implementation of the essential elements was that the principal is the person most likely to have the widest knowledge of the practices in the school. This does not mean that the principal necessarily has the deepest knowledge about practices in a school. For example, surveying all of the teachers in a school about their instructional practices might produce rich information about the instructional practices in the school -- deeper that the principal alone might be able to report. There are other aspects of the school program, however, about which the teachers have little knowledge and so would not be a good source of information. When seeking information about many aspects of the school as was the case in this study, the principal was the more practical choice. Using the principal as the source of information about *Essential Elements* implementation was a practical one that allowed for widespread data collection. The alternative approach would have been to gather data from more sources from a smaller population of schools. For this study, information was gathered from many schools via the principals.

A limitation of using the principal as the source of the information about *Essential Elements*, in addition to the potential shallowness of their knowledge about all of the practices in the school, stems from the fact that they might exhibit social desirability bias (Babbie, 1995 and Fowler, 2002). Because principals know what should be happening in their school they might be inclined

to overestimate the extent to which a particular practice was in place. Fowler (2002) said that social desirability has less of an impact in paper or electronic surveys than in interviews, but this bias exists, nonetheless.

**Instrumentation**

The data about middle-level practices in this study were collected through a survey of the principals of the schools in the population. A survey is an appropriate method of data collection for this study because it makes standardized measurement across respondents possible (Babbie, 1995). A survey is also appropriate for this study because the lack of bias allows the researcher to have confidence in the probability sampling that will be employed in the data analysis (Fowler, 2002). The instrument, the Essential Elements Survey (see Appendix B), was based in part on the only two other statewide surveys of middle-level practices: the Missouri Middle-Level School Survey (Middle Level Leadership Center, 2006) and the Arkansas Middle-Level Survey (Meeks & Stepka, 2004). Both of these instruments employed surveys completed by the principals of middle-level schools in order to gather data about practices in those schools. These surveys were both based on two similar constructs described in Chapter 2 of this publication: *Turning Points 2000* (Jackson & Davis, 2000) and *This We Believe* (National Middle Schools Association, 2003).

The statewide surveys in separate efforts in Missouri and Arkansas provided researchers in those states with information about the practices in middle-level schools in those states. These two initiatives served as examples of statewide data collection about practice in middle-level schools more than they served as actual sources of questions that were employed in this study. These two surveys were developed to gather information about practices in the schools and were not tightly bound to a particular middle-level construct (Middle-Level Leadership Center, 2006),

which is unlike the case in New York State with its *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.

Many of the stems used in the items came directly from *Essential Elements of Standards-Focused Middle-Level Schools and Programs*. Rather than paraphrasing the text of *Essential Elements*, which could introduce additional room for interpretation between the item and respondent's response, the elaborative descriptors from essential elements were used in the survey item construction. In some cases there were many descriptors for an essential element and in some cases the descriptors were long. Decisions were made while the survey was being developed, however, to keep descriptors together in order to not make the survey any longer. Further efforts to investigate the relationship between student achievement and the essential elements could separate some of the longer survey items into multiple items in order to focus on specific pieces or to see if any respondent fatigue had any influence.

The instrument used in this study, the Essential Elements Survey, consists of eight sections. The first section focuses on demographic information about the schools. This is followed by seven sections, each of which corresponds to one of the seven essential elements. Each question in the Missouri or Arkansas surveys was tagged to the essential element to which it most closely aligned. Because these surveys were built upon a different, but related, middle-level construct, some modifications had to be made to the items. As few modifications were made as possible, however, in order to capitalize on the experience of the only other state-wide studies about middle-level practices and programs that had ever been completed up until this point. While some of the essential elements were addressed with questions from these two surveys, not all of the essential elements were represented. In these cases, items were created to

gather information about the extent of implementation of the essential elements in middle-level schools.

In order to quantify the extent of implementation of the *Essential Elements* in schools, some sort of scale had to be employed. Payton and Zeller (2000) used a seven-point implementation scale. The observers sent to schools to assess implementation of the essential elements were all trained before going into the schools. For this survey, respondents would have no special training to instruct them in the use of a seven-point scale or the like. Rather, a scale had to be readily understandable (Babbie, 1995). For many of the items in the survey used in this study, a modified Likert scale was used. A five-point scale was used in order to provide greater discrimination (Fowler, 2002). Unlike a traditional Likert scale which often asks about the extent to which respondents agree or disagree, the survey items in this study asked respondents to identify to which extent certain practices were observable in the school. The scales were constructed in a way as to allow comparative analysis in the subsequent examination of the data (Fowler, 2002). For many items in the survey, items were constructed to allow for a more than half-of-the-time/less-than-half-the-time comparison. "Almost always" responses could be combined with "more than half of the time" to provide the "more-than-half-the-time" description.

Early drafts of the Essential Elements Survey were reviewed by several middle-level education experts, including the director of middle-level education for the New York State Education Department and the past president of the New York State Middle School Association. These experts were asked to consider how well the survey represents the essential elements and its likelihood to collect data that could later be used to make conclusions about statewide

implementation of the *Essential Elements* construct. Their suggestions were incorporated into the pilot version of the instrument.

The revised instrument was piloted with the Statewide Network of Middle Level Liaisons, which was comprised of representatives from each of the Boards of Cooperative Educational Services (BOCES) and big cities in the state. The majority of the liaisons were actively serving middle-level principals; they were asked to take the survey, indicate problem items, and comment on the content validity of the items in relation to the essential elements. They were also asked to make comments about the format of the survey and to make suggestions for improving its flow and clarity. The recommendations and suggestions from the more than 50 middle-level liaisons who participated in the pilots were taken into account in the version of the survey (see Appendix B) that was employed in this study.

The pilot of the survey resulted in some changes to the survey instrument. First of all, pilot-respondents made suggestions about phrasing and order. Many of these suggestions were easily incorporated into the final version of the survey. In a few cases, terms or jargon that were ambiguous were replaced with words that were intended to be more universally understood.

Some of the respondents indicated that they thought the survey was too long. Adjustments were made to shorten it through the elimination of survey questions that were intended to gather information beyond the immediate scope of *Essential Elements*, including questions about instructional technology and its application.

Other respondents thought that there were some questions about special education and other practices that were absent and should be added. Suggestions were also made about gathering information about specific character education programs. In most cases, though, questions were not added because of the concerns raised about the length of the survey.

Additional data , from additional questions, would have been nice to have and would have permitted additional analysis but it would have made a long survey even longer.

Measures of student achievement, for this study, were the scores from the New York State Testing Program. Specifically, the aggregated eighth-grade Mathematics and eighth-grade English Language Arts scores were downloaded from the New York State Education Department. Because these tests are the de facto measures of student achievement in the state and form the basis of the accountability systems used in the state, these measures were selected as the measures of student achievement.

For this study, a narrow definition of student achievement was employed; student achievement was measured by the New York State Assessments in English Language Arts (ELA) and mathematics. Achievement measures had to be readily available for all of the middle-level schools and programs in the state in order to be able to make the comparisons of the study. This limited possibilities to the 3-8 ELA and math tests and the $4^{th}$ and $8^{th}$ grade science tests. All public schools have to administer those tests and they have to submit the results to the State Education Department for accountability purposes.

The decision to use only the ELA and math results was a practical decision that was made because those are the measures that New York State primarily uses to make accountability decisions about schools and districts. The Commissioner referred only to ELA and math in his test scores press release (New York State Education Department (2007, May 22). The official presentations about 2007 student achievement refer only to ELA and math (New York State Education Department (2007). ELA and math data are the only data that the State Education Department releases in bulk files. The State Education Department does not release the science test results in a similar manner. Science data can be obtained school by school via School Report

Cards, but not in bulk files which permit a more efficient analysis of data. Because using ELA and math achievement as measured on a state test is such a narrow definition of achievement, a future study could shed greater light on the relationship of *Essential Elements* implementation and student achievement. Science data, high school completion rates, and other measures could be used in another study. For practical purposes, however, this study employed only the ELA and math achievement data.

A unique identifier was employed in order to connect the results of the survey with the student achievement data: the Basic Educational Data System (BEDS) code. The BEDS code is a unique number that the state uses to identify each school.

**Data Collection**

Data about middle-level practices and programs in New York State were collected using the Essential Elements Survey during the 2008–2009 school year. Principals of the 754 schools with a seventh grade were contacted via e-mail; the e-mail addresses came from the New York State Education Department. Each principal received an e-mail description of the study and an invitation to participate. Included in the e-mail communication was an explanation of the potential respondent's rights, as required by Syracuse University's Institutional Review Board, and the opt-out option required by Surveymonkey, the survey program software developer. Embedded in the message was a link to the survey. Of the 754 principals who were contacted, 28 either opted out of this survey or had previously opted out of a different Surveymonkey survey. The number of e-mail addresses that bounced back was 136, which indicated that some of the e-mail addresses provided by the State Education Department were erroneous or obsolete. It is also possible that e-mail security measures rejected messages with the word "survey" in the subject line or the body of the message. The initial e-mail invitation was sent in July 2008. Subsequent

solicitations were automatically sent to nonrespondents in August, October, and December of 2008. Ultimately, usable responses were received from 185, which represent 24.5% of the population. Achievement data from the 2007–2008 school year were utilized because the timing of the assessment was closest to the initial solicitation of information from the principals.

The responses of middle-level principals indicate that there are more male principals than female principals, by almost a two to one ratio (62.7% to 37.3%). This compares to national figures, at that time, which indicate that approximately 60% of principals were male. The average amount of experience as a middle-level principal was 7.1 years. This compares to a national figure for all principals, at that time, of 7.1 years (Battle, 2009). The principals in this study were leaders at their present school longer, 6.6 years, than the national average of 3.8 years (Battle, 2009). Principals had some experience as an assistant principal at a middle-level school, but not too much (average of 1.8 years). Prior to becoming a middle-level administrator, respondents report having served as a middle-level teacher for an average of 8.3 years. Seventy-seven percent have a master's degree, 70.5% hold a certificate of advanced study, and 10.1% hold an earned doctorate. Nationally, 61% of principals indicated that their highest degree was a master's degree, while 28.6% earned an advanced degree and 9.1% earned a doctorate (Battle, 2009).

One of the questions in the survey collected information about the need/resource category of the schools. The need/resource capacity index is the measure that New York State has used to describe a district's ability to meet the needs of its students compared with its resources. It is the ratio of the estimated poverty percentage to the Combined Wealth Ratio (New York State Education Department (2012). Categories of need/resource were identified as follows:

High Need/Resource Capacity: New York City

High Need/Resource Capacity: Large City School Districts

High Need/Resource Capacity: Urban-Suburban School Districts

High Need/Resource Capacity: Rural School Districts

Average Need/Resource Capacity

Low Need/Resource Capacity

The population in this study included all of the Need/Resource Capacity categories except for New York City which was excluded because the regulations for middle-level education are not exactly the same as for the rest of New York State. Table 7 displays the responses by category.

Table 7

*Distribution of Survey Responses by Need/Resource Category*

| Category | % or survey respondents from that category | % of districts in New York State that fall in category |
|---|---|---|
| High Need/Resource Capacity: New York City | Not applicable | <1% |
| High Need/Resource Capacity: Large City School Districts | 4% | <1% |
| High Need/Resource Capacity: Urban-Suburban School Districts | 14% | 6% |
| High Need/Resource Capacity: Rural School Districts | 31% | 23% |
| Average Need/Resource Capacity | 36% | 35% |
| Low Need/Resource Capacity | 15% | 20% |

A conclusion about the distribution of responding schools is challenging because the survey collected data about the Need/Resource Capacity category of the school while the last column of Table 7 reports the Need/Resource Capacity category for districts. This is problematic

because it does not reflect the number of middle-level schools within a district. Urban districts certainly tend to have more than one middle-level school or program. Some larger suburban districts might have more than one middle-level school or program, too. It is unlikely, on the other hand, that many rural school districts have more than one middle-level school or program. Therefore, a straightforward comparison is not possible with these data. It is safe to say, however, that data from all of the Need/Resource Capacity categories are included in the data used in this study. It is also likely that data from High Need/Resource Capacity: Large City School Districts is underrepresented in these data. A future analysis could consider whether the relationship between *Essential Elements* implementation and student achievement varies between Need/Resource Capacity categories. Additional data from High Need/Resource Capacity: Large City School Districts middle-level schools might need to be collected in order to make such comparisons.

In the future, an analysis of the geographic distribution of the respondents might provide insight into any patterns of response, as well as provide another means to assess the representation of the respondents to the population. Similarly, an exploration of the respondent's school size to the population could provide additional insight.

**Data Analysis**

The first analysis of the data was a descriptive analysis to determine the level of the extent of implementation of the *Essential Elements* construct in New York State. Subsequent to that analysis, the data were analyzed to determine how the level of implementation varied with student achievement.

The survey that gathered the data about the extent of *Essential Elements* implementation used multiple questions to gather data about each essential element. The items were combined to serve as an indicator for the essential elements.

Matrix questions were employed for some of the essential elements because they are an effective approach when asking questions that have the same answers (Babbie, 1995). The advantages to this approach include the effective use of space, speed of response, and respondent comparability of previous responses to related items (Babbie, 1995). The survey developed for this study employed this approach for at least part of all of the essential elements. While the matrix approach does have advantages, there are concerns that the format can contribute to pattern responses by the respondent – that is that respondents can fall in to a pattern of answering questions based on the repeating pattern (Babbie, 1995). Babbie suggests that one way to combat this is to occasionally change the orientation of the items. This strategy was employed in the development of the survey used in this study.

Items #2-1, #2-2, and #2-3 were developed to assess the first essential element: mission and vision. The responses from principals were examined to see how they co-varied, and based on that analysis it was determined that items #2-1 and #2-2 did not work well enough to be included in the analysis. The reliability analysis of item #2-3 indicated that it worked well and would have to serve as the source of data about essential element one. The Cronbach Coefficient Alpha for the group of responses within survey item #2-3 was 0.89778. The “all or almost all staff committed” responses were combined in order to serve as the scale for essential element one.

Table 8

*Survey Item #2-3*

To what extent would your staff commit to each statement as a responsibility of your school?

| | All or almost all staff | More than half of the staff committed. | Approximately half of the staff committed | Less than half the staff committed. | No/few staff committed. |
|---|---|---|---|---|---|
| Accepting individually and collectively responsibility for the educational and personal development of each and every student. | | | | | |
| Connecting each young adolescent in positive ways with the school and with caring adults within the school. | | | | | |
| Developing the whole child, intellectually and academically, personally and socially, physically, emotionally, and ethically. | | | | | |
| Ensuring for each student a safe, inviting, trusting, and mutually respectful learning environment that offers both physical and psychological safety. | | | | | |
| Establishing partnerships with the home and the community. | | | | | |
| Providing a successful transition from the elementary grades to the middle grades to the high school grades and from childhood to adolescence. | | | | | |
| Providing each student with a variety of learning experiences that are academically challenging, developmentally appropriate, and personally relevant in order for each of them to make informed educational and personal decisions. | | | | | |
| Working together to ensure that all students achieve at high levels and, with appropriate guidance and structure, develop independence and responsibility. | | | | | |

For essential element two, instructional program, items #3-1 and #3-2 were combined because the Cronbach Coefficient Alpha for the group of responses to these two items, together, was 0.920719. An ordinal scale was developed for both questions and then combined. For survey

item #3-1, the "observable all/almost all of the time throughout the school" had the highest value. For survey item #3-2, the "all planning begins with the standards, with assessments and activities following directly from the standards" response had the highest value. They were averaged together to create the scale for essential element two.

Table 9

*Survey Item #3-1*

Describe the extent of implementation that a visitor would observe on any given day for each of these qualities:

| | Observable all/almost all the time throughout the school. | Regularly observable in more than half the school. | Regularly observable in approximately half the school. | Regularly observable in less than half of the school. | No or very little observable implementation. |
|---|---|---|---|---|---|
| A common set of learning skills (e.g., how to study, how to conduct research, how to read for understanding, how to take notes, etc.) is in place across all grades and subject areas and taught and reinforced in each grade and subject area. | | | | | |
| The overall program emphasizes not only intellectual development but also personal, social, physical, and ethical development. | | | | | |
| The program emphasizes interdisciplinary connections, and promotes shared responsibility for the standards among all content areas. | | | | | |
| The program emphasizes reading, writing, and mathematics (literacy and numeracy) across the subject areas with expectations for performance that are consistent across and within the disciplines and commonly understood by teachers, students, and parents. | | | | | |
| The program encourages students to pursue personal interests, engage in school and community activities (e.g., sports, clubs, etc.), explore potential futures and careers, develop useful social, interpersonal, and life skills needed to live a full and productive life, and nurture a "love of learning." | | | | | |

| |
|---|
| The program engages and involves the family, local community, and the world outside school in the education and personal development of young adolescents. |
| The program explicitly embraces and encompasses all of the State's 28 learning standards. |
| The program has explicit, published performance expectations that are common across all grades and subject areas (e.g., students must write in complete sentences). |
| The program includes diagnostic assessments (similar in design to the State's assessments) that regularly and routinely monitor the learning of each student relative to the State's standards and community expectations. |
| The program is articulated with the elementary feeder schools and with the secondary receiving schools, building on the foundational knowledge and skills of the elementary grades and, in doing so, preparing students for success in high school. |
| The program is explicitly articulated vertically and horizontally, within and across the various curricular areas, learning standards, and grade levels. |
| The program is thoroughly challenging, rigorous, and purposeful. |
| The program offers opportunities for the development of personal responsibility and self-direction. |
| The program provides targeted and timely academic intervention services that are based upon a careful assessment of the academic, social, and emotional needs of students at risk of not meeting the State’s learning standards. |
| There are up-to-date written curricula (that are based on and aligned with the State's learning standards), instructional support, and learning aids for all subject areas. |

Table 10

*Survey Item #3-2*

Which statement best describes the use of the NYS Learning Standards by the predominance of teachers in your school? (choose one):

| |
|---|
| All planning begins with the standards, with assessments and activities following directly from the standards. |
| Teachers make adjustments to their lesson in order to align them to the standards. |
| Teachers continue to use preexisting lessons and units and reference the standards (identifying which standards are hit). |
| The standards prompted little changes in lesson and unit planning. |
| The standards had no impact on our school. |

Survey items #4-1 through #4-15 were designed to provide information about the implementation of essential element 3 which addressed the organization and structure of the middle-level school. While some of these questions did provide helpful descriptive information about the schools and their organization and structure, not all of the survey items were reliable enough to be included in the scale for essential element three. After different combinations of survey items were tried, it turned out that survey items #4-6 and #4-15 provided the most reliable information, with a Cronbach Coefficient Alpha of 0.906193. In order to combine them into a single scale, the percentage of responders to both the "almost all students participate" and "more than half of all students participate" were added together to provide a value for each subpart of survey item #4-6. Similarly, responses to "almost always" and "more than half of the time" were combined for each subpart of item #4-15 and then the responses to the two survey items were averaged in order to create a single scale for essential element three.

Table 11

*Survey Item #4-6*

Please rate the extent of student participation in the following programs in your school:

| | Almost all students participate | More than half of all students participate | Approximately half of the students participate | Less than half of the students participate | Few students participate | The program is not offered at our school |
|---|---|---|---|---|---|---|
| Formal after school programs that support students, such as a 21st Century Learning Center. | | | | | | |
| Extracurricular sports for 7th and/or 8th graders. | | | | | | |
| Informal after school extra help with teachers. | | | | | | |
| Intramurals | | | | | | |
| Coordinated service learning opportunities. | | | | | | |
| Clubs. | | | | | | |

Table 12

*Survey Item #4-15*

Please rate the extent to which the regular work of the interdisciplinary teams agrees with these statements:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Interdisciplinary teams use an agenda for their meetings. | | | | | |
| Interdisciplinary teams focus on curriculum and instruction. | | | | | |
| Interdisciplinary teams employ common strategies and expectations. | | | | | |
| Interdisciplinary teams plan special events for their students. | | | | | |
| Interdisciplinary teams focus on the behavior of their students. | | | | | |
| Interdisciplinary teams focus on the social and emotional needs of their students. | | | | | |
| Interdisciplinary teams coordinate curricula. | | | | | |
| Interdisciplinary teams coordinate assignments and assessments. | | | | | |
| Interdisciplinary teams have common planning time. | | | | | |

For the fourth essential element, classroom instruction, survey items #5-1 - #5-8 were intended to provide data that could be combined into a single scale. As it turned out, the inclusion of survey item #5-5 harmed the reliability of the group. For item #5-7, only the heterogeneous grouping response was used. With the others removed, a Cronbach Coefficient Alpha of 0.906647 was achieved. Responses to “almost always” and “more than half of the time” were combined and then the responses to the survey items were averaged in order to create a single scale for this essential element.

Table 13

*Survey Item #5-1*

To what extent does each of these statements describe your teaching staff?

| | All or almost all staff. | More than half of the staff. | Approximately half of the staff. | Less than half the staff. | None or very few of the staff. |
|---|---|---|---|---|---|
| Are consistently caring and respectful in their interactions with students and with other adults. | | | | | |
| Have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques. | | | | | |
| Know and understand each of the State's 28 learning standards and when and where appropriate reinforce them routinely during regular classroom instruction. | | | | | |
| Provide instruction that is consistently standards based, challenging, rigorous, and purposeful. | | | | | |
| Thoroughly know and understand the needs and developmental characteristics of young adolescents. | | | | | |

Table 14

*Survey Item #5-2*

Please rate the extent to which you would observe each of these instructional strategies on a typical day in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Lecture (scale direction reversed). | | | | | |
| Whole-class instruction (scale direction reversed). | | | | | |
| Guided reading groups. | | | | | |
| Center-based instruction in ELA. | | | | | |
| Center-based instruction in mathematics. | | | | | |
| Inquiry-based experiences. | | | | | |
| Follow-the-directions lab experiences (scale direction reversed). | | | | | |
| Cooperative groups. | | | | | |
| Student-to-student discussion. | | | | | |
| Literature circles/reading clubs. | | | | | |
| Tiered assignments. | | | | | |
| Differentiated assignments. | | | | | |
| Student choices. | | | | | |
| Purposeful reading. | | | | | |
| Peer tutoring. | | | | | |
| Reading and/or writing workshops. | | | | | |

Table 15

*Survey Item #5-3*

Please rate the extent to which you would observe each of these approaches on typical assessments used in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Demonstration. | | | | | |
| Document-based questions. | | | | | |
| Essay and written responses. | | | | | |
| Multiple choice (scale direction reversed). | | | | | |
| Multiple opportunities. | | | | | |
| Paper/pencil based tests (scale direction reversed). | | | | | |
| Peer assessment. | | | | | |
| Portfolio-based assessment. | | | | | |
| Practicing form of state assessment (scale direction reversed). | | | | | |
| Presentation. | | | | | |
| Project-based. | | | | | |
| Self-assessment. | | | | | |
| Student choice of product. | | | | | |

Table 16

*Survey Item #5-4*

Please rate the frequency of assessment purposes in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Diagnostic. | | | | | |
| Formative. | | | | | |
| Summative (scale reversed). | | | | | |

Table 17

*Survey Item #5-6*

Please rate the use, by your teachers, of each communication strategy with parents/families:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Parent-teacher conferences. | | | | | |
| Written, regular progress reports. | | | | | |
| Printed, school-wide report cards. | | | | | |
| Written, occasional progress reports. | | | | | |
| Printed, school-wide progress reports. | | | | | |
| Web-based system with home access. | | | | | |
| Student-led conferences. | | | | | |
| Parent-team conferences. | | | | | |
| Phone calls home (not for disciplinary reasons). | | | | | |

Table 18

*Survey Item #5-8*

Please rate the extent to which teachers participate in different aspects of their own professional learning:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Local, one-day workshops from commercial enterprises such as BER, Crystal Springs, etc. | | | | | |
| BOCES provided workshops. | | | | | |
| Collaborative planning. | | | | | |
| Visits to other classrooms within the school. | | | | | |
| Teacher-led study groups. | | | | | |
| Visits to other schools. | | | | | |
| Superintendent's Conference Day programs. | | | | | |
| Teacher-led in-service. | | | | | |
| National/international conferences put on by professional groups (such as ASCD, NMSA, NSDC, IRA, etc.) | | | | | |
| Statewide Conferences put on by professional groups (such as STANYS, NYSMSA, NYASCD, NYSSMA, etc.) | | | | | |

Although survey items # 6-1 - #6-10 were intended to work together to assess the extent of implementation of essential element five, leadership, items #6-8 and #6-10 were the items that were the most reliable with a Cronbach Coefficient Alpha of 0.873339. All responses to survey item #6-8, other than "learning still in progress," were weighted the same to indicate that knowledge in each of the areas had been acquired one way or another. Those were then added together. The "less than half of teachers participate" and "none or very few teachers participate" responses were combined and then the sign was switched from negative to positive in order to be combined into a scale.

Table 19

*Survey Item #6-8*

Please identify the primary source(s) of your knowledge in each area (check all that apply):

| | Included in certificate program | From conference or workshop | Acquired through experience | Learned through reading | Learning still in progress |
|---|---|---|---|---|---|
| Articulation and maintenance of high standards for classroom instruction and student performance. | | | | | |
| Creating, promoting, and sustaining a school culture of mutual support and collective responsibility for the educational and personal development of each and every young adolescent. | | | | | |
| Expressing high expectations for students and staff. | | | | | |
| Having an understanding of the subject matter in the middle grades and its interconnections, of different approaches to student learning, and of diverse teaching strategies. | | | | | |
| Informing and involving parents of middle-level students in their children's education by helping them understand the needs and developmental characteristics of young adolescents, the learning standards their children must meet, the instructional program, their children's progress, and how to help their children at home with schoolwork, school decisions, and successful development through | | | | | |

| |
|---|
| adolescence. |
| Involving staff and others in the operation of the school or program, empowering and encouraging them to contribute and to make decisions that benefit students. |
| Knowledge and understanding of a range of successful, research-based teaching techniques that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences. |
| Knowledge and understanding of each of the 28 learning standards and how they interrelate. |
| Knowledge and understanding of the essential elements of a standards-focused, high performing middle-level school or middle-level program. |
| Knowledge and understanding of the State's assessment system. |
| Knowledge and understanding of the unique needs and developmental characteristics of young adolescents. |
| Promoting and facilitating interschool cooperation, collaboration, and communication with feeder elementary schools and receiving high schools. |
| Promoting school/community partnerships and involve members of the community in school activities and initiatives, empowering and encouraging them to contribute and make decisions that benefit students. |
| Providing students with opportunities to assume significant and meaningful leadership roles in the school. |
| Supporting and encouraging teachers, individually and collectively, to take risks, to explore, to question, to try new instructional approaches, to continue as learners, and to grow. |

Table 20

*Survey Item #6-10*

To what extent do teachers participate in these activities?

| | All or almost all teachers participate. | More than half of the teachers participate. | Approximately half of the teachers participate. | Less than half of the teachers participate. | No or very few teachers participate. |
|---|---|---|---|---|---|
| Teachers participate in the shared decision making process. | | | | | |
| Teachers serve on building committees. | | | | | |
| Teachers serve on district committees. | | | | | |
| Teachers have departmental leadership responsibilities. | | | | | |
| Teachers have team leadership responsibilities. | | | | | |
| Teachers are enrolled in administration preparatory programs. | | | | | |

The sixth essential element addresses the network of support that a middle-level school should have in place. Survey items # 7-1 through #7-9 all gathered data about the network of support in schools, yet the reliability of combining them into a scale was not present. Survey item # 7-5, alone, had to be used alone for this essential element. This item asked whether or not a school had an advisory program.

For essential element seven, professional learning, survey items #8-1 - #8-3 were used to gather data about the extent of implementation of the essential element. Item #8-1 had ten different subparts which worked together to be combined into a scale for the essential element. The Cronbach Coefficient Alpha was 0.891957.

Table 21

*Survey Item #8-1*

Describe the extent to which these statements describe the educators in your school.

| | All or almost all staff. | More than half of the staff. | Approximately half of the staff. | Less than half the staff. | None or very few of the staff. |
|---|---|---|---|---|---|
| Educators in my school know the needs and characteristics of students in the middle grades and the instructional strategies and techniques that work best for these students. | | | | | |
| Educators in my school understand the philosophy and mission of the standards-driven middle-level school. | | | | | |
| Educators in my school understand and implement the Regents Policy Statement on Middle-Level Education and the Essential Elements of Standards-Focused Middle-Level Schools and Programs. | | | | | |
| Educators in my school have high expectations for all students. | | | | | |
| Educators in my school are familiar with each of the State's 28 learning standards and incorporate in their own classrooms and work spaces educational experiences that help all students achieve all the standards including those that are outside their own area of content expertise. | | | | | |
| Educators in my school know and understand their subject matter and course curriculum thoroughly. | | | | | |
| Educators in my school know and understand the State's assessment system. | | | | | |
| Educators in my school know and understand how to use data to make curricular and instructional decisions to improve students' academic performance and/or enhance personal development. | | | | | |
| Educators in my school collaborate and cooperate in planning and providing professional learning opportunities. | | | | | |
| Educators in my school routinely and systematically monitor and evaluate student learning to assess and improve instructional effectiveness. | | | | | |

Table 22

*Survey Item #8-2*

Which of these (if any) resources have been used by you or your staff?

| |
|---|
| Regents Policy Statement on Middle-Level Education. |
| The Essential Elements. |
| Essential Elements WebBased Tutorial. |
| Essential Elements Degrees of Implementation Scale. |
| Rubrics for the Essential Elements. |
| Middle-Level Indicators of Achievement Checklists (for non-tested areas). |
| Three Models Information and Application. |
| Essential Elements: Schools-to-Watch (EE: STW) Program. |

Table 23

*Survey Item #8-3*

Please rate the extent to which each of these statements are the focus of your school's professional learning opportunities:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Content knowledge. | | | | | |
| The needs and characteristics of early adolescents. | | | | | |
| Middle level structures and organization. | | | | | |
| Pedagogy. | | | | | |
| Assessment. | | | | | |
| Visits to other classrooms. | | | | | |
| Team process. | | | | | |

For the analysis of the relationship between essential elements degree of implementation and student achievement, the correlation of each of the essential elements scale with student achievement was determined using Pearson's correlation. Thus can the relationship between the two different variables be expressed quantitatively (Springhill, 2003). Multiple regression techniques were applied in a stepwise fashion to seek additional explanatory power. All of the element scales would also be combined to describe the explanatory power of *Essential Elements*,

as a whole, and the relationship to student achievement. To account for the effects of socioeconomic status, data about free and reduced lunch were used as a control.

# CHAPTER 5

## Data Analysis and Interpretation

The *Essential Elements of Standards-Focused Middle-Level Schools and Programs* is the official construct for middle-level schooling in New York State. Data about the extent of implementation of the essential elements was gathered from the middle-level schools and programs across the state. Principals have a more comprehensive understanding of their program than any other staff members. As the leaders of their schools, principals were the survey respondents in this study.

Data about middle-level programs and practices were collected from middle-level schools (schools with a seventh grade) from across the state with the exception of New York City. New York City schools were not included in the study population because the regulations for schools in that city differ from those of the rest of the state. It was not possible to assume that *Essential Elements* was providing the de facto construct for middle-level education in New York City. Nonpublic schools and charter schools were not included in the population. The population therefore consisted of 754 of the remaining middle-level schools.

Because contact information for all of the principals in the 754 middle-level schools was available from the State Education Department, all were included in the study. Of the 754 schools, 188, or 24.9% of the population, provided data. Due to the fact that student achievement data were not available for three of the responding schools, they had to be eliminated from the analysis, which left data for 185 out of 754 schools, which is 24.5% of the population. At a 95% confidence level, the margin of error is 6.2%.

**Summary of Responses to the Survey: Essential Element 1**

The *Essential Elements of Standards-Focused Middle-Level Schools and Programs* begins with a declaration that middle-level schools should be focused on the academic and personal development of every student (New York State Education Department, 2003a). The *Essential Elements* asserts that the dual goals of academic and personal success are interdependent; academic success is dependent upon personal development, and personal well-being is dependent on academic achievement.

Ninety-two percent of the middle-level schools from which data were collected reported that they had a mission statement that explicitly referenced *both* the academic and personal needs of students, which is the expectation of essential element 1: mission and vision. It is possible to drill down to a more specific level with regard to the reported beliefs of school staffs. Table 24 reflects the commitment by a school staff to each component of the essential element that addresses mission and vision.

Table 24

*Staff Commitment to Attributes of Essential Element 1*

| Attribute of essential element 1: mission and vision | % of principals reporting total or near-total staff commitment to attribute |
|---|---|
| Ensuring for each student a safe, inviting, trusting, and mutually respectful learning environment that offers both physical and psychological safety. | 78.2% |
| Accepting—individually and collectively—responsibility for the educational and personal development of each and every student. | 66.1% |
| Providing each student with a variety of learning experiences that are academically challenging, developmentally appropriate, and personally relevant in order for each of them to make informed educational and personal decisions. | 55.5% |
| Working together to ensure that all students achieve at high levels and, with appropriate guidance and structure, develop independence and responsibility. | 54.6% |
| Developing the whole child, intellectually and academically, personally and socially, physically, emotionally, and ethically. | 54.5% |
| Connecting each young adolescent in positive ways with the school and with caring adults within the school. | 52.1% |
| Providing a successful transition from the elementary grades to the middle grades to the high school grades and from childhood to adolescence. | 45.1% |
| Establishing partnerships with the home and the community. | 17.6% |

More than half of all middle-level schools that responded to the survey reported being strongly committed to most of the attributes of essential element 1. Less than half of the schools

reported that their staffs are strongly committed to the provision of successful transitions. Few staffs are strongly committed to the establishment of home and community partnerships.

Essential element one declares that personal development and academic achievement are mutually dependent and intertwined with each other. In order to determine whether the leaders of middle-level schools thought that the two attributes of essential element one are related, the correlation of the individual components of essential element one (the focus on academics, social, physical, emotional, and ethical characteristics) were compared to the overall correlation between the components. In the data-collection survey, respondents were prompted to fill out a matrix that indicated the level of attention paid to academic, social, physical, emotional, and ethical needs. Respondents indicated that an academic focus is much more common than a focus on the other characteristic (see Table 25).

Table 25

*The Extent to Which the Characteristics Are a Focus of the School*

| Focus characteristic | Exclusive focus | Primary focus | Lesser focus | Not a focus |
|---|---|---|---|---|
| Academics | 11% | 88% | 1% | 1% |
| Social | 4% | 77% | 19% | 1% |
| Physical | 3% | 49% | 47% | 1% |
| Emotional | 4% | 73% | 23% | 0% |
| Ethical | 4% | 54% | 40% | 2% |

Table 26 shows that attention to academics is thought of very differently than the other foci, with a correlation coefficient of 0.078, which was considerably different from any of the

other correlation coefficients, the remainder of which were relatively close to one another (ranging from 0.579 to 0.43) but none of which was high.

Table 26

*Comparison of Different Foci of Middle-Level Schools With Each Other*

| Characteristic | Correlation of characteristic with the group of characteristics as a whole (Cronbach's Alpha) |
|---|---|
| Attention to academic needs | 0.077592 |
| Attention to social needs | 0.426838 |
| Attention to physical needs | 0.446522 |
| Attention to emotional needs | 0.579269 |
| Attention to ethical needs | 0.457501 |

Respondents indicated that they believe that social needs, physical needs, emotional needs, and ethical needs are somewhat related to each other. Almost all of the respondents indicated that a focus on academics was important. Their responses indicate that they consider social needs, physical needs, emotional needs, and ethical needs to be different than academic needs and not as important as academic needs.

**Summary of Responses to the Survey: Essential Element 2**

Essential element two of *Essential Elements of Standards-Focused Middle-Level Schools and Programs* describes the educational program of a middle-level program. The programmatic aspects of the school include: an educational program that is comprehensive, challenging, purposeful, integrated, relevant, and standards-based (New York State Education Department, 2003a). The components within this essential element describe the school program. Items in this part of the survey ask whether evidence of this essential element would be observable to a visitor. Table 27 displays the number of responses to the survey question asking whether these

attributes would be evident to a visitor on any given day. Table 28 expresses the percentage of principals of the responding middle-level schools who reported that almost all of the components would indeed be observable to a visitor most of the time (observable all, most, or more than half of the time).

Table 27

*Observable Attributes of Essential Element 2*

| | **Observable all/almost all the time throughout the school.** | **Regularly observable in more than half the school.** | **Regularly observable in approximately half the school.** | **Regularly observable in less than half of the school.** | **Not, or very little, observable implementation.** |
|---|---|---|---|---|---|
| The overall program emphasizes not only intellectual development but also personal, social, physical, and ethical development. | 61 | 74 | 31 | 7 | 1 |
| The program is thoroughly challenging, rigorous, and purposeful. | 59 | 84 | 26 | 2 | 1 |
| The program explicitly embraces and encompasses all of the state's 28 Learning Standards. | 71 | 64 | 29 | 6 | 3 |
| The program emphasizes interdisciplinary connections, and promotes shared responsibility for the standards among all content areas. | 29 | 63 | 59 | 18 | 5 |
| The program is explicitly articulated vertically and horizontally, within and across the various curricular areas, learning standards, and grade levels. | 46 | 69 | 40 | 11 | 6 |
| A common set of learning skills (e.g., how to study, how to conduct research, how to read for understanding, how to take notes) is in place across all grades and subject areas and taught and reinforced in each grade and subject area. | 29 | 70 | 49 | 21 | 5 |
| The program emphasizes reading, writing, and mathematics (literacy and numeracy) across the subject areas, with expectations for performance that are consistent across and within the disciplines and commonly understood by teachers, students, and parents. | 58 | 59 | 41 | 13 | 3 |
| The program has explicit, published performance expectations that are common across all grades and subject areas (e.g., students must write in complete sentences). | 48 | 59 | 37 | 21 | 8 |

| | | | | | |
|---|---|---|---|---|---|
| The program is articulated with the elementary feeder schools and with the secondary receiving schools, building on the foundational knowledge and skills of the elementary grades and, in doing so, preparing students for success in high school. | 46 | 60 | 48 | 14 | 3 |
| There are up-to-date written curricula (that are based on and aligned with the state's learning standards), instructional support, and learning aids for all subject areas. | 78 | 61 | 25 | 8 | 1 |
| The program includes diagnostic assessments (similar in design to the state's assessments) that regularly and routinely monitor the learning of each student relative to the state's standards and community expectations. | 56 | 64 | 29 | 18 | 6 |
| The program offers opportunities for the development of personal responsibility and self-direction. | 58 | 79 | 31 | 4 | 1 |
| The program encourages students to pursue personal interests, engage in school and community activities (e.g., sports and clubs), explore potential futures and careers, develop useful social, interpersonal, and life skills needed to live a full and productive life, and nurture a "love of learning." | 72 | 74 | 20 | 7 | 1 |
| The program provides targeted and timely academic intervention services that are based upon a careful assessment of the academic, social, and emotional needs of students at risk of not meeting the state's Learning Standards. | 83 | 61 | 26 | 2 | 1 |
| The program engages and involves the family, the local community, and the world outside school in the education and personal development of young adolescents. | 17 | 66 | 55 | 34 | 2 |

Table 28

*Percent of Time That Essential Element Two Attribute is Observable*

| **Attribute of essential element 2: Educational program** | **% of principals reporting that attribute is readily observable more than half of the time** |
|---|---|
| Provides targeted and timely academic intervention services that are based upon a careful assessment of the academic, social, and emotional needs of students at risk of not meeting the state's learning standards. | 83.2% |
| Encourages students to pursue personal interests, engage in school and community activities (e.g., sports and clubs), explore potential futures and careers, develop useful social, interpersonal, and life skills needed to live a full and productive life, and nurture a "love of learning." | 83.9% |
| Has up-to-date written curricula (that are based on and aligned with the state's learning standards), instructional support, and learning aids for all subject areas. | 80.3% |
| Is challenging, rigorous, and purposeful. | 83.1% |
| Offers opportunities for the development of personal responsibility and self-direction. | 79.2% |
| Is comprehensive and inclusive, embracing and encompassing all of the state's 28 learning standards. | 78.0% |
| Emphasizes not only intellectual development, but also personal, social, physical, and ethical development. | 77.6% |
| Includes diagnostic assessments (similar in design to the state's assessments) that regularly and routinely monitor the learning of each student relative to the state's standards and community expectations. | 69.4% |
| Emphasizes reading, writing, and mathematics (literacy and numeracy) across the subject areas with expectations for performance that are consistent across and within the disciplines and commonly understood by teachers, students, and parents. | 67.2% |
| Is articulated vertically and horizontally, within and across the various curricular | 66.9% |

| | |
|---|---|
| areas, learning standards, and grade levels. | |
| Has performance expectations that are common across all grades and subject areas (e.g., students must write in complete sentences). | 61.8% |
| Is articulated with the elementary feeder schools and with the secondary receiving schools, building on the foundational knowledge and skills of the elementary grades and, in doing so, preparing students for success in high school. | 62.0% |
| Has a set of learning skills (e.g., how to study, how to conduct research, how to read for understanding, and how to take notes) that is common across all grades and subject areas and taught and reinforced in each grade and subject area. | 56.9% |
| Reflects interdependence, emphasizes cross-program connections, and promotes shared responsibility. | 52.29% |
| Engages and involves the family, local community, and the world outside school in the education and personal development of young adolescents. | 47.7% |

A review of these data indicates an incomplete implementation of the *Essential Elements* construct. At best, 83.9% of schools have a component that is readily observable in their school. At worst, less than half of schools have implemented a part of the *Essential Elements* construct. This is a far cry from comprehensive implementation with all schools reporting that they had implemented all of the *Essential Elements*. The *Essential Elements of Standards-Focused Middle-Level Schools and Programs* construct is incorporated into the regulations of the New York State Education Department, yet many schools report less-than-complete implementation. None of the regulations is readily evident in all middle-level schools, and some are observable in just half of the schools that provided data. These data suggest that implementation of the *Essential Elements* construct is not complete—and therefore blanket statements about the failure

of the middle-level model to provide academic gains ought to be about the failure of implementation.

Not only is implementation of the *Essential Elements* construct incomplete, but the data indicate a great disparity in the extent of implementation.

**Summary of Responses to the Survey: Essential Element 3**

Essential element three of *Essential Elements of Standards-Focused Middle-Level Schools and Programs* concerns the organizational structure of the school (New York State Education Department, 2003a). The element addresses structures such as the master schedule, grade-level configuration, technology, and transitions.

The definition of a middle-level school employed in this study, based on the practice of New York State, includes any school with a seventh grade in it. In addition to grade seven, all but 2% of the responding schools also included an eighth grade. Sixth grade was also a part of the middle-level school in 86% of the responding schools. Table 29 displays these data.

Table 29

*Grades That Are Included in Middle-Level Programs and Schools*

| Grade level | % of reporting schools that include that grade |
|---|---|
| Pre-K | 7.8% |
| Kindergarten | 10.5% |
| 1st grade | 10.5% |
| 2nd grade | 10.5% |
| 3rd grade | 10.5% |
| 4th grade | 12.4% |
| 5th grade | 26.1% |
| 6th grade | 86.6% |
| 7th grade | 100% |
| 8th grade | 98% |
| 9th grade | 17% |
| 10th grade | 16.3% |
| 11th grade | 15.7% |
| 12th grade | 15.7% |

Essential element 3.4 recommends that middle-level schools contain at least three of the four middle grades (the four middle grades being grades 5, 6, 7, and 8). The distribution of these data suggests that most schools—nearly seven out of every eight—included three of the recommended grades. The reason that it is important to include at least three grades is so that each year is not a transition year. Two-year schools mean that in each year students are either transitioning in or out of the school. Students are less likely to feel like they belong to the school when they are either coming or going. It is important to note that approximately one-quarter (26.1%) of responding schools included the fifth grade.

Depending on the size of a particular grade in a middle-level school, a grade might be organized into interdisciplinary teams of teachers who share students and share a schedule. Eighty-five percent of the responding schools reported that teachers, and in turn students, are organized into interdisciplinary teams. In middle-level schools that include a fourth or fifth grade, the number of teachers who comprise the interdisciplinary team is frequently two. At sixth, seventh, and eighth grades, interdisciplinary teams most commonly include four or five teachers. Few schools in the study reported employing interdisciplinary teams at the ninth grade in the middle-level school, suggesting that ninth grade continues to be considered more of a high school grade than a middle-level grade. The subject areas that were most commonly reported as a part of interdisciplinary teams were, in descending order: English language arts, social studies, science, and mathematics. Special education teachers are members of the interdisciplinary team 68% of the time. It is far less common for other subject areas to be included on the interdisciplinary team. Table 30 displays the prevalence of different content areas being included on interdisciplinary teams.

Table 30

*Frequency of Content Areas Included on Interdisciplinary Teams*

| Content area | % of reporting schools that include that grade on interdisciplinary teams |
|---|---|
| English language arts | 98.4% |
| Social studies | 98.4% |
| Mathematics | 97.7% |
| Science | 97.7% |
| Special education | 68.8% |
| Guidance/school counselor | 38.3% |
| Reading | 34.4% |
| LOTE/world languages | 30.5% |
| Technology education | 18.8% |
| Home and career skills/ family and consumer science | 17.2% |
| Health | 13.3% |
| Art | 9.4% |
| Physical education | 7.0% |
| Music | 6.3% |

Although most middle-level schools are organized into interdisciplinary teams, the frequency with which interdisciplinary teams meet varies. Essential element 3.2 states that teams should have common planning time (New York State Education Department, 2003a). Responding principals indicated that 35% of teams meet every day; other teams meet less frequently. Interestingly, a few interdisciplinary teams don't meet regularly, suggesting that perhaps these are teams in name only. Table 30 details the frequency of interdisciplinary team meetings. Most teams do not meet every day. More than half of teams meet less than three times per week.

Table 30

*Frequency of Interdisciplinary Team Meetings*

| Number of times teams meeting in a typical week | Percent of responses |
|---|---|
| Five times | 35.0% |
| Four times | 4.9% |
| Three times | 25.2% |
| Two times | 16.3% |
| Once | 15.4% |
| Teams do not regularly meet | 3.3% |

What do interdisciplinary teams of teachers do together? Despite the fact that almost all interdisciplinary teams have at least some common planning time, there are very few things that all teams regularly do. Table 32 describes the percentage of teams that consistently engage in identified practices. The items on this list that interdisciplinary teams carry out least frequently are those items related to curriculum and instruction. These data are inconsistent with the data reported by schools about essential element one and collaborative commitment to the academic achievement of all students. This might mean that the emphasis on academic achievement is shallow and, in fact, less than casually reported. The fundamental premise of *Essential Elements* is that there is dual emphasis on the personal and academic achievement of all students. Based on these data, interdisciplinary teams do not appear to maintain these complementary emphases. Rarely do teams consistently focus on curricular or instructional initiatives—only one in four teams even makes it a high priority to coordinate assignments and assessments which really is about coordination of time expectations than actual attention to curriculum and instruction.

Table 32

*Focus of Interdisciplinary Teams*

| Component of interdisciplinary team work | Percent of interdisciplinary teams that report an item as a consistent part of their regular work |
|---|---|
| Focus on student behavior | 39.4% |
| Special event planning | 38.6% |
| Social and emotional needs of students | 32.3% |
| Use of an agenda for meetings | 28.3% |
| Common strategies and expectations | 29.9% |
| Assignment and assessment coordination | 25.4% |
| Curriculum coordination | 16.5% |
| Curriculum and instruction focus | 10.2% |

Essential element three recommends that schools have schedules with flexible time assignments within blocks of time to encourage interdisciplinary programs and the creative use of time (New York State Education Department, 2003a). Despite this recommendation, more than half (56.6%) of all middle-level schools continue to use a traditional schedule. Just 30% of schools use some sort of scheduling that includes extended periods of time. Table 33 expresses these data. These data might provide evidence for an argument that many middle-level schools continue to organize their school day in ways that are more reminiscent of junior high schools than as recommended in *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.

Table 33

*Schedule Format*

| Building master schedule format | Percent of reporting schools using schedule format |
|---|---|
| Fixed number of periods that meet each day (traditional bell schedule) | 56.6% |
| Flexible block schedule | 16.4% |
| Longer blocks with most classes not meeting each day | 10.5% |
| Other | 16.4% |

Essential element three stresses the importance of students being involved beyond the regular school day. The element recommends that schools provide a variety of activities for their students, including extracurricular, co-curricular, and service learning. Table 34 displays these data. Schools reported that the most common activities for students is participation in extracurricular sports, with 60.2% of schools reporting that more than half of their students participate in sports. In addition to sports, 43.7% of schools reported that more than half of their students participate in clubs. Fewer students are involved in service learning, with just 19.1% of schools reporting that more than half of their students are involved in such activity. These percentages suggest that many students in most, if not all, middle-level schools and programs are not involved in structured school-related activities outside of the school day.

Table 34

*Student Participation in School-Related Activities Outside of the School Day*

| Type of activity | Percent of reporting schools in which more than half of the students participate in the activity |
|---|---|
| Extracurricular sports for 7th and 8th graders | 60.2% |
| Clubs | 43.7% |
| Informal after school extra help with teachers | 37.1% |
| Coordinated service learning opportunities | 19.1% |
| Intramurals | 18.5% |
| Formal after school programs such as 21st-Century Learning Center | 6.6% |

Although analysis of just three of the seven elements from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* has been presented to this point, it appears that implementation of the *Essential Elements* construct is by no means complete or comprehensive in the state. Essential element three sets guidelines for the program and structure of middle-level schools and programs. Schools are not uniformly implementing these guidelines.

**Summary of Responses to the Survey: Essential Element 4**

The fourth of the seven elements from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* focuses on the instructional program of middle level schools: "Classroom instruction appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers" (New York State Education Department, 2003a). The essential element states that classroom instruction should be "… appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers" (New York State Education Department, 2003a). The essential element details the practices that are considered to be appropriate to students age 10-14. The element does not state that these

practices are appropriate only for students this age. In fact, many of the strategies included in essential element four are found in a variety of literature. Certain strategies, nonetheless, have been incorporated into *Essential Elements*. According to New York State Education Department (2003a) and as detailed in *Essential Elements*, teachers:

- Are caring and respectful in their interactions with students and with other adults.
- Provide instruction that is standards-based, challenging, rigorous, and purposeful.
- Know and understand the needs and developmental characteristics of young adolescents.
- Have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques.
- Know and understand each of the State's 28 learning standards and - when and where appropriate - reinforce them routinely during regular classroom instruction.
- Use a range of successful, research-based teaching strategies that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences.
- Involve students in their learning, encouraging them to contribute to their learning experiences, to make choices, to explore, to question, to experience, to learn, to grow, and to develop social, interpersonal and leadership skills in addition to academic proficiency.
- Vary activities to maintain student interest.
- Use technology and other instructional resources purposefully to support and enhance learning.

- Focus instruction on thinking, reasoning, and problem solving and, at the same time ensure that students acquire necessary content and subject matter.
- Use interdisciplinary approaches to help students integrate their studies and meet learning standards.
- Use flexible grouping based upon student needs and interests to help each student achieve the learning standards, with students changing groups often, depending on individual needs and program purposes.
- Use classroom assessments that reflect the State's learning standards and are aligned with State assessments.
- Use classroom assessments that are instructionally useful indicators of individual student growth and performance not only to monitor each student's progress in meeting the State's learning standards but also to plan instruction.
- Use student data, both personal and achievement, to make curricular and instructional decisions.
- Use cooperative learning groups and peer-tutoring opportunities to develop social and interpersonal skills in addition to academic proficiency.
- Consult with each other and with other school personnel. Teachers with regular education assignments and those assigned to programs for students with special needs work closely together.
- Maintain performance expectations that are consistent and interrelated across and within subject areas.
- Inform and involve parents of middle-level students in their children's education by helping them understand the learning standards their children must meet, the

instructional program, their children's progress, and how to help their children at home with schoolwork, school decisions, and successful development through adolescence.

- Are themselves learners who are constantly engaged in professional and intellectual growth activities.
- Recognize that they must work together cooperatively and collaboratively - rather than individually and in isolation - to ensure that all of their students achieve at high levels and meet all of the State's learning standards.

While the list of characteristics might not be considered exhaustive, it is, nonetheless, the list of characteristics that *Essential Elements* identify for middle-level teachers in New York State and for the purposes of this study these characteristics are considered to be the developmentally-appropriate teaching practices.

Table 35 describes the extent to which certain generalizations can be made about the teaching staff in middle-level schools. Principals in almost three-quarters of schools report that all or almost all of their teachers are consistently caring and respectful in their interactions with others.

An examination of other generalizations about teachers in these schools presents a worrisome picture. The most basic principle of *Essential Elements* is that good middle-level schools focus on both the academic and the personal success of students (New York State Education Department, 2003a). Principals in slightly more than half of the schools, 57.6%, report that all or almost all teachers have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques. Therefore, it can be concluded that middle-level teachers in the remaining schools are not consistently providing the

best instruction to their students. In less than half (43.1%) of responding schools do all or almost all teachers know and understand the needs and developmental characteristics of their students. In many schools the teachers don't have a deep understanding of their students or their discipline. *Essential Elements* identifies content expertise, pedagogical expertise, and thorough understanding of the needs of early adolescents as important. Principals in many schools, however, report that their teachers do not consistently exhibit these characteristics. In less than half of schools do teachers provide instruction that is consistently rigorous and challenging.

Table 35

*Characteristics of Teachers in New York State Middle-Level Schools*

| **Characteristic of teaching staff** | **Percent of schools reporting that all or almost all of the staff exhibit the characteristic** |
|---|---|
| Are consistently caring and respectful in their interactions with students and with other adults. | 72.9% |
| Have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques. | 57.6% |
| Thoroughly know and understand the needs and developmental characteristics of young adolescents. | 43.1% |
| Provide instruction that is consistently standards-based, challenging, rigorous, and purposeful. | 42.4% |
| Know and understand the state's learning standards. | 31.3% |

It can be inferred from these data that either teachers' skills are lacking or the application of good skills is lacking in many of the schools that serve middle-level students. Teachers in responding schools participate in little professional learning other than the school-provided, relatively infrequent superintendent conference days. Occasionally, teachers participate in

BOCES-provided workshops. Rarely do teachers attend state or national professional conferences. Few teachers visit other schools or even visit other classrooms within their school. Table 36 presents these data. Some of these activities can be expensive, and the financial situation in many schools might be limiting participation in activities such as attendance at national/international conferences. Other activities, such as participation in teacher-led groups, school visitations, and classroom visits, cost little or nothing. Yet it is rare that more than half of the teachers in middle-level schools participate in these professional learning opportunities. Professional learning does not seem to be a priority in many middle-level schools and programs.

Table 36

*Rate of Teacher Participation in Professional Learning Opportunities*

| Source of professional learning | % of reporting schools in which more than half the staff participates |
|---|---|
| Superintendents conference day | 95.7% |
| BOCES-provided workshops | 48.2% |
| Teacher-led in-service | 36.4% |
| Teacher-led study groups | 22.7% |
| Local, one-day workshops from commercial vendors | 19.7% |
| Statewide conferences from professional associations | 12.8% |
| Collaborative planning | 10.6% |
| National/international conferences from professional associations | 8.5% |
| Visits to other schools | 4.2% |
| Visits to other classrooms in the school | 4.2% |

As has been the case in the data presented thus far, implementation of the *Essential Elements* construct is far from complete.

**Summary of Responses to the Survey: Essential Element 5**

Essential element five of *Essential Elements of Standards-Focused Middle-Level Schools and Programs* states that it is vital that middle-level schools and programs have strong educational leadership that encourages, facilitates, and sustains involvement, participation, and partnerships (New York State Education Department, 2003a). Table 37 includes, for essential element five, a list of skills and knowledge necessary for middle-level leaders, along with data on the source of the skills and knowledge.

Table 37

*Source of Skills and Knowledge of Middle-Level Leaders*

| Skill or knowledge area | Included in certificate program | From conference or workshop | Acquired through experience | Learned through reading |
|---|---|---|---|---|
| Knowledge and understanding of the unique needs and developmental characteristics of young adolescents. | 10% | 24% | 37% | 29% |
| Knowledge and understanding of the essential elements of a standards-focused, high-performing middle-level school or middle-level program. | 6% | 29% | 34% | 32% |
| Knowledge and understanding of each of the 28 learning standards and how they interrelate. | 10% | 23% | 33% | 33% |
| Knowledge and understanding of the state's assessment system. | 6% | 25% | 40% | 29% |
| Understanding of the subject matter in the middle grades and its interconnections, of different approaches to student learning, and of diverse teaching strategies. | 8% | 24% | 39% | 29% |
| Creating, promoting, and sustaining a school culture of mutual support and collective responsibility for the educational and personal development of each young adolescent. | 13% | 23% | 38% | 26% |

| | | | | |
|---|---|---|---|---|
| Articulation and maintenance of high standards for classroom instruction and student performance. | 16% | 24% | 35% | 26% |
| Expressing high expectations for students and staff. | 15% | 21% | 39% | 25% |
| Knowledge and understanding of a range of successful, research-based teaching techniques that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences. | 14% | 27% | 29% | 29% |
| Involving staff and others in the operation of the school or program, empowering and encouraging them to contribute and to make decisions that benefit students. | 16% | 22% | 38% | 24% |
| Providing students with opportunities to assume significant and meaningful leadership roles in the school. | 7% | 18% | 46% | 30% |
| Supporting and encouraging teachers, individually and collectively, to take risks, to explore, to question, to try new instructional approaches, to continue as learners, and to grow. | 12% | 22% | 40% | 26% |
| Promoting and facilitating inter-school cooperation, collaboration, and communication with feeder elementary schools and receiving high schools. | 7% | 22% | 49% | 22% |
| Informing and involving parents of middle-level students in their children's education by helping them understand the needs and developmental characteristics of young adolescents, the learning standards their children must meet, the instructional program, their children's progress, and how to help their children at home with schoolwork, school decisions, and successful development through adolescence. | 9% | 23% | 42% | 26% |
| Promoting school/community partnerships and involving members of the community in school activities and initiatives, empowering and encouraging them to contribute and make decisions that benefit students. | 10% | 20% | 45% | 25% |

For all of the skills and knowledge topics, principals identify the primary source of skills and knowledge as experience rather than participation in structured learning experiences. Leaders identify the source of their skills as experience and not participation in professional development. Learning from reading literature is mentioned by principals as being the second largest influence on skills and knowledge. The least influential source of skills and knowledge for leaders is their formal, certificate preparation. How long ago a principal was in a formal, certificate program could influence whether he or she identified it as a primary source of knowledge.

The average length of experience as a middle level principal was 7.1 years. Responding principals indicated that they had been principal of their present school an average of 6.6 years. Experience as an assistant principal was low, just 1.8 years on average.

In addition to the administration, schools also have teachers who provide leadership in middle-level schools. Under the educational leadership essential element it is written that leaders must "involve staff and others in the operation of the school or program, empowering and encouraging them to contribute and to make decisions that benefit students" (New York State Education Department, 2003a). In more than half of the middle-level schools and programs, teachers participate in a shared decision making process (55.3%). In 47.9% of middle-level schools, more than half of the teachers participate in building committees.

**Summary of Responses to the Survey: Essential Element 6**

According to the sixth element from *Essential Elements of Standards-Focused Middle-Level Schools and Programs*, "Every young adolescent needs access to a system that supports both academic achievement and personal development" (New York State Education Department, 2003a). Because of all of the changes students experience at this time in their life, it is important

that they understand those changes and recognize their impact. As shown in Table 38, in almost all of the middle-level programs students have opportunities to understand the changes associated with early adolescence in their health class (95.1%). In almost all schools, students have access to a school counselor who can help them understand early adolescence, with 95.1% of schools having individual opportunities with counselors, 83.1% having small group opportunities with the counselor, and 50.7% having opportunities in other settings with the counselor. These data suggest that, while students do have access to a school counselor and they do have a health education requirement, few schools report the use of an advisory program that is designed to provide support for early adolescents (29.6%).

Table 38

*Arenas in Which Students Learn About Early Adolescence*

| Source of learning | % of reporting schools in which more the instruction occurs in that way |
|---|---|
| Individually with school counselor | 95.1% |
| In classes, such as on health | 95.1% |
| In groups with a school counselor | 83.1% |
| In classes with school counselor | 50.7% |
| In an advisory program | 26.1% |
| In a homeroom | 20.4% |

An advisory program, also called advisor-advisee, is a program in which small groups of students can receive the support described under essential element six. Such a program exists in less than one-third of middle-level schools. Regarding schools with an advisory program, the data about how frequently these small groups of students meet reveals that only half of the 29.6% of schools with such a program meet daily (see Table 39). In more than a third of the

schools with such a program, the groups meet just once per week. Sessions are also usually short, with two-thirds (67.5%) meeting for 20 minutes or less when they do meet.

Table 39

*Frequency of Advisor-Advisee Sessions*

| Frequency | % of reporting schools in which advisor-advisee groups meet |
|---|---|
| Daily | 54.1% |
| Four days per week | 0% |
| Three days per week | 8.1% |
| Two days per week | 2.7% |
| Once per week | 35.1% |

All schools are required to provide academic support to students who are in danger of not meeting academic standards, as explicitly required in Commissioner's Regulations CR 100.2(ee) (New York State Education Department, 2010a). Although *Essential Elements* calls for a network of support for academic and personal issues, the State Education Department calls more often for academic support than for personal support. Of course, students who are struggling need academic support. But deliberate social, emotional, and physical supports for students are far less common and are implemented less comprehensively than academic supports. Some components of essential element six are implemented more than others. This is additional evidence that the essential elements are incompletely implemented in New York State and that the degree of implementation varies among schools and programs.

**Summary of Responses to the Survey: Essential Element 7**

The seventh essential element details the expectations for professional learning on the part of the adults in schools: "Teachers, administrators, and other school staff in a standards-

focused middle-level school or program need regular, planned opportunities for professional and intellectual growth and development" (New York State Education Department, 2003a). Table 40 details the extent to which educators demonstrate the expected characteristics. Teachers need to know their content, know effective pedagogy and best practices, and know their students. Yet, in less than half of the responding middle-level schools do all, or almost all, teachers know the needs and characteristics of their students (49.6%). In only 27.0% of middle-level schools do educators understand *Essential Elements* and the *Regents Policy Statement on Middle-Level Education*. There is evidence that the learning by the educators in the school may be insufficient and incomplete when it comes to understanding the needs and characteristics of students.

When it comes to knowledge about the 28 New York State Learning Standards, principals in 75.9% of middle-level schools reported that all or almost all teachers know and understand their subject matter thoroughly. This means that in one in four middle-level schools all teachers do not. Beyond having a thorough understanding of their own discipline and content area, *Essential Elements* specifies that all teachers be familiar with the other learning standards. In only 25.7% of schools was it reported that teachers are familiar with the other learning standards.

Table 40

*The Extent to Which These Characteristics Describe Middle-Level Educators*

| Statement | % of reporting schools in which statement describes all or almost all of the staff |
|---|---|
| Educators in the school know and understand their subject matter and course curriculum thoroughly. | 75.9% |
| Educators in the school know and understand the state's assessment system. | 61.4% |
| Educators in the school have high expectations for all students. | 53.2% |
| Educators in the school know the needs and characteristics of students in the middle grades and the instructional strategies and techniques that work best for these students. | 49.6% |
| Educators in the school understand the philosophy and mission of the standards-driven middle-level school. | 37.6% |
| Educators in the school routinely and systematically monitor and evaluate student learning to assess and improve instructional effectiveness. | 34.5% |
| Educators in the school collaborate and cooperate in planning and providing professional learning opportunities. | 34.3% |
| Educators in the school know and understand how to use data to make curricular and instructional decisions. | 27.9% |
| Educators in the school understand and implement the Regents Policy Statement on Middle-Level Education and *The Essential Elements of Standards-Focused Middle Level Schools and Programs.* | 27.0% |
| Educators in the school are familiar with each of the state's 28 learning standards and incorporate educational experiences that help all students achieve those standards. | 25.7% |

*Essential Elements* requires that educators have high expectations for all students (New York State Education Department, 2003a). In this study, it was reported that in 53.2% of middle-level schools all, or almost all, educators have high expectations for all students.

These data, like much of the data presented in this chapter, suggest that implementation of the *Essential Elements* construct is not complete and that it varies from school to school. While it might be unrealistic to expect that every educator display every single one of these characteristics, it appears that implementation of the *Essential Elements* construct is rarely comprehensive.

**Assessing the Measures of the Essential Elements**

The process of constructing the survey that middle-level principals answered was described earlier. The process included research on other similar surveys, item construction, the vetting of those items with middle-level experts, and the piloting of items after each round of revisions. Nevertheless, analysis of the results indicate that not all of the questions in the survey functioned as intended or as well as hoped.

The survey was constructed so that there are multiple items for each essential element. Each element includes many aspects of middle-level education and no single item could get at all of them. The Cronbach's Alpha Coefficient calculation was applied within each essential element's group of questions to see how individual items behaved within it. These results are expressed in Table 41. All of the correlations, except those for essential element 2, are above the 0.70 level, which is generally accepted as the threshold for concluding that the items are, in fact, measuring the construct (UCLA Institute for Digital Research and Education, 2013). The correlation for essential element one is just above that threshold. Therefore, the items in the survey for essential elements one and two are low, and additional refinement of these items

would be beneficial in future iterations. This is discussed further in the limitations section of the next chapter. The correlation for the other groups of questions is high or very high, thus providing evidence that the questions in those groups were measuring the construct as intended.

Table 41

*Cronbach's Alpha for Questions in Each Essential Element group*

| Essential element | Standardized alpha |
|---|---|
| Essential element 1: philosophy and mission | 0.715075 |
| Essential element 2: educational program | 0.634711 |
| Essential element 3: organization and structure | 0.897778 |
| Essential element 4: classroom instruction | 0.920719 |
| Essential element 5: educational leadership | 0.873339 |
| Essential element 6: a network of academic and personal support | 0.891957 |
| Essential element 7: professional learning | 0.765718 |

**Relationships between Essential Elements and Survey Responses**

In order to assess the relationships between the seven different essential elements, the data from each essential element were compared to each other. Calculating the Pearson r described the extent to which the different measures of the essential elements were associated (Sprinthall, 2003). Table 42 expresses the result of this comparison. The highest correlation (.685) is between essential elements two (educational program) and four (classroom instruction). The second-highest correlation (.674) is between essential element seven (adults' professional

learning) and essential element two (educational program). Essential element seven (adults' professional learning) is also highly correlated (.620) with essential element four (classroom instruction). This suggests that the educational program of middle-level schools is related to the instructional practices and that both of these are supported by the adults' professional learning. Overall, the lowest statistically significant correlations were between essential element five (leadership) and the other essential elements. In some cases, there was no statistically significant relationship between leadership and the essential elements, as was the case for mission and vision (essential element 1) and the adults' professional learning (essential element 7).

Essential element six (network of personal and academic support) rarely, if ever, had any statistically significant relationship with another of the essential elements. While this does not necessarily suggest that it does not work in the same manner as the other essential elements, it does suggest that essential element six is either less understood by the respondents or that the items used to collect data about essential element six were flawed.

Table 42

*Correlations of the Seven Essential Elements, Pearson's 2-Tailed*

| | Essential element 1: mission and vision | Essential element 2: educational programs | Essential element 3: organization and structure | Essential element 4: instruction | Essential element 5: leadership | Essential element 6: network of support |
|---|---|---|---|---|---|---|
| Essential element 2: educational programs | r = .550<br>sig. .000** | | | | | |
| Essential element 3: organization and structure | r = .373<br>sig. .000** | r = .500<br>sig. .000** | | | | |
| Essential element 4: instruction | r = .441<br>sig. .145 | r = .685<br>sig. .000** | r = .456<br>sig. .000** | | | |
| Essential element 5: leadership | r = .108<br>sig. .685 | r = .244<br>sig. .001* | r = .203<br>sig. .006** | r = .270<br>sig. .000** | | |
| Essential element 6: network of support | r = .029<br>sig. .695 | r = -.103<br>sig. .162 | r = -.111<br>sig. .134 | r = -.077<br>sig. .297 | r = .132<br>sig. .073 | |
| Essential element 7: professional learning | r = .527<br>sig. .000** | r = .674<br>sig. .000** | r = .366<br>sig. .000** | r = .620<br>sig. .000** | r = .099<br>sig. .179 | r = -.148<br>sig. .045* |

**Correlation is significant at the 0.01 level (2-tailed) *Correlation is significant at the 0.05 level (2-tailed)

Table 43 lists the correlations between each of the essential element's index with student achievement. Most of these were statistically significant at the .05 level. When combined, however, the correlation has statistical significance at the .01 level. The relationship between essential element six and the others was not significant, suggesting that either the element does

not vary with the others or that the way it was assessed in this survey was flawed. Future study will be required to get to the heart of this discrepancy.

Table 43

*Correlations of Each of the Essential Element's Indexes with Student Achievement, Pearson's 2-Tailed*

| | ELA achievement (level 3 or higher) | Math achievement (level 3 or higher) |
|---|---|---|
| Essential element 1 | r = .134<br>sig. .008 | r = .159<br>sig. .033 |
| Essential element 2 | r = .237<br>sig. .001 | r = .174<br>sig. .019 |
| Essential element 3 | r = .158<br>sig. .033 | r = .192<br>sig. .010 |
| Essential element 4 | r = .176<br>sig. .017 | r = .135<br>sig. .070 |
| Essential element 5 | r = .108<br>sig. .685 | r = .244<br>sig. .001* |
| Essential element 6 | r = .020<br>sig. .790 | r = .048<br>sig. .518 |
| Essential element 7 | r = .167<br>sig. .024 | r = .149<br>sig. .045 |

The correlation between ELA and math achievement was .813 with 2-tailed significance of .000.

Each of the degree of implementation measures from the survey used in this study were shown to have a contribution to student achievement (expect for essential element 6 which requires future study with different instrumentation). More than this, however, the data indicate that the each has an impact on student achievement when considered with each other essential element measure. In the analysis, the measure of each essential element was added one at a time, in order of the individual correlation with student achievement, and a statistically significant improvement to the model was noted. This was done while controlling for socioeconomic status

via the free and reduced lunch data for each school. In addition to controlling for free and reduced lunch data, the analysis could have also investigated the impact that the schools' level of resources had. For example, controlling for the combined wealth ratio of the districts in which a school was located could have yielded information about the relationship between schools' resources and implementation of *Essential Elements*. This study did not consider this variable. A subsequent study could do so and might be able to shed additional light about the relationship between *Essential Elements* and student achievement. It could also explore the interaction of socioeconomic status and the level of a school's resources and how that is related to the state of implementation of *Essential Elements*.

**Relationship between Student Achievement and the Essential Elements**

Using SPSS 21, the implementation index for all of the individual essential elements, together, were compared to student achievement (percentage of students scoring a 3 or higher).

In addition to the student achievement data (percentage of students scoring a 3 or higher) that was gathered for each of the schools participating in the study, data about the socioeconomic status of schools was collected. Rates of free and reduced lunch were compared with student achievement data, and it was determined that there is a very high—statistically significant at the .001 level (2-tailed)—negative correlation between free and reduced lunch status and student achievement. For ELA achievement, as measured by the New York State Assessment Program, the correlation was -.765. For math, also according to the New York State Assessment Program, the correlation was -.712. Student achievement was lower where the number of students on free and reduced lunch was higher.

The relationship between socioeconomic status and student achievement dwarfed the relationship between the essential elements, taken as a whole or individually, thus suggesting

that it would be necessary to control for socioeconomic status in order to be able to discern any relationships between the essential elements and student achievement.

At the time of the study, student achievement data were available from the 2007, 2008, and 2009 NYS ELA and mathematics tests. Table 44 and 45 summarize the data for ELA and math, respectively. The calculation of the coefficient of determination, $R^2$, for the overall measures of the essential elements with the measures of student achievement employed in this study identified the amount of variation that can be explained by these measures (Sprinthall, 2003).

Table 44

*R and $R^2$ for Essential Elements and ELA NYS Test Scores (sig. .01)*

| | 2007 | 2008 | 2009 |
|---|---|---|---|
| R | .328 | .298 | .268 |
| $R^2$ | .108 | .089 | .072 |

Table 45

*R and $R^2$ for Essential Elements and Mathematics NYS Test Scores (sig. .01)*

| | 2007 | 2008 | 2009 |
|---|---|---|---|
| R | .304 | .312 | .298 |
| $R^2$ | .092 | .097 | .089 |

These values indicated that the extent of implementation of the essential elements, as measured by the survey, can explain approximately 10% of the student achievement as measured

on the NYS ELA and mathematics tests. For ELA, specifically, 11% of the variation in achievement can be explained for the 2007 data. For mathematics, 9% of the variation in achievement is explained (for 2007 data). This means that the implementation of the essential elements makes a difference in the achievement of students in middle-level schools. Ten percent of the achievement is connected to implementation.

Although the data about the extent of *Essential Elements* implementation was gathered in 2007, the survey results were compared to student achievement, as measured by the NYS assessments, in subsequent years. As might be expected, the relationship weakens in the years after 2007, suggesting that intervening variables and changes in schools interfere with the relationship and lessen it. As personnel and programs change in schools there might be changes in the schools relating to essential elements implementation.

In any case, the predictive power of essential elements implementation pales in comparison to the impact of socioeconomic status on student achievement. Nonetheless, the implementation of the essential elements does have a measurable and statistically significant impact on the primary indicator of student achievement in New York State: the state tests. The approximately 10% that can be attributed to essential elements implementation can be the difference between being on one of the state's accountability lists or off of it. For students, it can be the difference between needing academic intervention or not.

# CHAPTER 6

## Discussion of Findings

### Introduction

Far too little research had been done about how the comprehensive implementation of a middle-level construct was impacting student achievement to justify definitive conclusions; yet such conclusions were being put forward in the media. The collection of studies that have been done on the subject was not as robust as it should be, and this paucity of research created an opening for ill-informed claims in the media about the failures and shortcomings of middle-level education. Yet, the modest amount of research that has been done is helpful.

Lee and Smith (1993) found a positive association between implementation of a middle-level construct and student achievement, student engagement, and equity. Felner concluded that middle-level schools with more implementation had higher achievement than those schools with less implementation or without implementation (Felner, et al., 1997). The Middle Start project reached the conclusion that schools participating in the Middle Start grant-funded reform showed achievement gains in both reading and math (Mertens, Flowers, & Mulhall, 1998). McEwin and Greene (2011) identified higher achievement in both mathematics and reading in recognized middle-level schools as compared to the random sample of schools.

In New York State, it was shown that high-performing schools were implementing more of the elements from *Essential Elements of Standards Focused Middle-Level Schools and Programs* than low-performing schools (Payton & Zeller, 2000 and Payton, 2001). The combined impact of the findings in these studies was not compelling enough to silence critics, who, despite this research, concluded that the middle-level movement had not fulfilled its promise (Tamer, 2012).

The situation is further complicated by the fact that little is known about the actual practices within middle-level schools. Only two states, Missouri and Arkansas, have conducted comprehensive surveys to learn about actual practices. In New York State, there is no accountability mechanism to compel implementation of the essential elements, which is required by regulation. In the absence of an accountability mechanism, policy makers and practitioners are in the dark about the extent to which the essential elements are being implemented.

**Overview of the Study**

The purpose of this study was to gather information about practices in New York State middle-level schools and to analyze the relationship between implementation of middle-level practices and student achievement. The method of analysis was quantitative, comparing survey data about the implementation of the construct presented in *Essential Elements of Standards-Focused Middle-Level School and Practices* with achievement data about those same schools on the New York State Assessment System. The survey data describes practices in New York middle-level schools that are implementing the essential elements. The subsequent analysis of the relationship between the implementation of middle-level practices and student achievement yielded information about connections between practice and achievement.

The researcher developed, piloted, and implemented a survey to gather information about the implementation of practices that are codified in regulations (New York State Education Department, 2010a) and delineated in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* (New York State Education Department, 2003a). There are seven *essential elements* (see full descriptions of each in Appendix A):

1. Philosophy and mission
2. Educational program

3. Organization and structure
4. Classroom instruction
5. Educational leadership
6. A network of academic and personal support
7. Professional learning

*Essential Elements* reflects national descriptions of good middle-level education that were compiled and contextualized for New York State. Middle-level principals were surveyed in 2007–2008 from across the state, excluding New York City, to gather information about the seven essential elements and the extent of their implementation. Out of 754 schools, 185 provided data, which is 24.5% of the population. A summary of those data was provided in the previous chapter.

Student achievement data for the same school year were obtained from New York State. In this case, the eighth-grade results for the 2007–2008 school year were acquired for both math and English Language Arts. Additionally, information about economic disadvantage (evidenced by free and reduced-rate lunches) for all of the schools was obtained.

Information about the extent of implementation of middle-level practices was compared to free and reduced-rate lunches and student achievement information using unique identifiers, in this case the NYS Basic Educational Data System, or BEDS, Code. The extent of implementation of the *Essential Elements* construct in schools was compared to the student achievement in the same schools. Having these data, side-by-side, provided the opportunity to understand the relationship between essential elements implementation and student achievement.

**Discussion of Findings**

There are two significant generalizations that can be made from the data collected in this study. First, implementation of elements from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* is far from complete in New York State. Second, implementation of the *Essential Elements* construct, where it has occurred, has a statistically significant correlation with student achievement.

As has been previously mentioned, elements from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* are included in the regulations that govern education in New York State (New York State Education Department, 2010a). Yet, the data collected for this study clearly indicate that the extent of implementation of the *Essential Elements* construct is far from complete. To illustrate this, consider Table 46. This chart provides a sampling of evidence, for each of the essential elements, of incomplete implementation.

Table 46

*Example of Levels of Implementation of Essential Elements*

| Essential element attribute | Implementation level |
|---|---|
| Essential element 1: providing each student with a variety of learning experiences that are academically challenging, developmentally appropriate, and personally relevant in order for each of them to make informed educational and personal decisions. | 55.5% of schools reported total or near-total commitment to attribute. |
| Essential element 2: emphasizing not only intellectual development but also personal, social, physical, and ethical development. | 76.9% of schools reported all five of the attributes being observable more than half of the time. |
| Essential element 3: having frequent interdisciplinary team meetings. | 35.0% of interdisciplinary teams meet less than three times per week. |
| Essential element 4: thoroughly knowing and understanding the needs and developmental characteristics of young adolescents. | 43.1% of schools reported that all or almost all the staff exhibit the characteristic. |
| Essential element 5: teachers participating on building committees. | 47.9% of schools reported that more than half of the teachers participate |
| Essential element 6: having an advisory program that meets daily. | 27.9% of schools reported existence of the program. |
| Essential element 7: educators in the school routinely and systematically monitoring and evaluating student learning to assess and improve instructional effectiveness. | 34.5% of schools reported that the statement describes all or almost all of the staff. |

The second major generalization that can be made from this study is that implementation of elements from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* makes a difference in student achievement. There is a statistically significant relationship between the extent of implementation and student achievement. The data from this study suggest that approximately 10% of student achievement can be explained by the extent of implementation of the essential elements. Although the impact that essential elements implementation has is far less than the approximately 65% impact of socioeconomic status, it is statistically significant and should not be ignored. If middle-level schools want to increase student achievement they should more completely implement the essential elements.

**Implications**

Middle-level schools should begin to, or continue to, fully implement the construct presented in *Essential Elements of Standards-Focused Middle-Level Schools and Programs*. The implementation could have a clear, demonstrable impact on student achievement, which is important not only for individual students but also for schools and districts. Because implementation of the essential elements can explain more than 10% of the variability in student achievement, the difference in student achievement is too great to ignore. For a student, it could mean the difference between meeting and not meeting grade-level expectations.

When students are not able to demonstrate achievement of the learning standards, as reflected by their scores on NYS assessments, they are required to receive Academic Intervention Services. The provision of Academic Intervention Services costs money, because districts must hire staff specifically tasked to provide these supplemental services. Districts must also purchase additional instructional resources to be deployed in the academic intervention classrooms. If, as the data in this study suggest, a school more completely implements the essential elements, student achievement will most likely increase and the need for academic intervention will decrease. Furthermore, if students do not require supplemental academic intervention, they will have more time to take advantage of elective opportunities. The school will also have greater flexibility in scheduling.

To begin with, middle-level schools should examine their mission and vision to ensure that they reflect a commitment to academic and personal achievement for each student. Of course, academic learning is important. But the first essential element includes deliberate attention to physical, social, emotional, and ethical development in addition to academic development: “Every young adolescent deserves a school that values academic achievement and

personal development and provides a supportive environment" (New York State Education Department, 2003a). The first essential element specifically states that goals for all students must be included in such a mission and vision for schools and that schools must commit to "ensur[ing] that all students achieve at high levels." The first essential element also emphasizes effective transition programs between elementary, middle-level, and high school, as well as effective partnerships between school and the educational community. Schools that attend to these aspects of their mission and vision can expect successful implementation to have some impact on the achievement of their students as well as an impact on their overall well-being. Schools and their educational community should periodically review their mission and vision to ensure that a common understanding exists and to ensure that all new staff members and members of the community understand what is important to the school.

When schools attend to their educational program, according to essential element two, they implement a "challenging, standards-based course of study that is comprehensive, integrated, and relevant" (New York State Education Department, 2003a). Schools should have a vertically and horizontally articulated program that includes all of the state's learning standards as well as explicit standards for skills, personal responsibility, community activities, and citizenship. The data collected in this study suggest that this type of comprehensive and coherent educational program is not widely implemented in New York State. Schools that deliberately attend to their complete educational program, encompassing the learning standards but not limited to them, can expect to see a positive impact on their students' achievement.

The educational program, described and detailed according to the second essential element, is delivered though an organization and structure that is described in essential element three. The basic premise of the third essential element is that "young adolescents learn and

develop best in a school that is organized and structured to promote academic achievement and personal development" (New York State Education Department, 2003a). This means that schools have to organize the building and schedule time in a way that is based on the needs of the students and the educational program rather than based on the traditional school schedule or based on the needs of the adults. Essential element three includes a detailed to-do list for middle-level schools and programs (see Appendix A), including components that are not all implemented in schools that serve early adolescents at this time: shared responsibility for student learning, common planning time for teachers, flexible schedules, opportunities for students to participate in community service, active parent involvement, students with disabilities included, integrated technology, and others (New York State Education Department, 2003). Though some of these components may be found in some middle-level schools, the data suggest that comprehensive implementation of all of these components is not common. Schools that want to see increased student achievement should plan for the systematic and deliberate implementation of these components, some of which might be difficult to implement because they run counter to the status quo of adult-centered and discipline-centered organizational structures. Nonetheless, data about interdisciplinary organization (tables 29, 30, and 32) suggest that schools that effectively implement these components can expect to see gains in student achievement.

While it might seem obvious that student achievement is dependent upon good teaching, as described in essential element four, the data suggest that widespread application of the most effective teaching strategies has not yet been realized in our middle-level schools and programs. Essential element four declares that "every young adolescent requires skilled and caring teachers who have a thorough understanding of their subject(s) and of the students they teach" (New York State Education Department, 2003a). Because the data from this study suggest that not all

teachers know their students, know their content, and know and employ good pedagogy, schools and districts should redouble their efforts to ensure that the teachers in middle-level schools are well-trained and effective educators.

A good first step would be to make sure that teachers know the New York State Learning Standards, as the findings of this study indicate that all or almost all the teaching staff is knowledgeable about these standards in less than a third of middle-levels schools. The second natural step would be to ensure that teachers are knowledgeable about the New York State Teaching Standards. Although the New York State Teaching Standards were not yet codified at the time these data were gathered from schools, they are available now and teachers are, in fact, evaluated on these teaching standards (New York State Education Department, 2013a). Now that teachers are being evaluated on the extent to which they know and effectively use the New York State Teaching Standards, leaders will know upon which areas to focus when it comes time to plan professional development and training for their staff. Better teaching would result in more learning and greater student achievement. This study suggests that there would be a demonstrable impact on student achievement if the essential elements, including essential element four, Classroom Instruction, were more completely implemented.

Essential element five of *Essential Elements of Standards-Focused Middle-Level Schools and Programs* declares that "every young adolescent should be educated in schools that have knowledgeable, effective, and caring leaders" (New York State Education Department, 2003a). The data from this study suggest that effective leadership can make a difference because there is a positive and significant correlation between leadership and student achievement. Districts should work to ensure that every middle-level program has effective leadership, both administrative leadership and distributed teacher leadership. This study's survey asked principals

to identify the source of their learning. In most cases, principals reported that they acquired their administrative and leadership knowledge by experience and, to a lesser extent, by reading. While both experience and professional literature can be good sources of information about effective leadership, it would pay student achievement dividends if districts were more deliberate about the training and professional development they provided to their leaders. Administrator preparation programs and institutions of higher education should ensure that their programs provide future administrators with a thorough knowledge of the essential elements and their potential impact on student achievement.

As for teachers, there are now codified expectations for principals: the Educational Leadership Policy Standards: ISLLC 2008 (New York State Education Department, 2012). Principals are evaluated according to these standards; and district officials can use the evaluation results to identify the leadership needs of their principals. School districts, when hiring new principals for their middle-level schools and programs, should ensure that their new hires are knowledgeable about the essential elements and what they can do.

Essential element five also recommends that middle-level schools leverage teacher leadership. Although this study did not collect information specific enough to ascertain the level of implementation of distributed leadership, it is another area to which districts should attend. Another important focus of essential element five is community and parent relationships. These, too, should be monitored and improved as warranted. This study identified a positive and significant correlation between the essential element and student achievement.

The sixth essential element states that every middle-level student "needs access to a system that supports both academic achievement and personal development" (New York State Education Department, 2003). There are eight details contained in this essential element (see

Appendix A), but there are two fundamentals that all students should receive: systematic supports for all students and student-specific supports that students require based on their individual needs and situations. All students, according to essential element 6, should be afforded adult role models, advice, guidance, and youth development services. An important delivery mechanism for many of the systematic supports could be an advisory program for its students, also known as an advisor-advisee program. Yet, as this study discovered, survey respondents report that such programs exist in less than one-third of all middle-levels schools and programs in New York State. One of the first things that a school should consider is the establishment of an advisory program. In addition to systematic supports provided to all students, essential element six also describes the individual support that should be provided to students. This does not mean that schools should react when students need support; it means that schools should develop deliberate systems to make sure that necessary supports are ready and waiting when needed.

The last of the essential elements, essential element seven, says that middle-level schools and programs should be an environment "that values continuous improvement and ongoing professional learning" (New York State Education Department, 2003a). The gist of this essential element is that all of the individuals, and the school itself, should be continuously engaged in the process of learning and getting better—that maintaining the status quo is not an option for middle-level schools and programs. For schools and districts this means targeted professional development, but it also means that school communities should be engaged in collaborative analysis and application of data to the classroom and school decision-making process. It would be prudent for schools and districts to introduce such data analysis and use if they are not already in place.

*Essential Elements* is a comprehensive document that reaches into almost every aspect of a middle-level school. To tackle all of them at the same time might exceed the capacity of the staff and educational community. This study was not designed to rank the importance of the different essential elements, so it is inappropriate to recommend a particular roadmap or course of action for a school based on these data. Schools, armed with the knowledge that implementation of all of the essential elements will have a positive impact on student achievement, would be well served to conduct a thorough self-study to identify which areas are in most need of attention. There are a number of tools available to schools to use to accomplish a thorough self-study, including the *Protocols for Using the Essential Elements of Standards-Focused Middle-Level Schools and Programs* (New York State Middle-level Liaisons Network, 2005).

It can be argued that because the correlation of the essential elements with each other is more powerful than the correlation between any one essential element and student achievement, comprehensive implementation is important. Student achievement would be more likely to increase significantly with implementation of all of the essential elements, but schools not in a position to implement every detail of the essential elements should not fail to take any action because of an inability to take complete action. A district could stage the implementation of essential elements, if that makes the implementation more manageable, understanding that the impacts on student achievement will be less than they would be with complete implementation.

The analysis of the data collected in this study reveals that implementation of the construct presented in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* made a significant difference in student achievement, explaining approximately 10% of student achievement as measured by the NYS ELA and mathematics tests. On this basis, it

appears that student achievement can be positively impacted by implementation of the essential elements. The 10% of student achievement that can be explained by the extent of essential element implementation is far less, though, than the amount of variation in student achievement that is explained by the economic circumstance of the school.

Socioeconomic status, gauged in this study by the free and reduced lunch rate, explains 65% of the variation in student performance. Clearly, and quite significantly, the relationship between socioeconomic status and student achievement is strong and negative. It might be argued that because socioeconomic influences are so much greater than the influence of the essential elements that the impact schools can have on student achievement is slight. On the contrary, not only will implementation of the essential elements make a significant difference, as described in this study, but the emphasis in *Essential Elements* on supporting all aspects of student development, academic and personal, will likely address some of the challenges that economically disadvantaged students face. Though the data collected in this study are not intended to quantify this potential impact, there surely is face validity to the supposition that the *Essential Elements* components of the schools and programs that address high quality instruction and a network of support will benefit economically disadvantaged populations. This is another reason why schools should more completely implement the essential elements.

If the leaders of the New York Stated Education Department are truly interested in increasing student achievement, they should be espousing the importance of essential elements implementation. Each time state leaders present to groups across the state they ought to include reminders about the potential impact of essential elements implementation as well as reminders that the essential elements are, in fact, a requirement of all middle-level schools and programs.

State Education Department communications to teachers, administrators, school boards, and other groups could include this information.

Accountability for implementation of element from *Essential Elements of Standards-Focused Middle-Level Schools and Programs* is needed in the state. New York has many accountability mechanisms—mechanisms that sort schools (and districts) in different categories, labeling some schools as "priority" or "focus" schools. Now, schools are identified as "reward" schools if their student achievement is consistently high enough for their overall population as well as their disaggregated subgroups (New York State Education Department, 2013). There is no accountability system, though, for implementation of the essential elements. If schools and districts were held accountable for the implementation of the essential elements then more schools and districts would implement them, and, in turn, student achievement at those schools would most likely increase. Student achievement, aggregated at a state level, would also increase. By this logic, it makes sense to implement such a state-wide accountability measure.

It is important to note that this study refers to implementation of *Essential Elements of Standards-Focused Middle-Level Schools and Programs* it does not mean the process of implementation of *Essential Elements*. Rather, it refers to the extent to which the essential elements have been implemented. It was not the intent of this study to consider the implementation process. The survey did not gather data about the act of implementing the essential elements and a different body of literature would have to be considered. While challenges of implementing any changes in systems such as schools has considerable effects on all aspects of the organization, a different approach would have to have been employed to be able to make any conclusions or recommendations about the implementation process. Literature about the change process would have had to have been considered in such a study, as well as

literature about school reform. That is outside the scope of this study. Certainly, schools who are attempting to follow the conclusions of this study and implement the essential elements in order to raise student achievement will have implementation challenges. This study offers little guidance in this regard, other than the fact that comprehensive implementation will have a greater impact on student achievement than would piecemeal implementation.

If implementation was easy it could be concluded that more schools would have implemented more of the essential elements than the data collected in this study indicate. Inconsistent and changing leadership, the difficulty of the change process, competing priorities, and the lack of accountability all might account for the less-than-complete degree of implementation (D. Payton, personal communication, March 13, 2014).

**Limitations and Implications for Further Research**

The data about the extent of essential elements implementation was collected via a survey of the principals of middle-level schools and programs in New York State (outside of New York City). The development of the survey followed accepted protocols; a survey that is carefully constructed, tested, and piloted should provide data that are appropriate for use in this type of study (Babbie, 1995; Fowler, 2002). The data in this study, however, do come from the principals of the schools and programs and therefore some amount of subjectivity is to be expected. All of the communication with principals indicated that the information was entirely confidential and offered the choice to opt out of the survey; nevertheless, these principals might not have accurately assessed the presence of the essential elements in their schools. A different data collection procedure might be able to verify the reliability of the data collected in this survey. One possible approach would be to employ the methodology of the only other research done about the essential elements, that of Payton and Zeller (2003) and Payton (2001). In both of

those studies, teams of outside observers were trained to assess the extent of implementation of the essential elements. Then they visited schools to assess the extent of implementation. Outside observers might be able to collect data more objectively than the principals of the schools and programs. However, they would not have intimate knowledge about the practices of the school like that of the principals of the schools and programs. Data collected by trained observers could be juxtaposed with the survey data reported by principals to provide a more complete and accurate picture of the extent of implementation of the essential elements.

During the analysis of the data, certain survey items had to be eliminated due to flaws in the way the item was constructed or because responses to the item were not correlated with other items intended to reflect the same essential element. Items that were intended to collect information about assessment practices and communication with families were eliminated this way. In other cases, items were eliminated because they provided nominal data that couldn't be correlated with other data. This was particularly true for the information collected about which subjects were included in interdisciplinary teams and different grade levels. Even though several middle-level authorities reviewed the survey and made suggestions for improvement, and even though the survey was piloted by middle-level leaders in New York State, some survey items did not work as intended. If the survey used here were revised to include the lessons learned during the data analysis, the resulting data would be more reliable and valid.

Felner (1997) concludes that comprehensive implementation had a greater impact than piecemeal implementation of a middle-level construct. The data from this study support the conclusion that comprehensive implementation is better than incremental implementation of the essential elements, although the inclusion of essential element six was not conclusively supported by the analysis of this study. Until further investigation can explore whether essential

element six is not a critical essential element or whether this study failed to adequately collect data about it, it is better to include it rather than exclude it from school improvement plans. Schools would be ill-advised to neglect the provision of supports for students. Felner gathered information about selected middle schools and used that information to label schools as highly implemented and then proceeded to compare the highly implemented schools to those that were less implemented. He compared student achievement in the two groups and found that the achievement of the highly-implemented schools was higher than that of the less-implemented schools. Within the implementation groups, higher student achievement was noticed with increased implementation. The data collected in this study could be used in this manner in a future analysis. The data could be used to group schools and programs into groups depending on their level of implementation of the essential elements, and then the student achievement between the groups could be compared. This would provide comparisons like those that Felner made and might enhance understanding of how comprehensive implementation impacts student achievement more than incremental implementation.

Since the data in this study were collected, the English Language Arts and mathematics standards have changed in New York State; the Common Core Learning Standards have replaced the previous standards. The learning standards that are referenced in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* are not the Common Core Learning Standards. While the Common Core has not yet been specifically written into *Essential Elements,* they are generally considered to be implicit in references to the NYS Learning Standards. For example, essential element 2.7 emphasizes the importance of literacy and numeracy, in harmony with the Common Core. Another example is essential element 2.6, which identifies specific learning skills, including how to conduct research, how to read for

understanding, and others—all in complete alignment with the Common Core. The New York State Middle-Level Liaisons conducted a crosswalk between *Essential Elements* and the Common Core Learning Standards after their adoption in New York and concluded that no substantive changes needed to be made (personal communication, March 29, 2013).

The instructional practices that are detailed in essential element four are congruent with the instructional practices that the Common Core State Standards identify as important (Student Achievement Partners, 2013). For example, the Common Core State Standards begin with the premise that instruction should be standards-based (Student Achievement Partners, 2013). Similarly, the fundamental premise of *Essential Elements of Standards-Based Middle-Level Schools and Programs*, as indicated in the title as well as in essential elements 2 and 4, is that instruction should be standards-based: "Every young adolescent needs a challenging, standards-based course of study that is comprehensive, integrated, and relevant" (New York State Education Department (2003a). Another example expresses the same, congruent relationship between the Common Core State Standards and *Essential Elements*. *Essential Elements* require that teachers, "Focus instruction on thinking, reasoning, and problem solving and, at the same time ensure that students acquire necessary content and subject matter" (New York State Education Department, 2003a). This is an objective of the Common Core State Standards, too (Student Achievement Partners, 2013).

The Common Core State Standards are the latest version of standards in New York. New York State has had standards since 1996. *Essential Elements* called for a standards-based education but did not detail the particular standards to a level of specificity greater than requiring a standards-based approach: "embracing and encompassing all of the State's 28 learning standards (New York State Education Department (2003a).

As the Common Core is being implemented in New York, the New York State 3–8 Assessment System is also changing. The research conducted in this study compared the extent of implementation of the essential elements with student achievement in the previous assessment scheme that was based on the previous, pre-Common Core version of English language arts and mathematics standards. A replication of this study with the Common Core-aligned versions of the New York State assessments could confirm the impact of essential elements implementation and student achievement. Though replication of this study after the Common Core Learning Standards have been implemented in schools, using data from the revised assessment system, would be worthwhile, it would not be wise to suspend implementation of the essential elements until the results of this study were confirmed. The New York State Learning Standards and the Common Core Learning Standards overlap in many ways, and, in fact, 26 out of 28 other New York State Learning Standards remain unchanged from their previous versions at this time. Integrated implementation of the essential elements and the Common Core makes sense; standards-based education and high expectations for all students are central themes of both of these constructs.

**Closing Comments**

This monograph began with a sampling of the criticisms of middle-level schools and programs and an indictment of the movement to implement middle-level reform. Joel Klein labeled middle-level education as the "the Bermuda Triangle of public education" ("Joel Klein's First Day of School," 2002). The Harvard Graduate School of Education asked: "Do Middle Schools Make Sense?" (Tamer, 2012). The *Post-Standard*, an upstate New York newspaper, editorialized that student achievement is "Soft in the Middle" (2006). As it turns out, these denouncements of the middle-level reform initiative failed to look beyond the name changes of

schools as they took down the "junior high school sign" and replaced it with a "middle school sign." An examination of the schools and programs behind the new signs indicates that implementation of the middle-level construct outlined in *Essential Elements of Standards-Focused Middle-Level School and Programs* is far from complete.

This study concludes that implementation of the construct outlined in *Essential Elements of Standards-Focused Middle-Level Schools and Programs* does have a significant impact on student achievement. Comprehensive implementation has a greater impact than incremental implementation. Quite simply, schools should work to more completely implement the essential elements. Schools should revise their mission and vision for their school and then proceed to revise their program, structure, network of supports, and professional development scheme.

Data about the implementation of the essential elements clearly show that implementation is far from complete. Although that might seem like bad news, it actually signals an opportunity for increasing student achievement in New York State. Schools can use *Essential Elements* to guide structural and programmatic decisions in schools and have confidence that the decisions that are based on effective and more complete implementation of the essential elements will have a positive and significant impact on the achievement of their students.

# Essential Elements of Standards-Focused Middle-Level Schools and Programs

**(Revised 2003)**

*developed by:*
**The New York State Education Department's**
**Middle-Level Education Program**
*in collaboration with*
**The New York State Middle School Association**
**The Statewide Network of Middle-Level Education Liaisons**
**and**
**The New York City Forum to Accelerate Middle Grades Reform**

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The standards-focused middle level school or program is purposeful. It has two basic goals:

**The intellectual development and academic achievement of all students, and the personal and social development of each student.**

In a standards-focused middle-level school or program these two goals are not in conflict or competition; rather, they are compatible, complementary, mutually supportive, and inextricably linked.

The seven essential elements of standards-focused middle-level school programs are:

**1.0 A philosophy and mission that reflect the intellectual and developmental needs and characteristics of young adolescents (youth 10-14 years of age).**

**2.0 An educational program that is comprehensive, challenging, purposeful, integrated, relevant, and standards-based.**

**3.0 An organization and structure that support both academic excellence and personal development.**

**4.0 Classroom instruction appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers.**

**5.0 Strong educational leadership and a building administration that encourage, facilitate, and sustain involvement, participation, and partnerships.**

**6.0 A network of academic and personal support available for all students.**

**7.0 Professional learning and staff development for all staff that are ongoing, planned, purposeful, and collaboratively developed.**

## *Essential Element 1: Philosophy and Mission*

A philosophy and mission that reflect the intellectual and developmental needs and characteristics of young adolescents (youth 10-14 years of age).

> *Every young adolescent deserves a school that values academic achievement and personal development and provides a supportive environment…..*

The middle-level educational program has a purpose beyond linking the elementary grades and the high school. Its basic aims are to educate and nurture. It has a culture of collective and shared responsibility. To be successful, it must attend to both the intellectual development and the personal needs of young adolescents. The philosophy and mission of a standards-focused middle-level school or program must reflect a set of shared beliefs.

The school and staff within the school must commit to:

**1.1** Developing the whole child, intellectually and academically, personally and socially, physically, emotionally, and ethically.

**1.2** Working together to ensure that all students achieve at high levels and, with appropriate guidance and structure, develop independence and responsibility.

**1.3** Accepting - individually and collectively - responsibility for the educational and personal development of each and every student.

**1.4** Ensuring for each student a safe, inviting, trusting, and mutually-respectful l earning environment that offers both physical and psychological safety.

**1.5** Connecting each young adolescent in positive ways with the school and with caring adults within the school.

**1.6** Providing each student with a variety of learning experiences that are academically challenging, developmentally appropriate, and personally relevant in order for each of them to make informed educational and personal decisions.

**1.7** Providing a successful transition from the elementary grades to the middle grades to the high school grades and from childhood to adolescence.

**1.8** Establishing partnerships with the home and the community.

## *Essential Element 2: Educational Program*

An educational program that is comprehensive, challenging, purposeful, integrated, relevant, and standards-based.

> *Every young adolescent needs a challenging, standards-based course of study that is comprehensive, integrated, and relevant.*

A standards-focused middle-level educational program:

**2.1** Emphasizes not only intellectual development but also personal, social, physical, and ethical development.

**2.2** Is challenging, rigorous, and purposeful.

**2.3** Is comprehensive and inclusive, embracing and encompassing all of the State's 28 learning standards.

**2.4** Reflects interdependence, emphasizes cross-program connections, and promotes shared responsibility.

**2.5** Is articulated vertically and horizontally, within and across the various curricular areas, learning standards, and grade levels.

**2.6** Has a set of learning skills (e.g., how to study, how to conduct research, how to read for understanding, how to take notes, etc.) that are common across all grades and subject areas and taught and reinforced in each grade and subject area.

**2.7** Emphasizes reading, writing, and mathematics (literacy and numeracy) across the subject areas with expectations for performance that are consistent across and within the disciplines and commonly understood by teachers, students, and parents.

**2.8** Has performance expectations that are common across all grades and subject areas (e.g., students must write in complete sentences).

**2.9** Is articulated with the elementary feeder schools and with the secondary receiving schools, building on the foundational knowledge and skills of the elementary grades and, in doing so, preparing students for success in high school.

**2.10** Has up-to-date written curricula (that are based on and aligned with the State's learning standards), instructional support, and learning aids for all subject areas.

**2.11** Includes diagnostic assessments (similar in design to the State's assessments) that regularly and routinely monitor the learning of each student relative to the State's standards and community expectations.

**2.12** Offers opportunities for the development of personal responsibility and self direction.

**2.13** Encourages students to pursue personal interests, engage in school and community activities (e.g., sports, clubs, etc.), explore potential futures and careers, develop useful social, interpersonal, and life skills needed to live a full and productive life, and nurture a “love of learning.”

**2.14** Provides targeted and timely academic intervention services that are based upon a careful assessment of the academic, social, and emotional needs of students at risk of not meeting the State’s learning standards.

**2.15** Engages and involves the family, local community, and the world outside school in the education and personal development of young adolescents.

## *Essential Element 3: Organization and Structure*

An organization and structure that support both academic excellence and personal development.

> *Young adolescents learn and develop best in a school that is organized and structured to promote academic achievement and personal development*.

Standards-focused schools with middle-level grades are organized to promote academic excellence and personal development, to establish within staff and students a feeling of belonging and a sense of personal identification with the school and its purposes, and to help young adolescents make a successful transition from the elementary grades to the high school grades and from childhood to adolescence.

A standards-focused school that enrolls young adolescents should:

**3.1** Have teacher teams sharing responsibility for the education and personal development of a common group of students.

**3.2** Have common planning time for those teachers and teacher teams sharing responsibility for a common group of students.

**3.3** Have schedules with flexible time assignments within blocks of time to encourage interdisciplinary programs and the creative use of time.

**3.4** Contain at least three of the four middle grades (the four middle grades being grades 5, 6, 7, and 8).

**3.5** Have comparatively small enrollments so that every student is viewed as an individual and receives personal attention. When the school population is large, have "houses" or schools-within-schools to promote a sense of family, to reduce the feeling of anonymity and isolation among students, and to engender within staff, students, and the community a feeling of belonging and personal identification with the school and with its purposes.

**3.6** Be structured to create close, sustained relationships between students and teachers.

**3.7** Ensure that all students, staff, parents, and families feel secure, valued and respected as significant contributors to the school community.

**3.8** Provide, for those students needing additional help to meet the State's standards, opportunities for additional time, instruction, and personal support (e.g., after school, before school, summer school, reduced class size, tutoring, pupil personnel services, etc.).

**3.9** Provide a variety of co-curricular and extra-curricular activities.

**3.10** Provide opportunities for students to participate in youth service, community service and/or service learning activities.

**3.11** Encourage active parent involvement through a variety of activities.

**3.12** Establish ties with the school community that strengthen connections between school/education and career opportunities.

**3.13** Promote and encourage appropriate participation of pupils with disabilities in all curricular, co-curricular, and extra-curricular activities.

**3.14** Have students with disabilities or other special needs, as well as their programs and services, integrated throughout the school building to ensure access to the same instruction as their peers.

**3.15** Provide support services such as guidance, counseling, and health-related services to all students.

**3.16** Integrate technology into the educational program so that it supports student learning in a purposeful way.

**3.17** Provide a gradual transition from the more self-contained classrooms of the elementary school to the more departmentalized structure of the high school, providing students with opportunities for increasingly independent learning experiences and responsibilities within a safe and structured environment.

## *Essential Element 4: Classroom Instruction*

Classroom instruction appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers.

> *Every young adolescent requires skilled and caring teachers who have a thorough understanding of their subject(s) and of the students they teach.*

Teachers in middle-level classrooms understand and appreciate the emotional, intellectual, physical, psychological, and social changes that are occurring within their students and recognize the behaviors manifested by these changes. They use instructional techniques and processes that capitalize on the unique developmental characteristics and individual needs of early adolescents.

Successful middle-level teachers in a standards-focused school:

**4.1** Are caring and respectful in their interactions with students and with other adults.

**4.2** Provide instruction that is standards-based, challenging, rigorous, and purposeful.

**4.3** Know and understand the needs and developmental characteristics of young adolescents.

**4.4** Have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques.

**4.5** Know and understand each of the State's 28 learning standards and - when and where appropriate - reinforce them routinely during regular classroom instruction.

**4.6** Use a range of successful, research-based teaching strategies that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences.

**4.7** Involve students in their learning, encouraging them to contribute to their learning experiences, to make choices, to explore, to question, to experience, to learn, to grow, to develop social, interpersonal and leadership skills in addition to academic proficiency.

**4.8** Vary activities to maintain student interest.

**4.9** Use technology and other instructional resources purposefully to support and enhance learning.

**4.10** Focus instruction on thinking, reasoning, and problem solving and, at the same time ensure that students acquire necessary content and subject matter.

**4.11** Use interdisciplinary approaches to help students integrate their studies and meet learning standards.

**4.12** Use flexible grouping based upon student needs and interests to help each student achieve the learning standards, with students changing groups often, depending on individual needs and program purposes.

**4.13** Use classroom assessments that reflect the State's learning standards and are aligned with State assessments.

**4.14** Use classroom assessments that are instructionally useful indicators of individual student growth and performance not only to monitor each student's progress in meeting the State's learning standards but also to plan instruction.

**4.15** Use student data, both personal and achievement, to make curricular and instructional decisions.

**4.16** Use cooperative learning groups and peer-tutoring opportunities to develop social and interpersonal skills in addition to academic proficiency.

**4.17** Consult with each other and with other school personnel. Teachers with regular education assignments and those assigned to programs for students with special needs work closely together.

**4.18** Maintain performance expectations that are consistent and interrelated across and within subject areas.

**4.19** Inform and involve parents of middle-level students in their children's education by helping them understand the learning standards their children must meet, the instructional program, their children's progress, and how to help their children at home with schoolwork, school decisions, and successful development through adolescence.

**4.20** Are themselves learners who are constantly engaged in professional and intellectual growth activities.

**4.21** Recognize that they must work together cooperatively and collaboratively - rather than individually and in isolation - to ensure that all their students achieve at high levels and meet all the State's learning standards.

### *Essential Element 5: Educational Leadership*

Strong educational leadership and a building administration that encourage, facilitate, and sustain involvement, participation, and partnerships.

> *Every young adolescent should be educated in schools that have knowledgeable, effective, and caring leaders.*

Standards-focused middle-level schools and programs need purposeful leadership if they are to develop and prosper.

Those in positions of leadership must:

**5.1** Know and understand the needs and developmental characteristics of young adolescents.

**5.2** Know and understand the essential elements of a standards-focused, high performing middle-level school or middle-level program.

**5.3** Know and understand each of the 28 learning standards and how they interrelate.

**5.4** Know and understand the State's assessment system.

**5.5** Have an understanding of the subject matter in the middle grades and its interconnections, of different approaches to student learning, and of diverse teaching strategies.

**5.6** Create, promote, and sustain a school culture of mutual support and collective responsibility for the educational and personal development of each and every young adolescent.

**5.7** Articulate and maintain high standards for classroom instruction and student performance.

**5.8** Have high expectations for students and staff.

**5.9** Know a range of successful, research-based teaching techniques that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences.

**5.10** Involve staff and others in the operation of the school or program, empowering and encouraging them to contribute and to make decisions that benefit students.

**5.11** Provide students with opportunities to assume significant and meaningful leadership roles in the school.

**5.12** Support and encourage teachers, individually and collectively, to take risks, to explore, to question, to try new instructional approaches, to continue as learners, and to grow.

**5.13** Promote and facilitate inter-school cooperation, collaboration, and communication with feeder elementary schools and receiving high schools.

**5.14** Inform and involve parents of middle-level students in their children's education by helping them understand the needs and developmental characteristics of young adolescents, the learning standards their children must meet, the instructional program, their children' progress, and how to help their children at home with schoolwork, school decisions, and successful development through adolescence.

**5.15** Promote school/community partnerships and involve members of the community in school activities and initiatives, empowering and encouraging them to contribute and make decisions that benefit students.

## *Essential Element 6: A Network of Academic and Personal Support*

A network of academic and personal support available for all students.

> *Every young adolescent needs access to a system that supports both academic achievement and personal development.*

Middle-level students need academic and personal support as they experience the changes associated with the transition from childhood to adolescence and from elementary school to high school.

Academic and personal support includes:

**6.1** Adults and older youths to provide positive role models and constant affirmation and recognition.

**6.2** Respect and caring to engender a feeling of self-worth, self-confidence, and personal efficacy.

**6.3** Opportunities to examine, explore, discuss, and understand the changes associated with early adolescence.

**6.4** Counseling and guidance services to assist students and their families in making life, career, and educational choices.

**6.5** A system of two-way communication between the school and the parents and families of its students.

**6.6** A process for informing parents, families, and community groups of the essential role they play in ensuring students attend school and access available services, in expanding and enhancing venues for significant learning, in promoting youth development, and in supporting positive school change.

**6.7** A network of trained professionals, special programs, and community resources available to assist those who have extraordinary needs and require additional services to cope with the changes of early adolescence and/or the academic demands of middle-level education. Schools need to collaborate and cooperate with other human service agencies in the community.

**6.8** An adult mentor in addition to a guidance counselor, either formally through a teacher/student, advisor/advisee program or informally through a school culture of caring in which teachers or other adults assume responsibility for individual students.

## *Essential Element 7: Professional Learning*

Professional learning and staff development for all staff that are ongoing, planned, purposeful, and collaboratively developed.

> *Every young adolescent deserves an educational setting that values continuous improvement and ongoing professional learning.*

Teachers, administrators, and other school staff in a standards-focused middle-level school or program need regular, planned opportunities for professional and intellectual growth. Schools with middle-level grades need to be professional learning communities.

Teachers, administrators, and staff need to:

**7.1** Know the needs and characteristics of students in the middle grades and the instructional strategies and techniques that work best for these students.

**7.2** Understand the philosophy and mission of the standards-driven middle-level school.

**7.3** Understand and implement the Regents Policy Statement on Middle-Level Education and the Essential Elements of Standards-Focused Middle-Level Schools and Programs.

**7.4** Have high expectations for all students.

**7.5** Be familiar with each of the State's 28 learning standards and incorporate in their own classrooms and work spaces educational experiences that help all students achieve all the standards - including those that are outside their own area of content expertise.

**7.6** Know and understand their subject matter and course curriculum thoroughly.

**7.7** Know and understand the State's assessment system.

**7.8** Know and understand how to use data to make curricular and instructional decisions to improve students' academic performance and/or enhance personal development.

**7.9** Collaborate and cooperate in planning and providing professional learning opportunities.

**7.10** Routinely and systematically monitor and evaluate student learning to assess and improve instructional effectiveness.

## *Conclusion*

The middle grades play a critical role in the educational continuum. Schools with middle-level grades that are standards-focused attend to the twin purposes of academic preparation and individual self-development for all young adolescents. They do this by:

- Accepting collective responsibility for ensuring that all students are successful and learning at high levels.
- Creating small communities for learning and providing comprehensive guidance and support services.
- Providing an academically excellent and developmentally responsive educational experience for every student.
- Establishing and maintaining a climate for learning that is respectful, purposeful, physically and psychologically safe, and personalized to ensure close, sustained relationships between students and teachers.
- Providing a comprehensive educational program that is standards-based - reflecting the State's 28 learning standards - challenging, integrative, and exploratory.
- Using flexible organizational structures and creative use of time.
- Using a variety of research-based, instructional strategies that are cognitively and developmentally appropriate and that respect individual experiences, learning styles, and learning needs.
- Employing knowledgeable and qualified personnel who are committed to the education of young adolescents.
- Creating within the school a vibrant professional learning community.
- Fostering each student's personal development, health, wellness, and safety.
- Engaging families in the education of young adolescents.
- Connecting schools with the larger community.

A high-performing, standards-focused middle-level school or program that successfully addresses both the intellectual and personal needs of young adolescents is profoundly different from many middle-level schools today. To create schools that are true standards-focused, middle-level schools will necessitate systemic change that will not be easy to accomplish. It will require leadership, persistence, additional resources, time, and a strong will to succeed. The task is challenging and daunting. However, it is necessary, and it can be done.

# Essential Elements

## 1. Welcome & Introduction

Dear Middle-Level Principal:

I am a middle school principal and doctoral candidate at Syracuse University. For my dissertation, I am exploring the relationship between middle-level practices and student achievement in our state. I am writing to ask for your assistance in this study. Little research has been done, either in New York State or elsewhere, that documents the extent of implementation of middle school program characteristics or that associates the implementation of these characteristics with student achievement. I am conducting a survey of middle-level building administrators across the state to address these questions; this study is the most comprehensive survey of middle-level practices in New York State. Both the New York State Middle School Association and the New York Network of Middle-Level Liaisons have expressed great interest in the findings.

Participation in this survey is completely voluntary. You may participate or not, without any penalty.

The results of the research will form the basis of my dissertation and will be summarized in an article in the New York State Middle School Association's journal In Transition. Articles from In Transition are also posted at NYSMSA.org. I hope that the findings from this study will help us to make better decisions about our schools and programs.

Should you have any questions regarding this survey process, please feel free to contact me at 315.469.0885 or jcraig@jd.cnyric.org; my thesis advisor, Dr. Joseph Shedd, at 315-443-1468 or mailto:jbshedd@syr.edu, or Syracuse University's Institutional Review Board, at 315-443-3013 or 121 Bowne Hall, Syracuse University, Syracuse NY 13244.

Thank you for your participation in the research; you are making a contribution to middle-level education across the state through your assistance. Your completion of the survey will indicate your willingness to participate.

Sincerely,
Jeff Craig

# Essential Elements

## 2. Philosophy and Mission

Please answer these questions about your school's philosophy and mission.

### 1. Does your middle level school's or program's mission statement explicitly reference BOTH the academic and personal needs of children?

- ◯ Yes
- ◯ No
- ◯ We don't have a mission statement

### 2. How much is each of these characteristics a focus for your school as a whole?

| | Exclusive focus | Primary focus | Lesser focus | Not a focus |
|---|---|---|---|---|
| Physical | ◯ | ◯ | ◯ | ◯ |
| Emotional | ◯ | ◯ | ◯ | ◯ |
| Social | ◯ | ◯ | ◯ | ◯ |
| Ethical | ◯ | ◯ | ◯ | ◯ |
| Academics | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# Essential Elements

## 3. To what extent would your staff commit to each statement as a responsibility of your school?

| | All or almost all staff committed. | More than half of the staff committed. | Approximately half of the staff committed. | Less than half the staff committed. | No/few staff committed. |
|---|---|---|---|---|---|
| Accepting - individually and collectively - responsibility for the educational and personal development of each and every student. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Connecting each young adolescent in positive ways with the school and with caring adults within the school. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Developing the whole child, intellectually and academically, personally and socially, physically, emotionally, and ethically. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Ensuring for each student a safe, inviting, trusting, and mutually-respectful learning environment that offers both physical and psychological safety. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Establishing partnerships with the home and the community. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Providing a successful transition from the elementary grades to the middle grades to the high school grades and from childhood to adolescence. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Providing each student with a variety of learning experiences that are academically challenging, developmentally appropriate, and personally relevant in order for each of them to make informed educational and personal decisions. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Working together to ensure that all students achieve at high levels and, with appropriate guidance and structure, develop independence and responsibility. | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

**4. To which needs/resource category does your school belong?**

- ◯ Other Large Cities (Buffalo, Rochester, Syracuse, Yonkers)
- ◯ High Need / Resource Capacity - Other Urban and Suburban
- ◯ High Need / Resource Capacity - Rural
- ◯ Average Need / Resource Capacity
- ◯ Low Need / Resource Capacity

**5. What percentage of your students scored either a level 3 or level 4 on the eighth grade 2008 Intermediate ELA assessment?**

**6. What percentage of your students scored either a level 3 or level 4 on the eighth grade 2008 Intermediate mathematics assessment?**

# Essential Elements

## 3. Educational Program

Please tell us about your educational program.

### 1. Describe the extent of implementation that a visitor would observe on any given day for each of these qualities:

| | Observable all/almost all the time throughout the school. | Regularly observable in more that half the school. | Regularly observable in approximately half the school. | Regularly observable in less than half of the school. | No or very little observable implementation. |
|---|---|---|---|---|---|
| A common set of learning skills (e.g., how to study, how to conduct research, how to read for understanding, how to take notes, etc.) is in place across all grades and subject areas and taught and reinforced in each grade and subject area. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The overall program emphasizes not only intellectual development but also personal, social, physical, and ethical development. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program emphasizes interdisciplinary connections, and promotes shared responsibility for the standards among all content areas. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program emphasizes reading, writing, and mathematics (literacy and numeracy) across the subject areas with expectations for performance that are consistent across and within the disciplines and commonly understood by teachers, students, and parents. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program encourages students to pursue personal interests, engage in school and community activities (e.g., sports, clubs, etc.), explore potential futures and careers, develop useful social, interpersonal, and | ◯ | ◯ | ◯ | ◯ | ◯ |

## Essential Elements

| | | | | | |
|---|---|---|---|---|---|
| life skills needed to live a full and productive life, and nurture a “love of learning.” | | | | | |
| The program engages and involves the family, local community, and the world outside school in the education and personal development of young adolescents. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program explicitly embraces and encompasses all of the State's 28 learning standards. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program has explicit, published performance expectations that are common across all grades and subject areas (e.g., students must write in complete sentences). | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program includes diagnostic assessments (similar in design to the State's assessments) that regularly and routinely monitor the learning of each student relative to the State's standards and community expectations. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program is articulated with the elementary feeder schools and with the secondary receiving schools, building on the foundational knowledge and skills of the elementary grades and, in doing so, preparing students for success in high school. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program is explicitly articulated vertically and horizontally, within and across the various curricular areas, learning standards, and grade levels. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program is thoroughly challenging, rigorous, and purposeful. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The program offers opportunities for the development of personal responsibility and self | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

| | | | | | |
|---|---|---|---|---|---|
| direction. | | | | | |
| The program provides targeted and timely academic intervention services that are based upon a careful assessment of the academic, social, and emotional needs of students at risk of not meeting the State's learning standards. | ◯ | ◯ | ◯ | ◯ | ◯ |
| There are up-to-date written curricula (that are based on and aligned with the State's learning standards), instructional support, and learning aids for all subject areas. | ◯ | ◯ | ◯ | ◯ | ◯ |

## 2. Which statement best describes the use of the NYS Learning Standards by the predominance of teachers in your school? (choose one)

◯ All planning begins with the standards, with assessments and activities following directly from the standards.

◯ Teachers make adjustments to their lesson in order to align them to the standards.

◯ Teachers continue to use pre-existing lessons and units and reference the standards (identifying which standards are hit).

◯ The standards prompted little changes in lesson and unit planning.

◯ The standards had no impact on our school.

Other (please specify)

# Essential Elements

## 4. Organization and Structure

Please answer these questions that describe the organization and structure of your school.

### 1. What is your enrollment?

### 2. Is your school divided into smaller schools or houses or academies (note: this does not refer to interdisciplinary teams -- it is a practice bigger schools sometimes use to divide into schools-within-schools. Questions about interdisciplinary teams will follow later)?

- ◯ Yes
- ◯ No

### 3. Which grades are included in your school? (check all that apply)

- ☐ pre-K
- ☐ Kindergarten
- ☐ 1st grade
- ☐ 2nd grade
- ☐ 3rd grade
- ☐ 4th grade
- ☐ 5th grade
- ☐ 6th grade
- ☐ 7th grade
- ☐ 8th grade
- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ 12th grade

### 4. Which statement(s)describes the organization of the grade levels in your school?

- ☐ All grade levels are organized into departments.
- ☐ Some teachers remain with students for more than one year (looping).
- ☐ The older grades are more departmental in their organization while the younger grades are organized more like the elementary school.

Other (please specify)

# Essential Elements

## 5. Which of the following schedule formats best describes your daily schedule?

- ◯ Blocks of time given to teams so that teacher teams flexibly schedule instructional time (flexible block schedule).
- ◯ Longer blocks with most classes not meeting every day (block schedule).
- ◯ A fixed number of periods with most meeting every day (traditional schedule).
- ◯ Other (please specify)

## 6. Please rate the extent of student participation in the following programs in your school:

| | Almost all students participate | More than half of all students participate | Approximately half of the students participate | Less that half of the students participate | Few students participate | The program is not offered at our school |
|---|---|---|---|---|---|---|
| Informal after school extra help with teachers. | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Formal after school programs that support students, such as a 21st Century Learning Center. | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Extracurricular sports for 7th and/or 8th graders. | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Clubs | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Intramurals | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| Coordinated service learning opportunities. | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |

Describe other after school opportunities here.

# Essential Elements

## 7. Please check all items that describe the connectivity of technology in your school.

- [ ] Every classroom in our school has hard-wired Internet access.
- [ ] Our school has wireless internet access throughout.
- [ ] Our school has no access to the Internet.
- [ ] Internet access is available only in the computer lab.
- [ ] Some classrooms have Internet access.
- [ ] Internet access is limited to particular classrooms.

Other (please specify)

## 8. Please check all statements that describe access to computers in your school.

- [ ] We have a lap-top cart(s) that travel to classrooms.
- [ ] We have a computer lab(s).
- [ ] Each room has at least one computer in it.
- [ ] Our teachers have all been issued a lap-top for their use.
- [ ] Students participate in a technology-rich, engineering-like experience such as Project Lead the Way.
- [ ] We primarily use a Mac platform.
- [ ] We primarily use a PC platform.
- [ ] We use both the Mac and PC platforms.

How else is technology intergated in your school?

# Essential Elements

### 9. How often do students use technology in their learning?

- ◯ More than once per day.
- ◯ Approximately once per day.
- ◯ Several times per week.
- ◯ Approximately once per week.
- ◯ Less than once per week.
- ◯ Seldom.
- ◯ Never.

Other (please specify)

### 10. Does your school have interdisciplinary teams?

- ◯ Yes.
- ◯ No (skip the remaining questions in this section).

### 11. Which grade levels in your school are organized in interdisciplinary teams (check all that apply)?

☐ 4th Grade ☐ 5th Grade ☐ 6th Grade ☐ 7th Grade ☐ 8th Grade ☐ 9th Grade ☐ Cross or Multi Grade

### 12. How many teachers comprise the typical interdisciplinary team in each grade level?

| | 2 | 3 | 4 | 5 | 6 | 7 or more |
|---|---|---|---|---|---|---|
| 4th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| 5th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| 6th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| 7th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| 8th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |
| 9th Grade | ◯ | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

## 13. Which content areas are included on your typical interdisciplinary teams? (please check all that apply)

- [ ] Home and Career Skills/Family and Consumer Science
- [ ] Special Education
- [ ] Social Studies
- [ ] Art
- [ ] Physical Education
- [ ] LOTE/World Languages
- [ ] Mathematics
- [ ] Guidance/school counselor
- [ ] Technology Education
- [ ] Health
- [ ] Reading
- [ ] Music
- [ ] Science
- [ ] English Language Arts

Other (please specify)

## 14. In a typical week, how often do your interdisciplinary teams meet?

- ◯ Five times.
- ◯ Four times.
- ◯ Three times.
- ◯ Twice.
- ◯ Once.
- ◯ Teams do not regularly meet.

Other (please specify)

# Essential Elements

**15. Please rate the extent to which the regular work of the interdisciplinary teams agrees with these statements:**

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Interdisciplinary teams use an agenda for their meetings. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams focus on curriculum and instruction. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams employ common strategies and expectations. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams plan special events for their students. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams focus on the behavior of their students. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams focus on the social and emotional needs of their students. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams coordinate curricula. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams coordinate assignments and assessments. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Interdisciplinary teams have common planning time. | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

## 5. Classroom Instruction

Please answer these items that help to describe the instructional practices of your school.

### 1. To what extent does each of these statements describe your teaching staff?

| | All or almost all staff. | More than half of the staff. | Approximately half of the staff. | Less than half the staff. | None or very few of the staff. |
|---|---|---|---|---|---|
| Are consistently caring and respectful in their interactions with students and with other adults. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Have a deep understanding of their subject matter, of different approaches to student learning, and of diverse teaching techniques. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Know and understand each of the State's 28 learning standards and - when and where appropriate - reinforce them routinely during regular classroom instruction. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Provide instruction that is consistently standards-based, challenging, rigorous, and purposeful. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Thoroughly know and understand the needs and developmental characteristics of young adolescents. | ☐ | ☐ | ☐ | ☐ | ☐ |

# Essential Elements

**2. Please rate the extent to which you would observe each of these instructional strategies on a typical day in your school:**

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Lecture. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Whole-class instruction. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Guided reading groups. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Center-based instruction in ELA. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Center-based instruction in mathematics. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Inquiry-based lab experiences. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Follow-the-directions lab experiences. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Cooperative groups. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Student-to-student discussion. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Literature circles/reading clubs. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Tiered assignments. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Differentiated assignments. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Student choices. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Purposeful reading. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Peer tutoring. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Reading and/or writing workshops. | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

### 3. Please rate the extent to which you would observe each of these approaches on typical assessments used in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Demonstration. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Document-based questions. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Essay and written response. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Multiple choice. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Multiple opportunities. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Paper/pencil based tests. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Peer assessment. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Portfolio-based assessment. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Practicing format of state assessment. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Presentation. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Project-based. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Self-assessment. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Student choice of product. | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

### 4. Please rate the frequency of assessment purposes in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Formative. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Summative. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Diagnostic. | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# Essential Elements

## 5. Which of the following most closely describes the grading process used in core classes in your school (please check one)?

- ◯ The grading practice/system is determined by each individual teacher.
- ◯ Interdisciplinary teams employ a common grading practice/system.
- ◯ Departments employ a common grading practice/system.
- ◯ Grade levels employ a common grading practice/system.
- ◯ A combination of the above practices.

Other (please specify)

## 6. Please rate the use, by your teachers, of each communication strategy with parents/families:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Written, occasional progress reports. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Printed, school-wide progress reports. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Written, regular progress reports. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Printed, school-wide report cards. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Phone calls home (not for disciplinary reasons). | ◯ | ◯ | ◯ | ◯ | ◯ |
| Parent-team conferences. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Web-based system with home access. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Parent-teacher conferences. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Student-led conferences. | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# Essential Elements

## 7. Please check the extent to which each grouping practice is utilized in your school:

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Ability grouping. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Advanced, accelerated, or honors groups in ELA. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Advanced, accelerated, or honors groups in mathematics. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Advanced, accelerated, or honors groups in science. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Advanced, accelerated, or honors groups in social studies. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Heterogeneous grouping. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Multi-age grouping. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Remedial (not supplemental) classes in ELA. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Remedial (not supplemental) classes in mathematics. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Remedial (not supplemental) classes in science. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Remedial (not supplemental) classes in social studies. | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# Essential Elements

**8. Please rate the extent to which teachers participate in different aspects of their own professional learning:**

| | All or almost all staff. | More than half of the staff. | Approximately half of the staff. | Less than half the staff. | None or very little of the staff. |
|---|---|---|---|---|---|
| Visits to other classrooms within the school. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teacher-led in-service. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Visits to other schools. | ◯ | ◯ | ◯ | ◯ | ◯ |
| State-wide Conferences put on by professional groups (such as STANYS, NYSMSA, NYASCD, NYSSMA, etc.) | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teacher-led study groups. | ◯ | ◯ | ◯ | ◯ | ◯ |
| BOCES provided workshops. | ◯ | ◯ | ◯ | ◯ | ◯ |
| National/international conferences put on by professional groups (such as ASCD, NMSA, NSDC, IRA, etc.) | ◯ | ◯ | ◯ | ◯ | ◯ |
| Local, one-day workshops from commercial enterprises such as BER, Crystal Springs, etc. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Collaborative planning. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Superintendent's Conference Day programs. | ◯ | ◯ | ◯ | ◯ | ◯ |

Other (please specify)

# Essential Elements

## 6. Educational Leadership

Please answer these questions that describe the educational leadership in your school.

**1. What is your gender?**

- ◯ Female
- ◯ Male

**2. How many years have you been a middle school principal?**

**3. For how many years have you been the principal of this school, including this year?**

**4. For how many years were you an assistant principal in a middle school? (a "0" means you were never an assistant principal in a middle school)**

**5. How many years of experience do you have as a teacher or counselor at the middle level?**

**6. How many total years of experience do you have as a teacher or counselor?**

**7. Which educational levels have you attained (check all that apply)?**

- ☐ Masters Degree
- ☐ Certificate of Advanced Study
- ☐ Doctorate

Other (please specify)

# Essential Elements

**8. Please identify the primary source(s) of your knowledge in each area (check all that apply):**

| | Included in certificate program | From conference or workshop | Acquired through experience | Learned through reading | Learning still in progress |
|---|---|---|---|---|---|
| Articulation and maintenance of high standards for classroom instruction and student performance. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Creating, promoting, and sustaining a school culture of mutual support and collective responsibility for the educational and personal development of each and every young adolescent. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Expressing high expectations for students and staff. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Having an understanding of the subject matter in the middle grades and its interconnections, of different approaches to student learning, and of diverse teaching strategies. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Informing and involving parents of middle-level students in their children's education by helping them understand the needs and developmental characteristics of young adolescents, the learning standards their children must meet, the instructional program, their children's progress, and how to help their children at home with schoolwork, school decisions, and successful development through adolescence. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Involving staff and others in the operation of the school or program, empowering and encouraging them to contribute and to make decisions that benefit students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Knowledge and | ☐ | ☐ | ☐ | ☐ | ☐ |

## Essential Elements

| | | | | | |
|---|---|---|---|---|---|
| understanding of a range of successful, research-based teaching techniques that are developmentally and cognitively appropriate, matching instruction to the students' varied learning styles and different intelligences. | | | | | |
| Knowledge and understanding of each of the 28 learning standards and how they interrelate. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Knowledge and understanding of the essential elements of a standards-focused, high performing middle-level school or middle-level program. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Knowledge and understanding of the State's assessment system. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Knowledge and understanding of the unique needs and developmental characteristics of young adolescents. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Promoting and facilitating inter-school cooperation, collaboration, and communication with feeder elementary schools and receiving high schools. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Promoting school/community partnerships and involve members of the community in school activities and initiatives, empowering and encouraging them to contribute and make decisions that benefit students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Providing students with opportunities to assume significant and meaningful leadership roles in the school. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Supporting and encouraging teachers, individually and | ☐ | ☐ | ☐ | ☐ | ☐ |

# Essential Elements

collectively, to take risks, to explore, to question, to try new instructional approaches, to continue as learners, and to grow.

## 9. Which statements describe the student leadership in your school? (check all that apply)

- [ ] We have no active student government in our school.
- [ ] Students are officially included in the shared decision making process.
- [ ] Students are involved in the shared decision making process as needed.
- [ ] Students are usually not involved in the shared decision making process.
- [ ] We have an elected student government.
- [ ] The adults select which students participate in student government.
- [ ] The students involved in student leadership in our school reflect the diversity of the school population.
- [ ] Student leaders primarily come from a select group of the population.
- [ ] Student leaders receive leadership training.
- [ ] Student leaders receive no formal leadership training.

Describe other student leadership activities here.

# Essential Elements

## 10. To what extent do teachers participate in these activities?

| | All or almost all teachers participate. | More than half of the teachers participate. | Approximately half of the teachers particpate. | Less than half of the teachers particpate. | No or very few teachers participate. |
|---|---|---|---|---|---|
| Teachers participate in the shared decision making process. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teachers serve on building committees. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teachers serve on district committees. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teachers have departmental leadership responsibilities. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teachers have team leadership responsibilities. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Teachers are enrolled in administration preparatory programs. | ◯ | ◯ | ◯ | ◯ | ◯ |

Describe other teacher leadership activities here.

# Essential Elements

## 7. Academic and Personal Supports

Please answer these questions about the network of supports in your school.

### 1. In which arenas do students have opportunities to examine, explore, discuss, and understand the changes associated with early adolescence? (Please check any/all that apply)

- [ ] Individually with school counselor.
- [ ] In groups with school counselor.
- [ ] In classes with school counselor.
- [ ] In classes such as health.
- [ ] In an advisory program.
- [ ] In a homeroom.

Other (please specify)

### 2. In which arenas do students receive career counseling and guidance services to assist students and their families in making life, career, and educational choices? (Please check any/all that apply)

- [ ] Individually with school counselor.
- [ ] In groups with school counselor.
- [ ] In classes with school counselor.
- [ ] In classes such as Home and Career Skills/Family and Consumer Science.
- [ ] Special programs.
- [ ] In an advisory program.
- [ ] In regular classrooms.

Other (please specify)

# Essential Elements

## 3. Which of these statements characterizes the positive youth development program in your school (please check all that apply)?

- [ ] We use the 40 Developmental Assets as a framework.
- [ ] We have specific characteristics we deliberately promote.
- [ ] We do not have an organized program for character education or positive youth development.
- [ ] We coordinate our positive youth development efforts with other community-based groups.

Other character education initiatives in your school

## 4. With which human service agencies do you deliberately and regularly coordinate with (check all that apply)?

- [ ] Social Services.
- [ ] Mental Health.
- [ ] Family Court.
- [ ] Law enforcement agency (SRO, DARE, etc.)
- [ ] County agencies.

Other human service agencies with whom you collaborate

## 5. Does your school have an advisor-advisee program?

- ◯ Yes.
- ◯ No (go on to section 7).
- ◯ For some grades in our school.

# Essential Elements

**6. If you have an advisor-advisee program in your school, who serves as an advisor? (please check all that apply)**

- [ ] Clerical Staff.
- [ ] Teachers.
- [ ] Teaching assistants.
- [ ] Teacher aides.
- [ ] Administrators.
- [ ] Nonprofessional staff such as food service workers or custodians.
- [ ] Parents.
- [ ] School counselors.

Other (please specify)

**7. If you have an advisor-advisee program, to what extent do the teachers at your school participate in the advisor-advisee program?**

- ◯ All participate; participation is required.
- ◯ All participate; participation is voluntary.
- ◯ Most participate.
- ◯ Some participate.
- ◯ Few participate.

Other (please specify)

**8. If you have an advisor-advisee program, how frequently do the groups meet?**

- ◯ Daily.
- ◯ Fours days per week.
- ◯ Three days per week.
- ◯ Two days per week.
- ◯ Once per week.

Other (please specify)

# Essential Elements

**9. If you have an advisor-advisee program, for how long do the sessions meet?**

- ◯ 01-10 minutes
- ◯ 11-20 minutes
- ◯ 21-30 minutes
- ◯ 31-40 minutes
- ◯ 41-50 minutes
- ◯ 51-60 minutes
- ◯ longer than 60 minutes

Other (please specify)

# Essential Elements

## 8. Professional Learning

Please answer these questions about the professional learning in your school.

### 1. Describe the extent to which these statements describe the educators in your school.

| | All or almost all staff. | More than half of the staff. | Approximately half of the staff. | Less than half the staff. | None or very little of the staff. |
|---|---|---|---|---|---|
| Educators in my school know the needs and characteristics of students in the middle grades and the instructional strategies and techniques that work best for these students. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school understand the philosophy and mission of the standards-driven middle-level school. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school understand and implement the Regents Policy Statement on Middle-Level Education and the Essential Elements of Standards-Focused Middle-Level Schools and Programs. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school have high expectations for all students. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school are familiar with each of the State's 28 learning standards and incorporate in their own classrooms and work spaces educational experiences that help all students achieve all the standards - including those that are outside their own area of content expertise. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school know and understand their subject matter and course curriculum thoroughly. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school know and understand the State's assessment system. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school | ◯ | ◯ | ◯ | ◯ | ◯ |

# Essential Elements

| | | | | | |
|---|---|---|---|---|---|
| know and understand how to use data to make curricular and instructional decisions to improve students' academic performance and/or enhance personal development. | | | | | |
| Educators in my school collaborate and cooperate in planning and providing professional learning opportunities. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Educators in my school routinely and systematically monitor and evaluate student learning to assess and improve instructional effectiveness. | ◯ | ◯ | ◯ | ◯ | ◯ |

## 2. Which of these (if any) resources have been used by you or your staff?

- ☐ Regents Policy Statement on Middle-Level Education.
- ☐ The Essential Elements.
- ☐ Essential Elements Web-Based Tutorial.
- ☐ Essential Elements Degrees of Implementation Scale.
- ☐ Rubrics for the Essential Elements.
- ☐ Essential Elements Pamphlets.
- ☐ Middle-Level Indicators of Achievement Checklists (for non-tested areas).
- ☐ Three-Models Information and Application.
- ☐ Essential Elements: Schools-to-Watch (EE: STW) Program.

Other (please specify)

# Essential Elements

**3. Please rate the extent to which each of these statements are the focus of your schools' professional learning opportunities:**

| | Almost always. | More than half the time. | Approximately half the time. | Less than half the time. | Never/almost never happens. |
|---|---|---|---|---|---|
| Content knowledge. | ◯ | ◯ | ◯ | ◯ | ◯ |
| The needs and characteristics of early adolescents. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Middle level structures and organization. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Pedagogy. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Assessment. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Visits to other classrooms. | ◯ | ◯ | ◯ | ◯ | ◯ |
| Team process. | ◯ | ◯ | ◯ | ◯ | ◯ |

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## Education

State University of New York College at Oswego
Certificate of Advanced Study, Educational Administration, 1997
Master of Science, Middle School Curriculum and Instruction, 1992
Bachelor of Science, Secondary Education, 1987

Syracuse University
Doctorate in Education, Summer, 2014

## Employment History

Onondaga-Cortland-Madison Board of Cooperative Educational Services
Assistant Superintendent for Instructional Support Services, 2008-present

Jamesville-DeWitt Middle School
Principal, 2003—2008

Greece Arcadia Middle School
Principal, 1999—2003

Livonia Central School District
Assistant Principal for Middle Grades, 1998-1999

Canandaigua Middle School
Eighth Grade Science Teacher, 1987—1998

## Certification

NYS School District Administrator
Permanent Teacher Certification, Earth Science and General Science 7-12

## Professional Activities

Chair, Staff/Curriculum Development Network (S/CDN), New York State

Secretary, Central New York NYS ASCD Affiliate

Managing Partner, Literacy Coalition of Onondaga County

Co-Chair, Measurement Action Team, Onondaga County

National Distinguished Principal, 2008
NYS Middle School Principal of the Year, 2008

Adjunct Professor, State University of New York College at Oswego
Department of Educational Administration

Designer and Instructor, Standards Focused Leadership & Professional Learning Communities and Leadership Essentials for the Essential Elements

Coauthor, Essential Elements of Standards-Focused Middle School and accompanying rubrics; author of Essential Elements pamphlet series

Special Assistant to the Superintendent, Canandaigua City School District
Team Leader, Canandaigua Middle School

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Professional Activities continued

Director of Research & Technology, New York State Middle School Association (including authorship of the regular *In Transition* feature article: "Research at a Glance")
Conference Chair, 2000, 2005, 2008 NYSMSA Conference (3300 attendees)
Webmaster, NYSMSA.org (website of New York State Middle School Association)

Author of "An Interdisciplinary Team Begins the Quality Transformation," published in the *ASCD Curriculum Handbook Newsletter,* Winter, *1997*; "Quality through site-based scheduling," published in the *Middle School Journal*, November, 1995; "Assessing the New Assessments: A Teacher's Perspective," "Who should be making scheduling decisions," and "The Emergence of a Standards-Focused, Middle Level Learning Community" published in the journal *In Transition*.
Team leader of Math, Science, and Technology Middle Level Pilot Assessment raters for New York State Education Department

Facilitator of District Transitions Committee, Scheduling Committee, Discipline Committee, Middle School Quality Support Group.

Participant in Finger Lakes Authentic Assessment Project with Giselle Martin-Kneip

Dean of Finger Lakes Middle Level Academy (presenter at many academies)

Authored 21st Century Schools application and Learning Technology Grant

Developer and presenter of "Curricula on the Wall" grant and program for middle level curriculum alignment and integration

Presenter of Applying Quality Principles to the Middle School, Block Scheduling and the Middle School, Site-based Scheduling, and Team-based scheduling to professional audiences and conferences across the state

School Improvement and Master schedule consultant to schools and districts across NY State

Building and District Level Committee participation, including:
- District Testing Committee
- Inclusive Education Advisory Council
- Canandaigua Quality Council (steering committee)
- Middle School Task Force
- Building and District School Improvement Planning Teams
- Curriculum Review Committees

Professional Affiliations

American Association of School Administrators
American Educational Research Association
National and New York State Middle School Association
National and State Association for Supervision and Curriculum Development
National Association of Elementary School Principals
National Association of Secondary School Principals
National Council of Teachers of Mathematics
National Staff Development Council
New York State Council of School Superintendents
School Administrators Association of New York State