The Status of Programs and Practices in America's Middle Schools:

Results From Two National Studies

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Produced in the United States of America.

AMLE Mission Statement
The Association for Middle Level Education (AMLE) is dedicated to improving the educational experiences of young adolescents by providing vision, knowledge, and resources to all who serve them in order to develop healthy, productive, and ethical citizens.

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Introduction

The initiative to reorganize American public education from a two-tier to a three-tier system is now more than 100 years old. The movement to establish separately organized middle level schools began with the first junior high schools, which were established in the early 1900s and continues today with the number of middle level schools now exceeding 15,000. Throughout the history of these two middle level school organizations, there have been numerous accomplishments to celebrate. However, lingering questions remain about the failure of many middle level schools to authentically implement programs and practices that have been advocated in the literature (Dickinson, 2001; George, 2009a, 2009b; Lounsbury, 2009; McEwin & Greene, 2010). Interest in the status of recommended programs and practices in middle level schools has resulted in a series of national linked surveys that began in 1968 (Alexander). These surveys are identified later in this report.

The two national surveys that are the subject of this report continue the legacy of the earlier studies by examining the current status of the implementation of recommended middle level programs and practices in the nation's public middle schools. Results from these studies, which were conducted in 2009, are presented in this report. Comparisons are made with data from earlier surveys so that trends can be identified and explored. Recommendations based on analysis of the data from the 2009 national studies are also provided in Section IV.

Middle Level Schools Emerge and Grow

The Junior High School Movement

It is widely accepted by middle level scholars that the first junior high schools were established in 1909 in Columbus, Ohio, and in 1910 in Berkley, California. This then-radical idea of establishing a new level of education for the schooling of young adolescents gained widespread acceptance, and the number of junior high schools reached more than 7,000 by the 1970s (Melton, 1984; Van Til, Vars, & Lounsbury, 1961). However, since the middle school movement began in the late 1960s, the number of junior high schools has continued to decrease each year with fewer than 400 remaining by 2008 (personal communication, K. Roberts, December 28, 2008).

Junior high schools were touted as designed specifically to serve the developmental and academic needs of young adolescents. As is well documented in the literature, however, there were many other factors in addition to serving this developmental age group that stimulated the wide acceptance and rapid growth of junior high schools (e.g., economy of time issues, high drop-out rates, commission reports) (Gruhn & Douglass, 1956; Koos, 1927; Lounsbury, 1992, in press). Although a major goal of junior high schools was to provide programs uniquely designed to meet the needs of young adolescents, a comprehensive specialized middle level knowledge base needed to fully sustain this goal was largely absent. As a result, most junior high schools patterned themselves after the senior high school model by adopting practices such as a strong emphasis on subject matter specialization, departmentalization, and extensive extra-curricular programs and activities.

The failure of most junior high schools to live up to the promises of authentic school reform eventually led to high levels of dissatisfaction among educators, policymakers, and other stakeholders. The dissatisfactions that evolved are well documented in the literature (George and Alexander, 2003; Hansen & Hearn, 1971; Kindred, 1968; Lounsbury, 1992). These shortcomings were also paralleled with some significant accomplishments. One of the most meaningful outcomes was the acceptance of, and

FIGURE 1

Number of Grades 5–8, 6–8, and 7–8
Public Middle Schools: 1970–2008
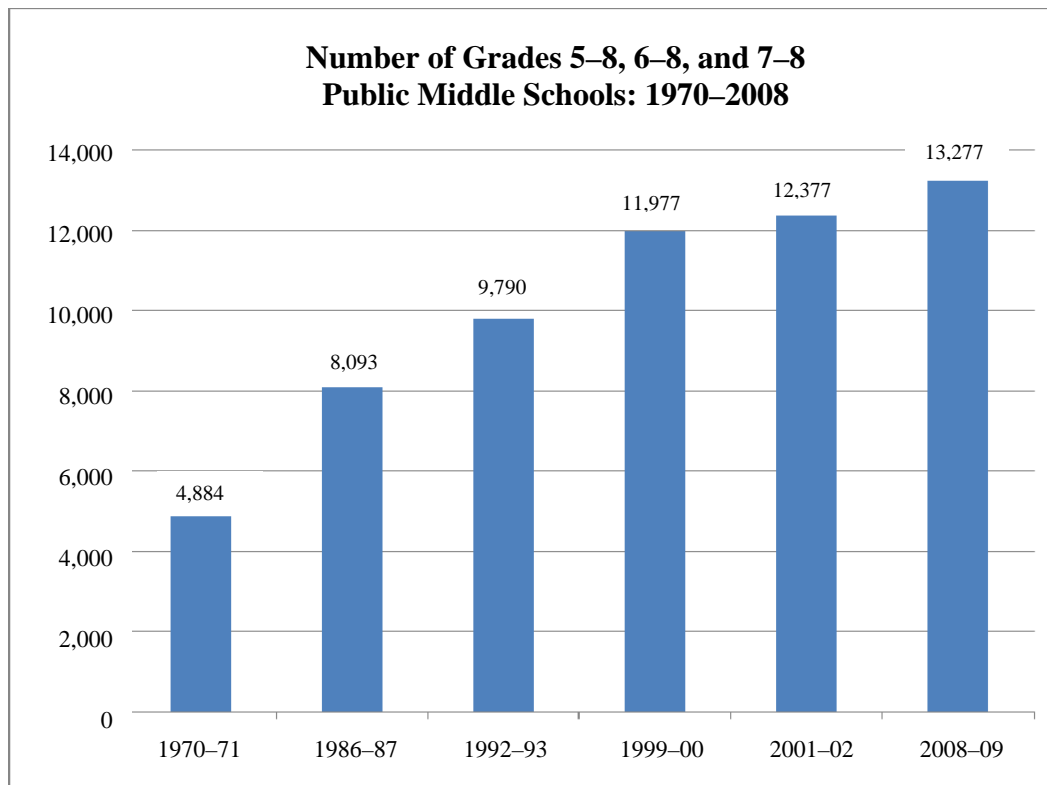
support for separately organized schools for young adolescents. Other positive results include the reduction of dropouts, the advancement of the concept of exploration, a stronger focus on student guidance, and an increased emphasis on the implications of the individual differences of young adolescents (Melton, 1984).

The Middle School Movement

Junior high schools have been largely replaced by middle schools that include a variety of grade organizations (Alexander, Williams, Compton, Hines, Prescott, & Kealy, 1969; Clark & Clark, 1994; George, 2009a; Lounsbury, 1992). Approximately ninety percent of these middle schools contain grades 5-8, 6-8, or 7-8, with grades 6-8 schools being the dominant organizational plan. There is no doubt about the continuing popularity of middle schools. In spite of the impression given in some media reports that predict the possible demise of the middle school (Carr, 2007; Mathews, 2010; Miranda & Rubiner, 2005), increasing numbers of separately organized middle level schools are established every year. Using the definition of

middle schools as those containing grades 5-8, 6-8, and 7-8, there were 4,884 such schools in 1971; 8,093 in 1987; 11,977 in 2000; and 13,227 in 2008 (Figure 1). These numbers do not include other less common middle school configurations such as grades 4-8, 6-7, or 7-9.

There were also 5,200 public elementary schools in 2008 that began with grade Pre-K, K, or 1 and ended in grade 8. This represents an increase of 283 schools since 2007. The number of grades 6-12 public schools increased from 1,009 in 2007 to 1,183 in 2008. There were also 440 single grade middle schools in 2008 (K. Roberts, personal communication, December 28, 2008). Clearly, the number of schools housing young adolescents in middle schools, elementary schools, and middle/senior high schools continues to increase. This trend is logical since K-12 student enrollment rose 12% between 1993 and 2006 and is projected to increase an additional 8% between 2006 and 2018 (Hussar & Bailey, 2009).

Despite the increasing numbers of middle schools, persistent questions remain about whether the majority of these schools have authentically implemented the developmentally responsive and effective programs and practices that have been so widely recommended (Dickinson, 2001; Lounsbury, 2009; National Middle School Association, 2010b). Part of this concern arises from the results of several major surveys of middle school programs and practices that have been conducted over the last four decades. One of the authors of this report has been involved in three of the last four national surveys that are part of a linked series of studies. These studies were conducted in 1968 (Alexander), in 1988 (Alexander & McEwin, 1989), and in 1993 and 2001 (McEwin, Dickinson and Jenkins, 1996, 2003). These surveys will be referred to as the 1968, 1988, and 2001 studies throughout this report. Other key surveys that are not linked to this series have also been conducted during this time period. These include, but are not limited to, surveys by Brooks and Edwards (1978), Cawelti (1988), Compton (1976), Epstein and Mac Iver (1990), George, (2008-2009), George and Shewey (1994), and Valentine, Clark, Hackmann, and Petzko (2002).

SECTION II

Results from the Survey of Randomly Selected Middle Schools

Design of the Study

This section presents selected results from a national random sample of 827 public middle schools. These schools will be referred to as the *random sample* throughout this report. The survey instrument used included some items that were part of one or more of four earlier studies (Alexander, 1968; Alexander & McEwin, 1989; McEwin, Dickinson, & Jenkins, 1996, 2003). Modifications were made on some questionnaire items and new items were added that addressed topics like technology and global education. A 20% random stratified sample (2,783) of public middle schools that included grades 5-8, 6-8, or 7-8 (13,918 schools) was selected. The return rate for the survey was 30%.

Grades 5-8, 6-8, and 7-8 schools were selected because these grade organizations represent the large majority (89%) of all separately organized public middle level schools in the nation. Principals of those schools were sent electronic surveys with requests to provide data about their schools. They were also asked to express their opinions on selected middle level topics. In this section, data from this study are reported and results are compared with similar data from one or more of the four earlier surveys to help identify trends that have occurred over time.

Grade Organization, Community Types, and Free and Reduced Lunch Rates

The grade organization patterns of the responding schools closely mirrored those of all middle schools in the country. Eleven percent of the middle schools were grades 5-8 schools, 67% were grades 6-8 schools, and the remaining 21% included grades 7-8. Forty-three percent of schools were located in rural communities, 18% in urban settings, and 39% in suburban areas. These percentages closely approximated results from the 2001 study when 41%

of schools were in rural communities, 21% in urban areas, and 38% in suburban areas.

Thirty-six percent of responding schools reported that 51% or more of their students qualified for the free or reduced lunch program. About one-fourth of schools had between 1 and 20 percent of students who qualified for this program. Ten percent of responding schools had 81% or more of the student body eligible for the free and reduced lunch program (Table 1). Information about this topic was not collected in earlier surveys.

School Enrollments

As was the case in the 1993 and 2001 surveys, the percentage of small middle schools, those with enrollments of 400 or fewer, remained at about one-fourth of all middle schools. The number of smaller middle schools was greater in the 1968 and 1988 studies. Although the percentage of larger middle schools, those with 800 or more students, increased rather significantly after the 1980s, the percentage of these schools has decreased slightly since that time. In all five studies, the largest percentage of middle schools had enrollments that ranged from 401 to 800. Approximately one-half of middle schools fell into this range in the 1988, 1993, 2001, and 2009 studies (Table 2).

Overall, there does not seem to be a trend toward larger middle schools. Both the 2001 and 2009 studies revealed that 49% of middle schools in the nation enrolled between 401 and 800 students. Data showed that 25% of schools had from 401 to 600 students and 24% had between 601 and 800 students. Only 9% of the 2009 random sample enrolled more than 1000 students. This represents a 5% increase when compared to results from the 2001 study (4%).

TABLE 1

**Number and Percent of Students Eligible for Free or Reduced Lunch:
2009 Randomly Selected Middle Schools**

Percent Free or Reduced Lunch	Number	Percent
None	2	<1
1-10	74	9
11-20	119	15
21-30	114	14
31-40	109	13
41-50	100	12
51-60	100	12
61-70	61	8
71-80	46	6
81-90	57	7
91-100	28	3
Total	810	99

TABLE 2

**Percent of Enrollments of Schools: 1968, 1988, 1993, 2001 and
2009 Randomly Selected Middle Schools**

Enrollment	1968	1988	1993	2001	2009
1-400	39	34	22	25	27
401-800	45	52	48	49	49
More than 800	16	14	30	26	23

TABLE 3

**Number and Percent of Schools with Students On or Above Grade Level
in Mathematics: 2009 Randomly Selected Middle Schools**

At or Above Level Scores	Number	Percent
1-10	4	>1
11-20	10	1
21-30	28	4
31-40	55	7
41-50	53	7
51-60	83	11
61-70	141	18
71-80	178	23
81-90	154	20
91-100	79	10
Total	785	101

TABLE 4

Number and Percent of Schools with Students On or Above Grade Level in Reading: 2009 Randomly Selected Middle Schools

At or Above Level Scores	Number	Percent
1-10	4	>1
11-20	9	1
21-30	18	2
31-40	34	4
41-50	45	6
51-60	78	10
61-70	101	13
71-80	191	24
81-90	201	25
91-100	111	14
Total	792	99

FIGURE 2

Percent of Middle Schools Using Interdisciplinary Team Organization: 1988, 1993, 2001, 2009
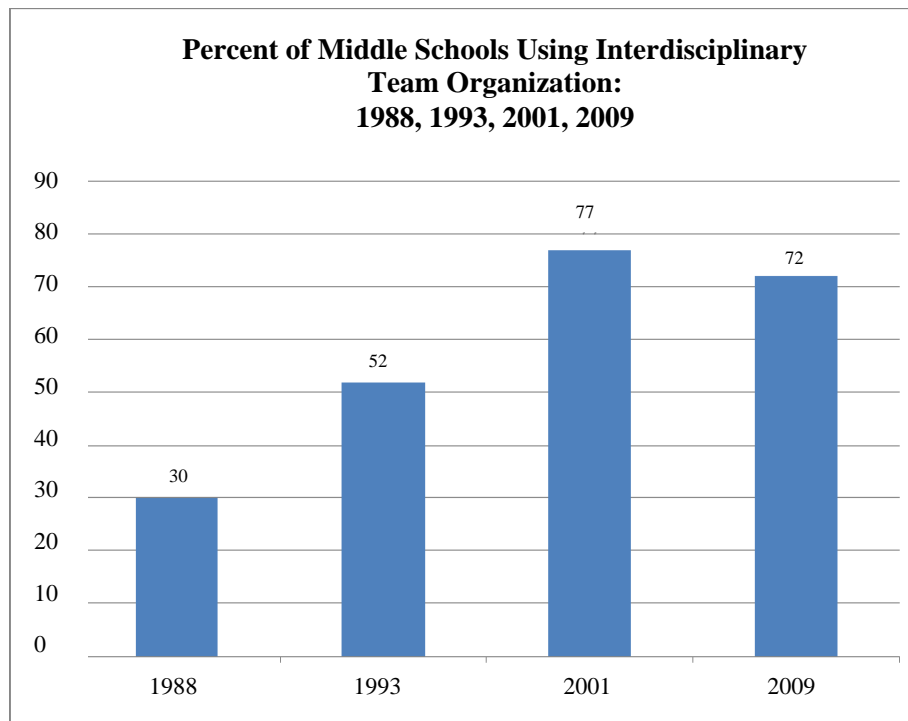
Standardized Tests Results

Respondents were asked to provide data about the percentages of students at their school who were on or above grade level in mathematics and reading. Eighty-two percent of schools had 51% or more of students scoring on or above grade level on standardized mathematics tests. Thirty percent reported that 81% or more of students scored at that level in mathematics (Table 3). Scores for standardized reading tests were higher with 86% of schools having 51% or more of students scoring on or above grade level. Thirty-nine percent of schools had 81% or more students scoring on or above grade level on standardized reading assessments (Table 4). Data regarding standardized test results were not collected in earlier surveys.

Interdisciplinary Team Organization and Common Planning Time

Results from earlier surveys have shown increases in the percentages of middle schools utilizing interdisciplinary team organization. Data from the 2009 random study, however, revealed a decrease in the number of schools using this organizational plan. The percentage of middle schools organized into interdisciplinary teams decreased from 77% in 2001 to 72% in 2009 (Figure 2). The survey instrument did not inquire about the reasons for using or not using the interdisciplinary team organization plan. However, in the open-ended comments section of the survey, some middle school principals lamented the loss of teaming in their schools due to difficult economic times. Whatever the reasons, this finding is especially disappointing considering that successful practice and the research base strongly support the effectiveness of interdisciplinary teaming (Arhar, 1990; Flowers, Mertens, & Mulhall, 2000; Lee & Smith, 1993; Mertens, Flowers, & Mulhall, 1998, 2000; NMSA, 2004a, 2010a).

Research and successful practice have also recognized the essential role of common planning time for middle level teachers serving on interdisciplinary teams (Mertens & Flowers, 2006; Mertens, Flowers, & Mulhall, 1998; Mertens, Flowers, Anfara & Caskey, 2010; NMSA, 2007a,

2010a, 2010b; Warren & Muth, 1995). The percentage of middle schools providing ten common planning periods per week for teachers teaching on teams in the 2009 study was 28% as compared to 41% in the 2001 study. This plan typically provides core teachers with one common planning period for team planning and one for individual planning each day. The percentage of schools in the current study providing five common planning periods increased from 40% in the 2001 study to 47% in the 2009 study. Seventy-seven percent of schools in the current study provided core teachers with five or more common planning periods per week (Figure 3).

Scheduling Plans

Flexible scheduling has been considered a key component for middle schools since the beginning of the middle school movement (Alexander & George, 1981; George & Alexander, 2003; George & Lounsbury, 2000; Howard & Stoumbis, 1970; NASSP, 2006; NMSA, 2007a, 2010b; Powell, 2011; Van Til, Vars, & Lounsbury, 1961). Respondents to the 2009 random survey were asked to select the schedule type that best represented schedules at their schools. Options offered were daily uniform periods, daily periods of varying lengths, flexible-block schedule, self-contained classrooms, and other schedule types.

Seventy-two percent of respondents reported that daily uniform periods were the most commonly used scheduling plan at their schools. This percentage is rather discouraging considering widespread recognition of the importance of flexible scheduling and grouping for middle level programs and schools. However, when compared to past studies, the percentage of schools utilizing daily uniform periods had decreased somewhat. Eighty-six percent of schools in the 1993 study and 75% of schools in the 2001 study used daily uniform period mode. The percentage of schools selecting flexible block schedules decreased from 33% in the 1993 study to 14% in the 2009 study (Table 5).
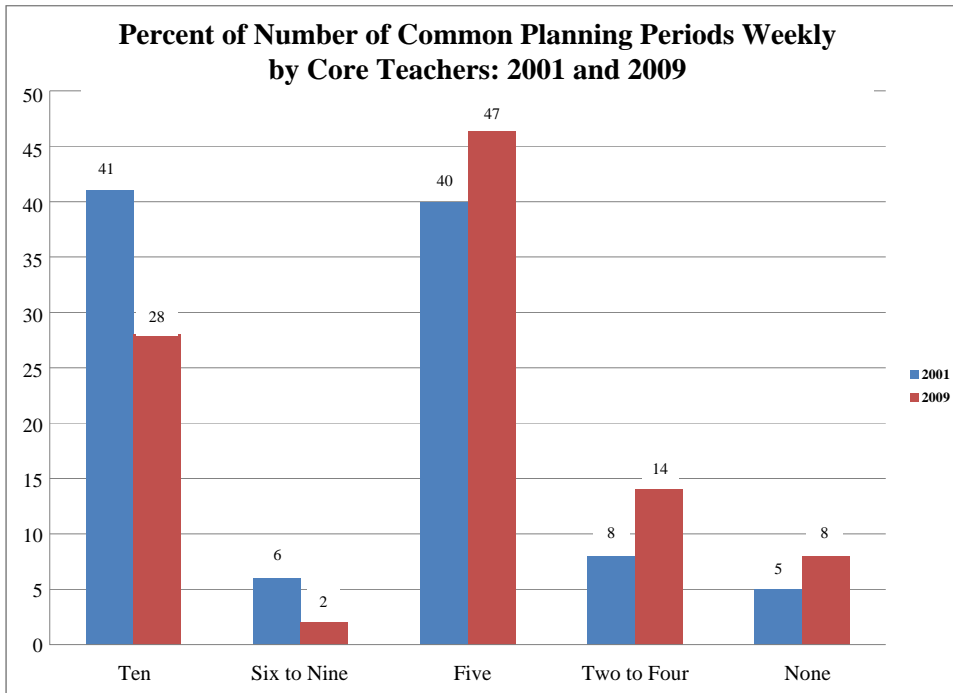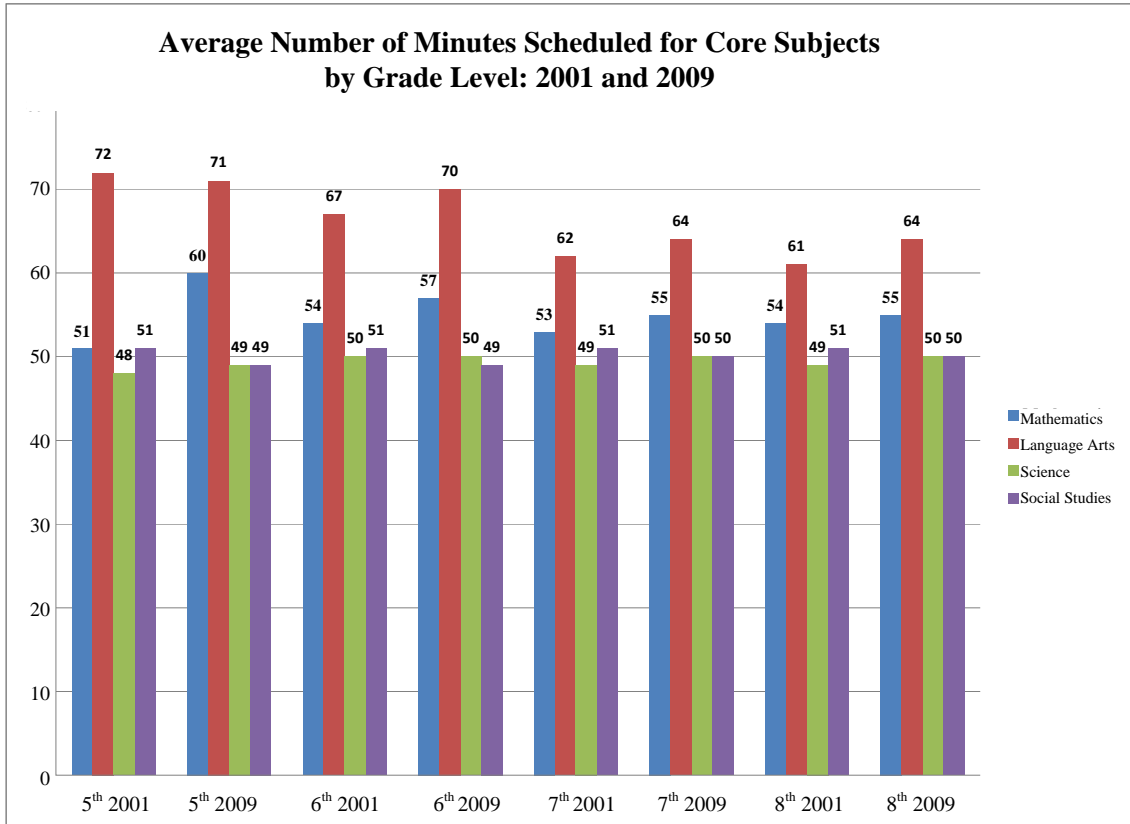
FIGURE 3

Percent of Number of Common Planning Periods Weekly by Core Teachers: 2001 and 2009

FIGURE 4

Average Number of Minutes Scheduled for Core Subjects by Grade Level: 2001 and 2009

Middle Level Curriculum

Curriculum is of the utmost importance in middle level programs and schools (Beane, 1990; Brazee & Capelluti, 1995; Lounsbury & Vars, 1978; NMSA, 2004b, 2005). As noted in the National Middle School Association's landmark publication *This We Believe* (2010b), middle level curriculum should be challenging, exploratory, integrative, and relevant and encompass every planned aspect of the educational program (p. 17). Although it is difficult to determine the nature and quality of curriculum in a survey, information on selected areas of the curriculum was collected.

Core Subjects

The core subjects of mathematics, language arts, science, and social studies are universally offered at middle schools. However, respondents were asked to indicate how many minutes of instruction per day the core subjects were scheduled at their schools. They were instructed to provide the average number of minutes per day regardless of the nature of the scheduling plans used at their respective schools (e.g., 90 minute blocks on alternating days). This component of the survey provided comparative data to that of earlier studies and determined which subjects, if any, were being allotted more instructional time and determined what portion of the instructional day was scheduled for core subjects.

Language arts received the largest allotment of time at all grade levels in both the 2001 and 2009 studies. In the 2009 random survey, an average of 71 minutes was scheduled for language arts in grades five and six and 64 minutes in grades seven and eight. Mathematics was scheduled for 55 to 60 minutes at the various grade levels. All other core subjects were allotted between 49 and 50 minutes daily. This pattern closely approximated results from the 2001 survey (Figure 4). The average number of minutes provided daily for all core subjects in the current study was 229 for fifth grade, 226 for sixth grade, and 219 for grades seven and eight. These results confirm that middle schools continue to place a high priority on core subjects and that significant portions of the instructional day are devoted to these subjects.

Required Non-Core Subjects

Data were collected regarding non-core courses that were required (Table 6). The non-core subjects most often required in grade six were physical education (96%), reading (81%), health (59%), art (44%), and computers (44%). All of these percentages were increases compared to results of the 2001 study with the exception of computers, which dropped from 52% in 2001 to 44% in the 2009 study. The most frequently required seventh grade non-core subjects were physical education (95%), reading (68%), health (66%), and computers (42%). All of these percentages represent increases with the exception of computers. The percent of schools requiring computers in seventh grade dropped from 48% in 2001 to 42% in 2009. The percentage of schools requiring art in seventh grade decreased from 47% in 2001 to 34% in 2009. Non-core subjects most frequently required in the seventh and eighth grade followed similar patterns.

The required non-core subjects most often offered at the eighth grade level were physical education (89%), health (60%), reading (59%), and computers (40%). All of these percentages represent increases from the 2001 study with the exception of computers, which remained at the same level. The largest increase was in career education, which changed from 21% in the 2001 study to 35% in the 2009 study (Figure 5).

Elective Subjects

The most frequently offered elective courses in grade six were band (97%), chorus (68%), art (48%), orchestra (36%), computers (35%), and general music (29%). All of these percentages represent increases from the 2001 study with the exception of art which was part of the sixth grade elective curriculum in 86% of schools in the 2001 study and 48% in the 2009 study. The frequency of schools offering art at the seventh and eighth grade levels did not follow this downward trend. The most frequently offered elective courses at the seventh grade level were band (99%), chorus (78%), art (61%), computers (41%), orchestra (39%), and foreign languages (38%). These percentages are increases over those found in the 2001 survey with the exception of orchestra. The percentage of schools

TABLE 5

Percent of Types of Scheduling Plans Utilized: 1993, 2001, and 2009
Randomly Selected Middle Schools

Schedule Type	1993	2001	2009
Daily Uniform Periods	86	75	72
Daily Periods-Varying Length	11	10	10
Flexible Block Schedule	33	23	14
Self-Contained Classrooms	9	9	<1
Other	4	4	3

Note: Data in columns for 1993 and 2001 do not total 100% because respondents were asked to check all schedule types that applied.

TABLE 6

Percent of Schools Requiring Selected Non-Core Subjects by Grade Level:
2001 and 2009 Randomly Selected Middle Schools

Courses	Percent							
	Fifth		Sixth		Seventh		Eighth	
	2001	2009	2001	2009	2001	2009	2001	2009
Art	75	65	39	44	47	34	41	28
Career Education	17	12	14	13	15	23	21	35
Computers	65	45	52	44	48	42	40	40
Creative Writing	27	46	12	21	12	23	12	21
Family and Consumer Science	12	12	26	21	29	27	25	21
Foreign Language	20	10	23	17	23	21	24	21
General Music	71	81	41	43	29	30	24	23
Health	54	68	58	59	62	66	58	60
Industrial Arts	19	8	25	17	32	21	27	21
Life Skills	15	19	17	13	15	14	14	11
Physical Education	94	99	91	96	88	95	83	89
Reading	81	98	68	81	53	68	46	59
Sex Education	17	25	24	27	25	36	27	35
Word Processing	30	46	20	34	16	28	14	25

FIGURE 5

**Percent of Most Frequently Required Non-Core Courses
in Grade Eight: 2001-2009**

FIGURE 6

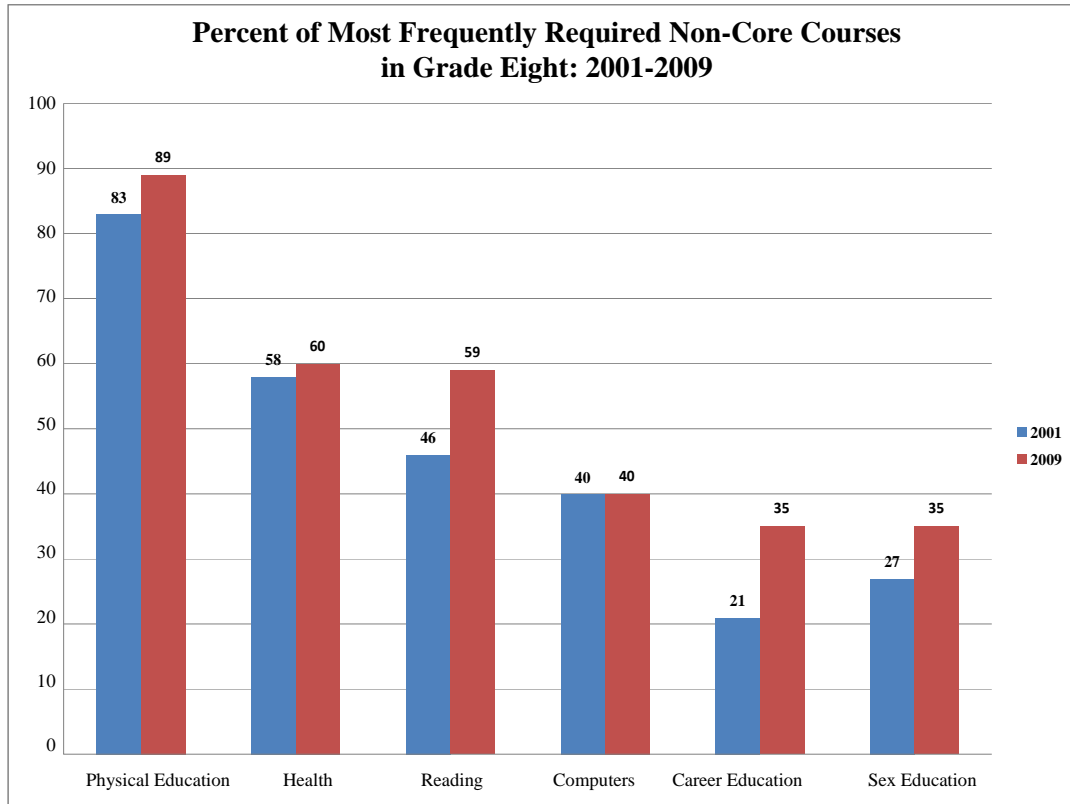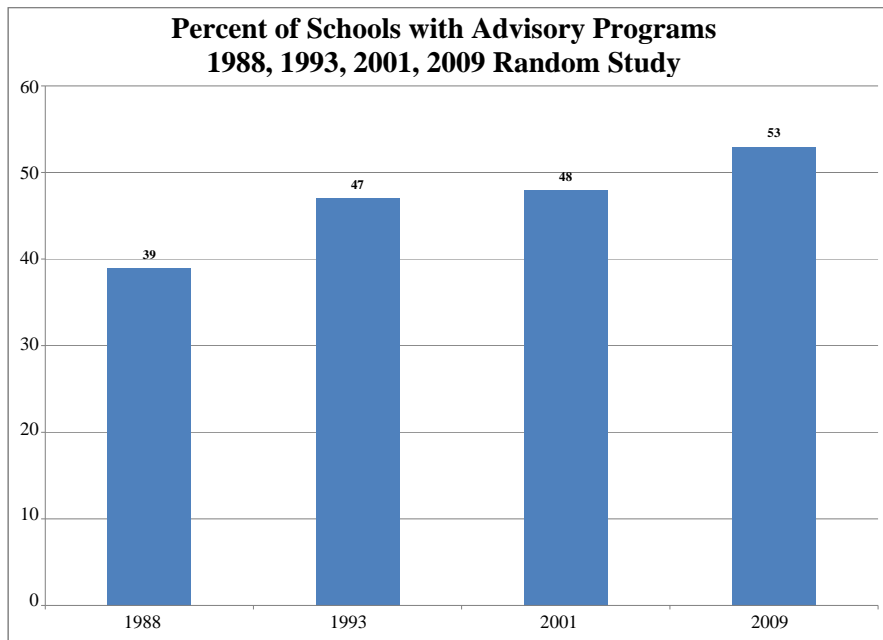**Percent of Schools with Advisory Programs
1988, 1993, 2001, 2009 Random Study**

offering orchestra in seventh grade dropped from 72% in 2001 to 39% in 2009 (Table 7).

Band (99%), chorus (80%), art (63%), foreign language (46%), computers (44%), and orchestra (39%) were the most frequently offered electives at the eighth grade level. These percentages represented increases from the 2001 study with the exception of orchestra which dropped from 72% of schools in 2001 to 39% in 2009.

Interest/Mini-course Programs

The survey asked respondents to indicate if they had interest/mini-course programs at their schools. Interest/mini-courses were defined as short term, student interest-centered courses sometimes called exploratory courses. Thirty-nine percent of schools reported having these programs. This percentage is an increase from the 1993 study (31%), but a decrease from the 2001 study (49%).

Global Education Curriculum

There is growing recognition of the importance of middle level students gaining a global perspective through middle level curriculum (Asia Society, 2008; Jackson, 2009). Respondents were asked to indicate the level of emphasis placed on global education in the curriculum at their schools based on a series of statements that encompassed core global education components. The two areas that were most often highly emphasized were those of mathematics (54%) and science (40%) (Table 8). When responses to the choices of highly emphasized and emphasized were combined, the core components with the highest levels of emphasis were: (a) mathematics, 92%; (b) critical thinking and problem solving, 89%, (c) communication, 89%; (d) science, 88%; (e) creativity and innovations, 77%; (f) social justice, humanity, civic literacy, 70%; (g) leadership, 69%; and (h) integration, 69%. The least amount of emphasis was placed on bilingual opportunities with 32% of schools indicating this component was emphasized or highly emphasized in the curriculum.

Respondents were also asked to indicate their levels of agreement with four global awareness statements. As shown in Table 9, the highest levels of agreement were for statements one and four. Eighty-seven

percent agreed or strongly agreed with the statement "Teachers at my school promote global awareness by helping students develop an understanding of other cultures and diversity" and "My school has rigorous academic standards that help students prepare to succeed in a global society." Seventy-seven percent also agreed or strongly agreed with the statement "Deliberate efforts are made at my school to promote global awareness and multiculturalism in the curriculum." Only 58% agreed or strongly agreed with statement three "Teachers at my school are sufficiently supported and trained in 21st Century and global content." This lower level of agreement seems to identify an important area for improvement at many middle schools, one that usually takes additional resources, professional development, and sustained efforts on the part of all stakeholders.

Middle School Sports

Only limited information regarding middle school sports programs was collected in the 2009 random survey since these data are already available from an earlier survey (McEwin & Swaim, 2007). McEwin and Swaim found that 96% of public middle schools in the nation had competitive sports programs. By comparison, 50% of middle schools had interscholastic sports programs in the 1968 study, 77% in the 1993 study, and 96% in the 2001 study. One survey item inquiring about the types of sports programs offered was included in the 2009 survey. Forty-five percent of schools in the 2009 study had only interscholastic sports, 9% had only intramural sports, and 46% provided both intramural and interscholastic sports.

Advisory Programs

The 2009 survey did not include specific items concerning the nature of the curriculum of advisory programs. However, several questions related to whether or not schools had these programs, and if so, how they were scheduled. Fifty-three percent of schools in the current study had advisory programs. This percentage represents an increase from previous studies (Figure 6). Thirty-nine percent of schools in the 1988 study, 47% of schools in the 1993 study, and 48% of schools in the 2001 study had advisory programs. Although this increase is encouraging, the percentage of schools with advisory programs that

TABLE 7

Percent of Schools with Electives in Selected Subjects by Grade Level:
2001 and 2009 Randomly Selected Middle Schools

Courses	Percent							
	Fifth		Sixth		Seventh		Eighth	
	2001	2009	2001	2009	2001	2009	2001	2009
Art	16	20	86	48	54	61	47	63
Band	62	68	82	97	85	99	85	99
Career Education	5	1	12	12	13	22	16	27
Chorus	34	50	58	68	70	78	72	80
Computers	9	17	27	35	35	41	41	44
Creative Writing	3	5	5	4	6	7	7	8
Family and Consumer Science	2	1	14	1	20	24	25	29
Foreign Language	6	5	19	21	35	38	46	46
General Music	15	19	22	29	18	28	17	29
Health	8	<1	11	12	13	13	13	13
Industrial Arts	3	<1	12	12	23	22	29	27
Journalism	3	<1	4	4	12	12	20	16
Life Skills	2	<1	10	10	14	12	15	12
Orchestra	12	14	26	36	72	39	72	39
Physical Education	6	1	9	4	12	5	17	11
Reading	8	6	13	13	15	14	16	15
Sex Education	4	<1	5	5	5	6	6	6
Speech	8	0	4	4	8	8	10	10
Word Processing	2	<1	10	16	12	18	14	18

scheduled daily meetings of advisory groups declined from 78% in the 1988 study, to 56% in the 2001 study, to 54% in the current study (Table 10). As shown in Table 11, little change regarding the number of minutes scheduled for advisory programs was found when data were compared to results from the 2001 study. Eighty-three percent of schools with advisory programs in the 2009 random study scheduled 16 minutes or more for advisory class meetings.

Middle Level Instruction

Topics included in the 2009 study related to middle level instruction included teaching strategies, instructional grouping practices, and remediation practices. Information about each of these areas follows.

Teaching Strategies

Respondents were asked to indicate the extent to which selected teaching strategies are used in their schools with the choices for each method being rarely or never, occasionally, or regularly. The

TABLE 8

**Percent of Levels of Emphasis Schools Placed on Global Education Curriculum:
2009 Randomly Selected Middle Schools**

Curriculum Emphasis on Global Education	Highly Emphasized	Emphasized	Somewhat Emphasized	Not Emphasized
Critical Thinking and Problem Solving	38	51	10	1
Communication	37	52	12	0
Creativity and Innovations	20	57	21	2
Collaboration	37	47	14	1
Science	40	48	12	0
Mathematics	54	38	8	0
Social Justice/Humanity/ Civic Literacy	17	53	25	5
Bilingual Opportunity	7	25	35	32
Leadership	18	51	27	5
Integration	17	52	27	5

TABLE 9

**Percent of Agreement with Global Awareness Statements:
2009 Randomly Selected Middle Schools**

Global Awareness Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
Teachers at my school promote global awareness by helping students develop an understanding of other cultures and diversity.	15	72	12	<1
Deliberate efforts are made at my school to promote global awareness and multiculturalism in the curriculum.	17	60	21	1
Teachers at my school are sufficiently supported and trained in 21st Century and global content.	7	51	39	3
My school has rigorous academic standards that help students prepare to succeed in a global society.	25	62	13	<1

percentage of schools that used direct instruction on a regular basis decreased from 90% in 1993, to 88% in 2001, to 81% in the current study (Table 12). The use of cooperative learning increased, as determined by the choice of use on a regular basis, from 50% in the 1993 study to 64% in the 2009 random study. Fifteen percent of schools indicated the use of on-line instruction on a regular basis with an additional 54% selecting the category of occasional use. On-line instruction was not included as a choice in the earlier studies. Overall, there continues to be a strong reliance on direct instruction and a trend toward the wider use of cooperative learning.

Instructional Grouping Practices

The percentage of schools using random grouping for instruction was 32% in 1993 and 23% in 2009 (Table 13). This indicates a continuing move away from heterogeneous grouping in today's middle schools. Thirty-eight percent of schools tracked at all

FIGURE 7

**Percent of Most Frequently Used Remedial Plans:
1993, 2001, and 2009**
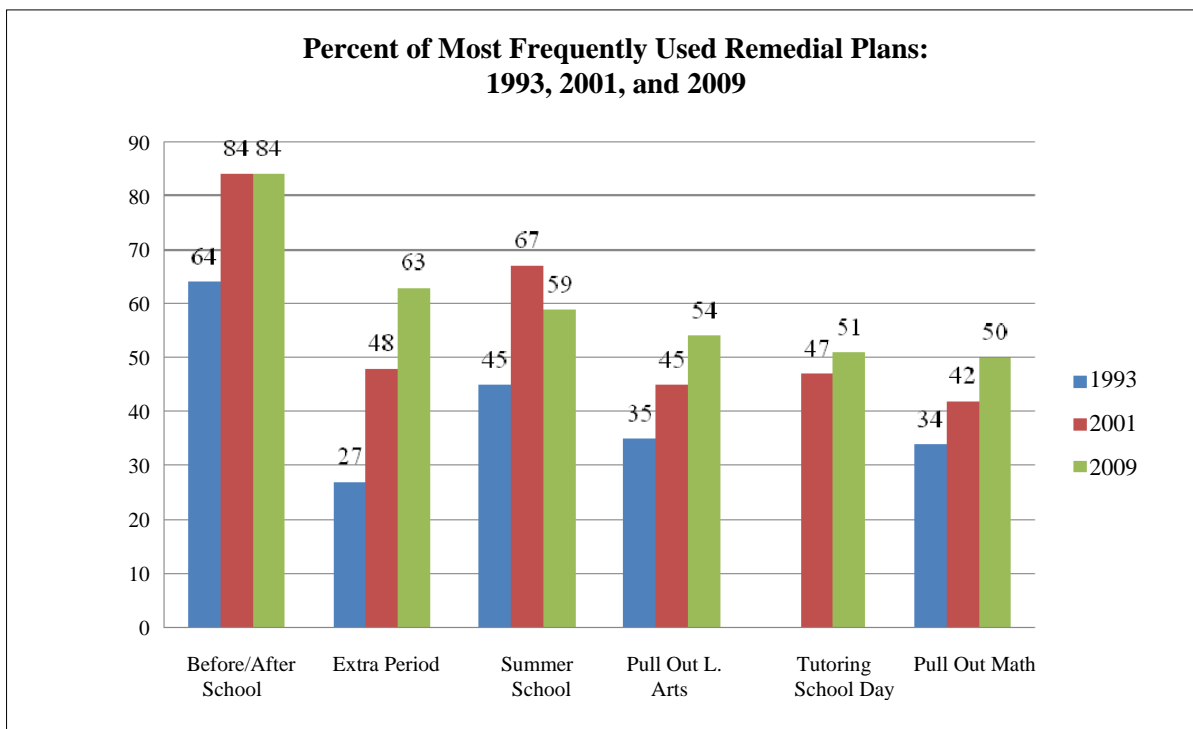
grade levels in selected subjects with an additional 30% tracking in certain grades levels in certain subjects. Seven percent tracked at all grade levels in all basic subjects with the remaining 2% tracking in certain grade levels in all basic subjects. The most frequently tracked subjects were mathematics (77%), language arts (33%), and reading (30%). Only 13% of schools tracked in science and 9% in social studies. With the exception of social studies where the percentage stayed about the same, all percentages of the use of tracking reported in the 2009 random study were somewhat higher than those in the 2001 study (Table 14). Nineteen percent of schools reported that they also tracked students in some non-core subjects.

Selected Remedial Arrangements

Respondents were provided with a list of various remedial arrangements that were possibly available to young adolescents at their schools. Those selected by 50% or more respondents included: (a) before and after school classes or tutoring, 84%; (b) extra period instead of an elective, 63%; (c) summer school, 59%;

(d) pull-out in language arts, 54%; and, (e) pull-out in mathematics, 50% (Table 15). All of these percentages represent increased use over results reported in the 1993 and the 2001 studies with the exceptions of before and after school classes or tutoring and summer school. The percentage of before and after school classes or tutoring remained the same at 84% while the provision of summer school dropped from 67% in 2001 to 59% in 2009 (Figure 7).

Standardized Testing

The Impact of Standardized Testing

The survey asked respondents to indicate the impact of standardized testing on selected middle level components at their schools. The choices provided for these statements were positive impact, no impact, and negative impact (Table 16). The response of positive impact was most frequently selected with 10 of the 14 statements receiving the highest

TABLE 10

Percent of Frequency of Advisory Meetings:
1988, 1993, 2001 and 2009 Randomly Selected Middle Schools

Frequency of Advisory Meetings	Percent			
	1988	1993	2001	2009
Daily	78	63	56	54
Four Days per Week	1	2	<1	4
Three Days per Week	3	4	2	1
Two Days per Week	9	6	16	7
One Day per Week	10	14	16	18
Other	-	11	10	16
Total	101	100	100	100

TABLE 11

Percent of Number of Minutes Scheduled for Advisory Meetings:
1988, 1993, 2001 and 2009 Randomly Selected Middle Schools

	Percent			
Number of Minutes	1988	1993	2001	2009
1-15	40	15	19	17
16-30	42	65	54	53
More than 30	17	20	27	30
Total	99	100	100	100

TABLE 12

Percent of Selected Teaching Strategies Used:
1993, 2001, and 2009 Randomly Selected Middle Schools

Teaching Strategies	Percent								
	1993			2001			2009		
	RN	OC	RG	RN	OC	RG	RN	OC	RG
Direct Instruction	1	9	90	1	11	88	<1	18	81
Cooperative Learning	3	47	50	<1	40	60	2	34	64
Inquiry Teaching	10	56	35	7	48	45	5	53	42
Independent Study	29	51	20	17	51	32	14	54	32
On-Line Instruction	-	-	-	-	-	-	31	54	15

Note: RN - Rarely, Never; OC - Occasionally; RG - Regularly

TABLE 13

Percent of Schools Using Selected Instructional Grouping Practices:
1993 and 2009 Randomly Selected Middle Schools

Instructional Grouping Practices	Percent	
	1993	2009
Grouping is Random	32	23
All Grade Levels in All Basic Subjects	4	7
All Grade Levels in Selected Subjects	37	38
Certain Grade Levels in All Basic Subjects	2	2
Certain Grades Levels in Certain Subjects	24	30
Total	99	100

TABLE 14

Percent of Schools Using Tracking in Selected Subjects:
2001 and 2009 Randomly Selected Middle Schools

Tracked Subjects	Percent	
	2001	2009
Mathematics	73	77
Language Arts	28	33
Reading	23	30
Science	12	13
Social Studies	10	9
Other	-	19

TABLE 15

Percent of Schools Using Selected Remedial Arrangements:
1993, 2001, and 2009 Randomly Selected Middle Schools

Remedial Arrangements	Percent		
	1993	2001	2009
Extra Work or Homework	43	47	39
Pull Out in Language Arts	35	45	54
Pull Out in Mathematics	34	42	50
Extra Period Instead of Elective	27	48	63
Reduced Time for Advisory	-	-	6
Tutoring During the School Day	-	47	51
Before or After School Classes or Tutoring	64	84	84
Saturday Classes	6	16	18
Summer School	45	67	59

percentages in this category. In 9 of the 10 responses, the percentages represented the majority of respondents. The highest percentages in the positive response category were curriculum rigor and clarity (84%), remediation practices (82%), professional development for teachers (80%), academic achievement in general (79%), and instructional delivery (73%).

The areas where the most common choice was no impact included intramural sports programs (71%), advisory programs (61%), flexible scheduling (49%), and heterogeneous instructional grouping (48%). Elective/enrichment classes and activities (27%), school climate (24%), and teacher planning time (15%) were among the choices that received the highest percentage of negative impact responses. The overall results are similar to those revealed in the 2001 survey. However, there was an increase in the percentages of respondents who viewed standardized testing as having positive impacts in several categories and smaller percentages of principals viewing standardized testing as having negative impacts on the middle level components.

Technology

Data regarding which technologies were available to students were collected. Respondents were also asked to indicate their views about the adequacy of professional development for teacher use of various technologies at their schools. Information about which technologies teachers incorporate into their instruction was also gathered in the survey.

Student Access to Selected Technologies

As shown in Figure 8 and Table 17, technologies most commonly available to students were: (a) word processing ,99%; (b) the Internet, 95%; (c) presentation software, 91%; (d) computers, 88%; (e) computer games, 82%; and, (f) special applications for subjects, 79%. These types of data were not collected in earlier surveys.

Technology Incorporated into Teaching

Respondents indicated that the following technologies and resources were incorporated into teaching at their schools. The selections that received

a response rate of 50% or higher include: (a) computer projection devices, 96%; (b) printers, 96%; (c) DVD players, 95%; (d) digital cameras, 87%, (e) televisions, 82%; (f) online research projects, 82%; (g) VCR players, 80%; (h) smart boards, 78%; (i) graphing calculators, 76%; (j) scanners, 71%; (k) assistive/adaptive devices for special needs students, 66%; and, (l) technology to improve student assessment (58%) (Table 18). Earlier surveys did not ask for this information about this topic, and therefore, no comparative data are available.

Technology and Professional Development

Respondents' views about professional development for teachers at their schools regarding technology were collected using three statements. Options for answers were strongly agree, agree, disagree, or strongly disagree. As shown in Table 19, when responses to strongly agree and agree were combined, 83% agreed that adequate support was provided for teachers. Seventy-five (75%) percent also agreed that professional development in the use of new and emerging technologies was adequate. However, only 67% agreed that teachers at their schools received adequate multi-media training. The survey also inquired about the use of selected technologies as resources for the professional development of teachers. The most commonly used technology resources for professional development were to promote more effective collaboration (69%), enhance productivity (69%), and provide online courses/workshops (54%).

Teacher Preparation and Licensure

Teacher Preparation

Respondents were asked to estimate the percent of core teachers at their schools who had received some level of specific professional preparation to teach young adolescents. The question did not specify the specific nature or depth of this preparation. It did not inquire about whether these teachers held a middle level education degree or a middle level teacher license. Seventy percent indicated that 51% or more core teachers had received some type of specialized middle level professional preparation with about one-third of schools having more than 90 percent of core teachers with some level of specialized middle

Table 16

**Percent of Impact of Standardized Testing on Selected Middle School Components:
2001 and 2009 Randomly Selected Middle Schools**

Component	Percent					
	Positive Impact		No Impact		Negative Impact	
	2001	2009	2001	2009	2001	2009
Academic Achievement in General	74	79	10	13	16	9
Advisory Program	27	28	58	61	15	12
Curriculum Rigor and Clarity	81	84	6	10	14	6
Electives/Enrichment Classes and Activities	33	41	36	32	31	27
Flexible Scheduling	42	38	36	49	22	14
Heterogeneous Instructional Grouping	30	39		48		14
Instructional Delivery	74	73	8	14	17	13
Instructional Grouping Practices	53	64	30	25	17	11
Intramural Sports Programs	--	20	--	71	--	9
Professional Development for Teachers	--	80	--	13	--	7
Remediation Practices	81	82	11	13	8	5
School Climate	45	57	15	20	41	24
Teacher Planning Time	41	51	34	35	25	15
Teaming	48	55	36	34	17	11

Total Responses: 620

level professional preparation. Fifteen percent of schools had from 1 to 20% of core teachers with some level of middle level professional preparation.

Teacher Licensure/Certification

Twenty-nine percent of respondents indicated that 51% or more core teachers at their schools held a distinct license/certification in middle level teacher preparation. Only 11% of schools had more than 80% of core teachers with a separate middle level certification. Forty-four percent of schools had between 0 and 20% of core teachers who held separate middle level certification (Table 20). Some progress has been made in providing core teachers with specialized middle level teacher professional

preparation. However, data from this survey show that the long-standing practice of allowing almost anyone with any type of teaching license to teach young adolescents continues unabated (McEwin, Dickinson, & Smith, 2003, 2004; McEwin & Smith, in press).

Importance and Implementation of Middle Level Components

The survey gathered information regarding the degree of importance respondents in the 2009 random survey placed on selected middle level
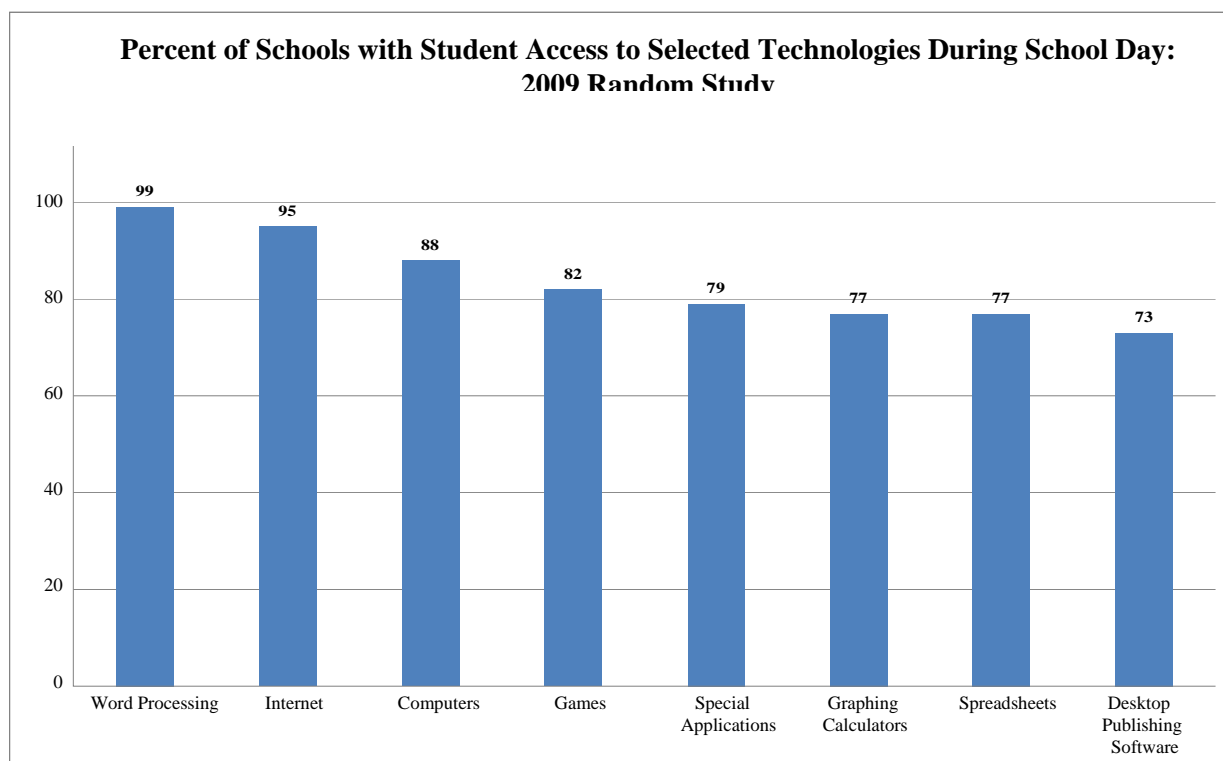
FIGURE 8

Percent of Schools with Student Access to Selected Technologies During School Day: 2009 Random Study

TABLE 17

Number and Percent of Schools with Student Access to Selected Technologies During the School Day: 2009 Randomly Selected Middle Schools

Technology Access by Students	Number	Percent
Word Processing	639	99
Integrated Learning Systems	196	30
Spreadsheets	496	77
Games	526	82
Special Applications for Subjects	507	79
Internet	612	95
Presentation Software	585	91
CD ROMS/Encyclopedias	472	73
Graphing Calculators	494	77
Probes for Data Acquisition	221	34
Desktop Publ. and Design Software	467	73
Webcams	106	16
Computers	565	88
Video/Data Projection	362	56
Video Editing Software	241	37
Visual Presenters	208	32
Personal Digital Assistants	27	4
Social Networking	11	2
Other	17	3

Total Responses: 644

Table 18

**Number and Percent of Schools Incorporating Selected Technologies into Teaching:
2009 Randomly Selected Middle Schools**

Type of Technology	Number	Percent
Online Research/Projects	532	82
Technology to Improve Student Assessment	371	58
Assistive/Adaptive Devices for Special Needs Students	417	66
Computer Projection Devices	618	96
Digital Cameras	560	87
HDTV Technology	51	8
Printers	620	96
Scanners	456	71
Smartboards	501	78
Television	530	82
Television Production	185	29
DVD Players	610	95
VCR Players	517	80
Amplified Audio System	237	37
Video Conferencing	144	22
Graphing Calculators	491	76
i-Pods	80	12
Flex Cam	119	18
Student Email	173	27
Online Learning Environment	153	24
Cell Phones	53	8
Personal Digital Assistants	40	6
Other	26	4

Total Respondees: 645

components. These components reflected those widely recommended in the literature and were taken primarily from *This We Believe* (2003). This was followed by a survey item that collected data about the level of implementation of these same components. Responses from these two survey items provided opportunities to explore the relationships between what components were valued and which ones had actually been implemented in respondents' schools.

Importance Placed on Middle Level Components

To help determine the level of importance placed on key middle level components, respondents were asked to rate these components using the choices of very important, important, unimportant, and very unimportant. Results revealed overwhelming support for the middle level components listed (Table 21). This indicates that respondents clearly supported tenets of the middle school philosophy as expressed in *This We Believe*. When the very important and important responses were combined, there was

TABLE 19

**Percent of Views on Statements about Professional Development for Technology:
2009 Randomly Selected Middle Schools**

Statements on Professional Development for Technology	Strongly Agree	Agree	Disagree	Strongly Disagree
Teachers at my school receive adequate professional development in the use of new and emerging technologies.	21	54	22	2
Adequate technical support is provided for teachers at my school.	27	56	15	2
Teachers at my school receive adequate multi-media training.	15	52	31	2

TABLE 20

**Number and Percent of Core Teachers with Separate Middle Level Licensure/Certification:
2009 Randomly Selected Middle Schools**

Percent of Core Teachers	Number	Percent
1-10	248	31
11-20	101	13
21-30	89	11
31-40	53	7
41-50	76	10
51-60	51	6
61-70	47	6
71-80	46	6
81-90	37	5
91-100	50	6
Total	798	101

unanimous agreement among respondents that the following components are important:

A strong focus on basic subjects;
Educators who value working with young adolescents;
Inviting, supportive, safe environments;
Teachers and students engaged in active learning;
Curriculum that is relevant, challenging, integrative, and exploratory;
Multiple teaching and learning approaches;

Trusting and respective relationships among administrators, teachers, and parents;
A shared vision of mission and goals; and,
Assessment and evaluation programs that promote quality learning.

The three components with the lowest level of agreement were all above 80% with teachers with middle school teacher licensure/certification receiving the lowest rating (84%).

TABLE 21

Percent of Level of Importance Respondents Placed on Middle Level Components:
2009 Randomly Selected Middle Schools

Components	Very Important	Important	Unimportant	Very Unimportant
Advisory Programs	36	51	12	2
Interdisciplinary Team Organization	63	30	7	<1
Flexible Scheduling and Grouping	48	40	12	<1
Strong Focus on Basic Subjects	78	22	0	0
Educators Who Value Working with Young Adolescents	94	6	0	0
Inviting, Supportive, Safe Environments	94	6	0	0
Teachers and Students Engaged in Active Learning	92	8	0	0
School Initiated School and Community Partnerships	51	47	2	0
Curriculum That is Relevant, Challenging, Integrative, and Exploratory	88	12	0	0
Multiple Teaching and Learning Approaches	85	15	0	0
School-wide Efforts to Foster Health, Wellness, and Safety	65	34	1	0
Teacher With Middle School/Level Teacher Certification/Licensure	35	49	14	2
Trusting and Respective Relationships Among Administrators, Teachers, and Parents	89	11	0	0
Evidence-Based Decision Making	70	29	1	0
A Shared Vision of Mission and Goals	79	21	0	0
Assessment and Evaluation Programs that Promote Quality Learning	77	23	0	0

Table 22

**Percent of Levels of Implementation of Selected Middle Level Components:
2009 Randomly Selected Middle Schools**

Components	Highly Implemented	Implemented	Limited Implication	Not Implemented
Advisory Programs	17	29	24	29
Interdisciplinary Team Organization	45	27	19	9
Flexible Scheduling and Grouping	22	33	33	13
Strong Focus on Basic Subjects	73	25	2	0
Educators Who Value Working with Young Adolescents	53	44	3	0
Inviting, Supportive, Safe Environments	65	33	2	0
Teachers and Students Engaged in Active Learning	42	49	9	0
School Initiated School and Community Partnerships	19	46	34	2
Curriculum that is Relevant, Challenging, Integrative, and Exploratory	40	52	8	0
Multiple Teaching and Learning Approaches	31	57	11	0
Schoolwide Efforts to Foster Health, Wellness, and Safety	35	51	14	0
Teacher With Middle School/Level Teacher Certification/Licensure	27	36	27	10
Trusting and Respective Relationships Among Administrators, Teachers, and Parents	46	48	6	0
Evidence-Based Decision Making	32	57	11	0
A Shared Vision of Mission and Goals	42	52	6	0
Assessment and Evaluation Programs that Promote Quality Learning	35	52	13	0

TABLE 23

**Percent of Agreement between Levels of Importance and Levels of Implementation
of Selected Middle Level Components:
2009 Randomly Selected Middle Schools**

Component	Level of Importance				Level of Implementation			
	VI	I	U	VU	HI	I	LI	NI
Advisory Programs	36	51	12	2	17	29	24	29
Interdisciplinary Team Organization	63	30	7	<1	45	27	19	9
Flexible Scheduling and Grouping	48	40	12	<1	22	33	33	13
Strong Focus on Basic Subjects	78	22	0	0	73	25	2	0
Educators Who Value Working with Young Adolescents	94	6	0	0	53	44	3	0
Inviting, Supportive, Safe Environments	94	6	0	0	65	33	3	0
Teachers and Students Engaged in Active Learning	92	8	0	0	42	49	9	0
School Initiated School and Community Partnerships	51	47	2	0	19	46	34	2
Curriculum that is Challenging, Integrative, and Exploratory	88	12	0	0	40	52	8	0
Multiple Teaching and Learning Approaches	85	15	0	0	31	57	11	0
Schoolwide Efforts to Foster Health, Wellness, and Safety	65	34	1	0	35	51	14	0
Teachers with Middle School/Level Teacher Certification/Licensure	35	49	14	2	27	36	27	10
Trusting and Respective Relationships Among Administrators, Teachers, and Parents	89	11	0	0	46	48	6	0
Evidence-Based Decision Making	70	29	1	0	32	57	11	0
A Shared Vision of Mission and Goals	79	21	0	0	42	52	6	0
Assessment and Evaluation Programs that Promote Quality Learning	77	23	0	0	35	52	13	0

Note: VI: Very Important; I: Important; U: Unimportant; VU: Very unimportant; HI: Highly Implemented; I: Implemented; LI: Limited Implementation; NI: Not Implemented

Levels of Implementation of Middle Level Components

To determine if middle level components highly valued by respondents were being implemented in their schools, data were gathered regarding the levels of implementation of these same components. The options for responses were highly implemented, implemented, limited implementation, and not implemented. Table 22 shows the percentages of responses for each category. When the responses of highly implemented and implemented are combined, the highest levels of implementation included:

Strong focus on basic subjects (98%);

Inviting, supportive, safe environments (98%);

Educators who value working with young adolescents (97%);

Trusting and respective relationships among administrators, teachers, and parents (94%);

A shared mission of mission and goals (94%);

Curriculum that is relevant, challenging, integrative, and exploratory (92%); and,

Teachers and students engaged in active learning (91%).

The components of evidence-based decision making (89%), multiple teaching and learning approaches (88%), assessment and evaluation programs that promote quality and learning (87%), and school-wide efforts to foster health, wellness, and safety (86%) were also viewed as highly implemented or implemented. Seventy-two percent of respondents reported that interdisciplinary team organization was implemented in their schools. An additional 19% indicated limited implementation of this middle level component. Only 46% of respondents reported that advisory programs were highly implemented (17%) or implemented (29%). Clearly, there is a significant gap in many schools between the levels of principal support for recommended middle level components and the actual implementation of those same programs and practices.

A Comparison of Levels of Importance and Implementation

When the levels of importance respondents placed on selected middle level components are compared with the same respondents' levels of implementation in their own schools, it is apparent that many middle level principals understand the importance of recommended middle level programs and practices even when they are not fully implemented, or implemented at all, in their schools (Table 23). The problem may lie with the difficulties of implementing and maintaining these developmentally responsive programs and practices in the face of standardized testing pressures, opposition from traditionalists, and other such factors.

When the responses of very important and important are compared with highly implemented and implemented, it is apparent that, in the judgments of middle level principals, their schools have been more successful in implementing some components they value highly more than others. In areas such as strong focus on basic subjects, educators who value working with young adolescents, and trusting and respective relationships among administrators, teachers, and parents, the percentages between the values placed on the components by principals and the levels of implementation are relatively high. However, there are larger discrepancies in other areas such as flexible scheduling and grouping (88% vs. 55%), advisory programs (87% vs. 46%), and teachers with middle school/level teacher certification/licensure (84% vs. 63%). Note, however, that the response of limited implementation was not considered in this analysis. For example, if the responses of highly implemented, implemented, and limited implementation are combined, the percentage of middle schools with advisory programs increases from 46% to 70%, and the percentage of schools implementing flexible scheduling and grouping increases from 55% to 88%.

The Highly Successful Middle School Survey

Introduction

This section provides results from a second national survey conducted by the authors during the same time period as the national survey of randomly selected middle schools described in Section II of this report. The same research instrument, with the exception of a few questions, was used in both surveys. Whereas the primary purpose of the first 2009 random study of public middle schools was to determine the overall status of programs and practices, the most important purpose of the second 2009 survey was to find out about the nature of middle level programs and practices in some of the nations' most successful middle schools. The authors were interested in questions such as the following: Are these highly successful schools utilizing programs and practices that are widely recommended for middle level programs and schools or are they moving away from programs and practices commonly associated with the middle school concept? In what ways are these schools the same and different from schools in the random sample? Are there lessons that can be learned from these highly successful middle schools that could help improve all middle schools?

Design of the Study

The sample in this survey, the Highly Successful Middle Schools (HSMS) survey, was middle schools that have received recognition as *Schools to Watch* in a program sponsored by the National Forum to Accelerate Middle Grades Reform and/or by recognition as *Breakthrough Middle Schools* in a program sponsored by the National Association of Secondary School Principals (NASSP). The selection process for both of these recognition programs is rigorous with criteria including, but not limited to, a successful record of improving standardized test scores. Middle schools receiving these recognitions have been visited and recommended by trained

outside evaluators who have expertise in middle level education. The criteria for recognition accurately reflect what is known about highly successful middle schools and can be accessed through the web sites of each respective organization (National Association of Secondary School Principals, n. d.; National Forum to Accelerate Middle Grades Reform, n. d.). In this section and in the remainder of this report, this survey of highly successful middle schools is referred to as the *HSMS study*. From this point forward, the larger 2009 study of 827 randomly selected middle schools is called the *2009 random study*. Both of these surveys were conducted during the spring of 2009.

This section reports on data collected by this survey and in some areas compares data from the 2009 random survey with that from the HSMS survey. However, these comparisons should not be interpreted as effective versus ineffective middle schools, but rather as a comparison of middle schools that have been granted national recognition for excellence as compared to middle schools found in the general population of the nation's public middle schools. The authors are well aware that the random sample also includes many highly successful middle schools.

At the time this study was initiated, 186 middle schools had been identified as Schools to Watch or NASSP Breakthrough Middle Schools. The NASSP Breakthrough School recognition program was new at the time with only seven middle schools having been recognized. Surveys were sent via email attachment to these 186 schools with responses being received from 101 schools for a return rate of 54% (Table 24).

Table 24
Number and Percent of
National Recognition Status of Schools:
2009 Highly Successful Middle School Study

Recognition Status	Number	Percent
Schools-to-Watch	93	92
NASSP Breakthrough Middle Schools	7	7
Both Recognitions	1	1
Total	101	100

Table 25
Number and Percent of
Grade Organization Patterns:
2009 Highly Successful Middle School Study

Grade Organization	Number	Percent
5-8	7	7
6-8	66	65
7-8	15	15
Other	13	13
Total	101	100

Other: PK-8, 2; 4-8, 1; 5-6, 2; 6 only, 1; 6-7, 4; 7-9, 3

Grade Organization, Community Types, and Free and Reduced Lunch Rates

Eighty-seven percent of the grade organizations of these schools were grades 5-8, 6-8, and 7-8. The remaining 13% were included because they had been recognized as Schools to Watch (Table 25). All schools in the 2009 random survey were grades 5-8, 6-8, and 7-8 schools.

Twenty-seven percent of these schools were in rural communities, 17% in urban areas, and 56% in suburban areas. The percent of urban schools was almost identical in the two 2009 studies. However, the random study included a larger percentage of rural schools and a smaller percentage of suburban schools than did the HSMS sample (Table 26).

Twenty-seven percent of schools reported that 51% or more of students qualified for the free or reduced lunch program at their schools (Table 27). Thirty-six percent of schools in the 2009 random sample had this percentage of students that qualified. Thirty-four percent of HSMS had 1 to 20% of students who qualified for the free and reduced lunch program as compared to 24% of schools in the 2009 random sample.

School Enrollments

Student enrollments in the HSMS study were larger than those in the 2009 random study (Table 28). About one-third (32%) of schools in the HSMS study had enrollments of 600 or fewer as compared to 52% of schools in the 2009 random study. Likewise, almost one-fourth (24%) of schools in the HSMS study enrolled more than 1000 students with only 9% of schools in the 2009 random study having this size student body.

Standardized Test Results

With part of the selection process for schools in the HSMS study being based on standardized test scores, it is not surprising that standardized test scores are higher than in the random sample of middle schools. Ninety-three percent of schools in the HSMS sample reported that 51% or more of students were on or above grade level in mathematics (Table 29). Eighty-two percent of schools in the random sample reached this level. Ninety-eight percent of HSMS had 51% or more students on or above grade level in reading (Table 30). Eighty-six percent of schools in the 2009 random sample achieved this same level of success. Fifty-two percent of HSMS had 81% or more students scoring on or above grade level in mathematics and 45% in reading. Both of these percentages exceed those from the 2009 random sample.

Interdisciplinary Team Organization and Common Planning Time

Ninety percent of schools utilized interdisciplinary team organization. This is a higher percentage than was found in the 2009 random study (72%). There was also a higher incidence of the provision of common planning periods for core teachers in the

TABLE 26

Percent of Community Types:
2009 HSMS and 2009 Random Studies

Community Type	2009 HSMS Study Percent	2009 Random Study Percent
Rural	27	43
Urban	17	18
Suburban	56	39
Total	100	100

TABLE 27

Percent of Students Qualifying for
the Free and Reduced Lunch Program:
2009 HSMS Study and 2009 Random Study

Percent Free or Reduced Lunch	2009 HSMS Study Percent	2009 Random Study Percent
None	0	<1
1-10	18	9
11-20	16	15
21-30	11	14
31-40	17	13
41-50	11	12
51-60	13	12
61-70	7	8
71-80	5	6
81-90	2	7
91-100	0	3
Total	100	99

HSMS. Forty percent of HSMS provide core teachers with 10 common planning periods per week with only 28% of schools from the random study following this plan. Ninety-four percent of HSMS provide five or more common planning times per week as compared to 77% of schools from the 2009 random study.

Scheduling Plans

Schools in the HSMS study were more likely to use a flexible block schedule (30%) than were schools in the 2009 random study (14%) (Table 31). There was also greater use of scheduling plans that utilized daily periods of varying lengths (22%) than was the case in the random sample (10%). Schools in the 2009 random sample were much more likely to use daily uniform periods (72%) than were schools in the HSMS sample (45%).

Middle Level Curriculum

Core Subjects

Since the core courses of language arts, mathematics, science, and social studies are part of the curriculum at all middle schools, respondents were not asked to indicate whether these courses were offered. They were asked to provide the average number of minutes per day each subject was allotted in the schedule. Although schools in the HSMS study scheduled somewhat larger numbers of minutes in the majority of subjects at all grade levels, these differences were typically rather small (Table 32). The total daily minutes provided for core subjects in HSMS, as compared to schools in the 2009 random study, was lower at the fifth grade level (223 vs. 229), and higher at the sixth (240 vs. 226), seventh (234 vs. 219) , and eighth grade levels (233 vs. 219). Overall, HSMS scheduled somewhat larger blocks of time for instruction in core subjects than schools in the random study.

Required Non-Core Subjects

Subjects, other than core subjects, that were most often required in HSMS are shown in Table 33. The most frequently required non-core subjects in sixth grade were physical education (83%), reading (67%), health (59%), art (48%), general music (46%), computers (45%), and creative writing (42%). The most often required non-core courses at the seventh

TABLE 28
Percent of Enrollments of Schools:
2009 HSMS Study and 2009 Random Study

Student Enrollment	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-200	1	8
201-400	13	19
401-600	18	25
601-800	20	24
801-1000	25	14
More than 1000	24	9
Total	101	99

TABLE 29

Percent of Students Scoring On or Above
Grade Level in Mathematics:
2009 HSMS Study and 2009 Random Study

On or Above Grade Level Scores	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-10	0	<1
11-20	0	1
21-30	0	4
31-40	1	7
41-50	5	7
51-60	5	11
61-70	13	18
71-80	23	23
81-90	35	20
91-100	17	10
Total	99	101

grade level were physical education (82%), health (59%), reading (55%), general music (49%), sex education (37%), and art (33%). The most often required eighth grade non-core classes were physical education (79%), reading (55%), health (51%), foreign language (36%), and sex education (35%). The most popular non-core required courses for eighth grade were physical education (79%), reading (55%), and health (51%). Overall, schools in the

2009 random and HSMS samples differed somewhat in the courses required at the various grade levels. In most cases, however, the non-core subjects required were similar. Subjects such as art, general music, and reading were more often required at the fifth and sixth grade levels than at higher grade levels.

Elective Subjects

As shown in Tables 7 and 34, the electives offered by schools in the random sample and the HSMS sample had many similarities. Band, chorus, art, orchestra, computers, and general music continue to be popular offerings at all grade levels. The percentage of schools with fifth grade offered fewer electives at that level. Band was offered as an elective at somewhat lower percentages in the HSMS sample than in the random sample (Figures 9 and 10).

Interest/Mini-Course Programs

Respondents were asked to indicate if they had interest course/mini-course programs at their schools. Interest/mini courses were defined as short term, student interest-centered courses sometimes called exploratory courses. Forty-nine percent of HSMS reported having these programs. This percentage is higher than was revealed in the 2009 random study (39%).

Global Education Curriculum

As noted earlier in this report, there is growing recognition of the importance of middle level students gaining a global perspective through middle level curriculum (Asia Society, 2008; Jackson, 2009). HSMS respondents were asked to indicate the level of emphasis placed on global education in the curriculum at their schools based on a series of statements that encompassed core global education components. The areas HSMS most highly emphasized were mathematics (70%), critical thinking and problem solving (61%), collaboration (58%), and science (52%). This represents a stronger emphasis on these areas than was found in the random sample of middle schools. For example, 61% of HSMS placed a high emphasis on critical thinking and problem solving as compared to only 38% of the 2009 randomly selected schools. Rather large differences were also found in areas such as collaboration, mathematics, and science (Table 35). When responses to the choices of highly emphasized

Table 30

Percent of Students Scoring On or Above Grade Level in Reading:
2009 HSMS Study and 2009 Random Study

On or Above Level Scores	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-10	0	<1
11-20	0	1
21-30	0	2
31-40	0	4
41-50	2	6
51-60	6	10
61-70	16	13
71-80	31	24
81-90	18	25
91-100	27	14
Total	100	99

Table 31

Percent of Scheduling Plans Utilized by Schools:
2009 HSMS Study and 2009 Random Study

Schedule Type	2009 HSMS Study	2009 Random Study
	Percent	Percent
Daily Uniform	45	72
Daily Periods-	22	10
Flexible Block	30	14
Self-Contained	0	<1
Other	3	3
Total	100	99

and emphasized were combined, results from the two surveys were not as divergent. However, percentages representing levels of emphasis were still higher in all areas, with the exception of mathematics, in the HSMS sample as compared with the 2009 random sample (Table 36). This indicates that highly successful middle schools place a stronger emphasis on topics related to global curriculum than do other schools.

Respondents were also asked to indicate their level of agreement with four global curriculum statements. HSMS had higher levels of agreement with all four global awareness statements than did schools in the random sample (Table 37). When results from the categories of strongly agree and agree were combined, 96% of respondents at HSMS and 87% at randomly selected schools agreed or strongly agreed with the statement "My school has rigorous academic standards that help students prepare to succeed in a global society." Ninety-five percent of HSMS respondents and 87% of those at randomly selected schools indicated these levels of agreement for "Teachers at my school promote global awareness by helping students develop an understanding of other cultures and diversity." Respondents from 91% of HSMS and 77% from the randomly selected sample of agreed or strongly agreed with the statement "Deliberate efforts are made at my school to promote global awareness and multiculturalism in the curriculum." Seventy-two percent of respondents from HSMS and 58% from randomly selected schools agreed or strongly agreed with the statement "Teachers at my school are sufficiently supported and trained in 21st century and global content."

Middle School Sports
As noted earlier in this report, only limited data were collected regarding middle school sports. Respondents were asked to indicate the nature of sports programs at their schools. Both interscholastic and intramural sports programs are offered in the majority of HSMS (53%) and randomly selected middle schools (46%). Schools in the 2009 random study (45%) were more likely than HSMS (35%) to offer interscholastic-only sports programs. Only small percents of both samples offered only intramurals (Table 38).

Advisory Programs
Sixty-five percent of HSMS, as compared to 53% of randomly selected schools, reported having formal advisory programs. Fifty-four percent of randomly selected schools and 44% of HSMS scheduled advisory meetings on a daily basis (Table 39). Twenty-two percent of HSMS and 18% of randomly selected middle schools scheduled advisory one day per week. Eighty-six percent of HSMS and 83% of randomly selected middle schools schedule advisory for 16 minutes or more (Table 40).

TABLE 32

**Average Number of Minutes Scheduled Daily for Core Subjects by Grade Level:
2009 HSMS Study and 2009 Random Study**

Subject and Grade	Language Arts				Mathematics				Science				Social Studies			
	5th	6th	7th	8th	5th	6th	7th	8th	5th	6th	7th	8th	5th	6th	7th	8th
HSMS Study	70	77	68	67	62	62	60	60	47	50	53	53	44	51	53	53
Random Study	71	70	64	64	60	57	55	55	49	50	50	50	49	49	50	50

TABLE 33

Percent of Schools Requiring Selected Non-core Subjects by Grade Level: 2009 HSMS Study

	Fifth	Sixth	Seventh	Eighth
Art	75	48	33	27
Career Education	8	24	26	27
Computers	50	45	26	27
Creative Writing	25	42	27	21
Family and Consumer Science	25	13	24	14
Foreign Language	8	17	15	36
General Music	67	46	49	19
Health	25	59	59	51
Industrial Arts	17	11	17	15
Life Skills	17	17	17	15
Physical Education	83	83	82	79
Reading	67	67	55	55
Sex Education	8	25	37	35
Word Processing	17	27	21	18

Middle Level Instruction

Instructional strategies, instructional grouping practices, and remediation arrangements are presented in this section of the report.

Teaching Strategies

Respondents were asked to indicate the extent to which selected teaching strategies were used in their schools. Choices for each strategy were rarely or never, occasionally, or regularly. Seventy-one percent of HSMS used direct instruction on a regular basis as compared to 81% of schools in the 2009 random study. As shown in Table 41, HSMS also used highly recommended instructional strategies such as cooperative learning and inquiry teaching on a regular basis more frequently than schools in the random survey. About one-third of schools in both studies used independent study as a teaching strategy on a regular basis. On-line instruction was used on a regular basis in 20% of HSMS and 15% of schools in the 2009 random study.

Instructional Grouping Practices

The most common method of grouping young adolescents for instruction in the HSMS sample was tracking in all grades in selected subjects (40%) with 28% tracking in certain grade levels in selected

TABLE 34

Percent of Schools with Electives in Selected Subjects by Grade Level: 2009 HSMS Study

	Fifth	Sixth	Seventh	Eighth
Art	8	47	57	64
Band	58	81	87	87
Career	0	18	28	33
Chorus	42	60	70	72
Computers	17	37	48	55
Creative Writing	0	2	6	5
Family and Consumer Science	0	12	28	34
Foreign Language	8	21	43	50
Gen Music	17	29	29	29
Health	0	18	19	21
Industrial Arts	8	12	31	36
Journalism	0	5	10	14
Life Skills	0	11	16	16
Orchestra	42	47	49	52
Phys Educ	8	24	29	31
Reading	0	13	18	18
Sex Education	0	4	5	5
Speech	0	4	10	10
Word Processing	0	19	24	25

subjects and 10% tracking at all grade levels in basic subjects. Twenty-three percent of HSMS group students heterogeneously in all subject areas. As shown in Table 42, these findings were very similar to those revealed in the 2009 study of randomly selected middle schools. For example, 77% of schools in both surveys used some form of ability grouping/tracking to group young adolescents for instruction in at least some subject areas. Additionally, in both HSMS (79%) and randomly selected middle schools (77%), the subject most often tracked was mathematics. Other results from both 2009 surveys on this topic were similar (Table 43).

Selected Remedial Arrangements

Of the list of common remedial arrangements presented to respondents, the ones most often utilized at HSMS were before and after school classes (86%) and extra period instead of elective (69%). These were also the most frequently used practices in the randomly selected middle schools.

Tutoring during the school day was utilized by 59% of HSMS and 51% of randomly selected middle schools. As revealed in Table 44, the remediation practices used by middle schools in both 2009 surveys were not different in substantial ways.

Standardized Testing

The Impact of Standardized Testing

The HSMS survey asked respondents' opinions on the effects of standardized testing on selected components of middle schools. The components with the highest percentages of respondents feeling that standardized testing was a positive influence were curriculum rigor and clarity (82%), remediation practices (81%), professional development for teachers (77%), and academic achievement in general (70%). These were also the top choices in the randomly selected middle school sample. In the HSMS sample, respondents viewed testing to have no impact most frequently on intramural sports programs (69%), advisory programs (52%),
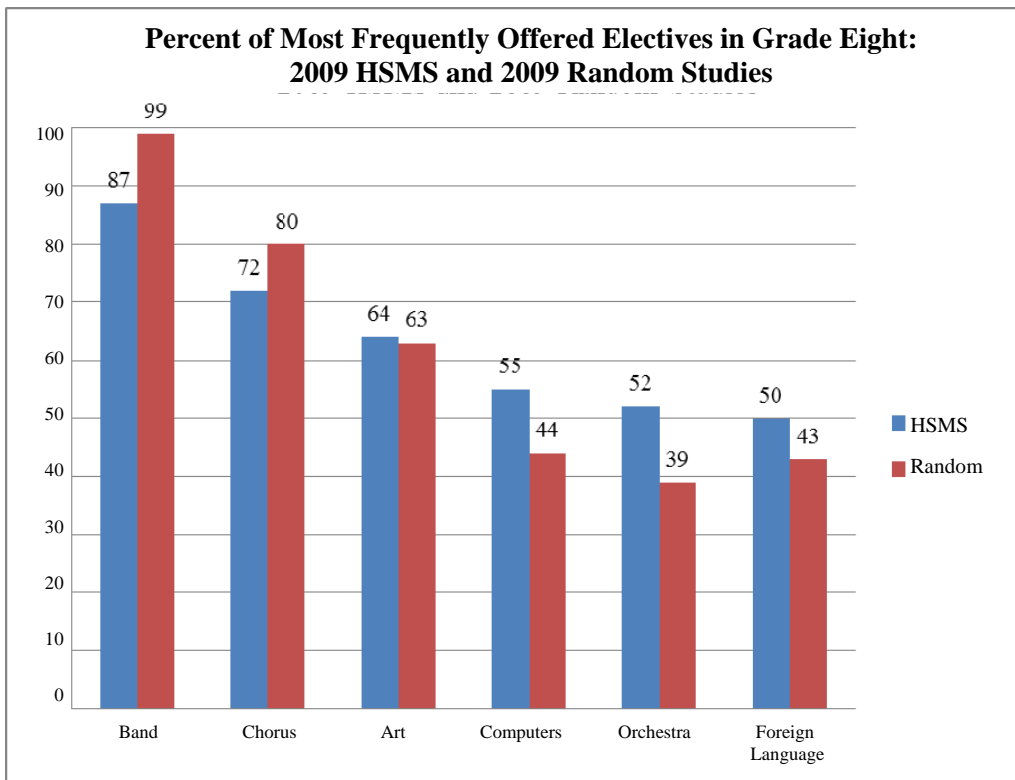
FIGURE 9

**Percent of Most Frequently Offered Electives in Grade Six:
2009 HSMS and 2009 Random Studies**

FIGURE 10

**Percent of Most Frequently Offered Electives in Grade Eight:
2009 HSMS and 2009 Random Studies**
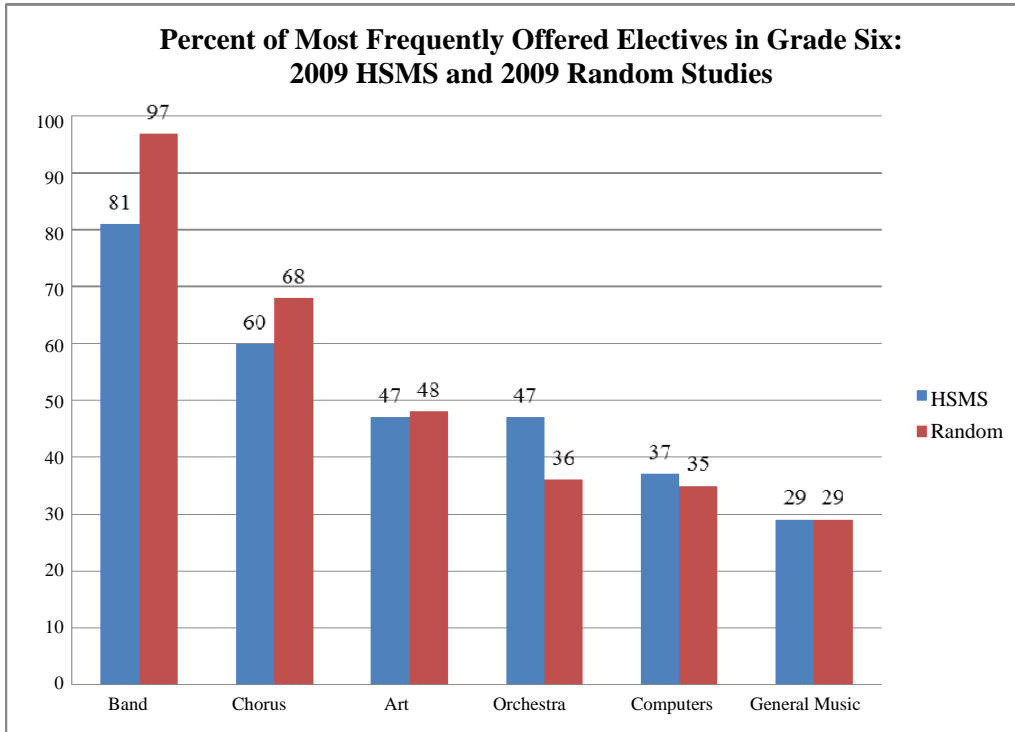
heterogeneous grouping (44%), and teaming (43%). With the exception of teaming, these were also the top choices in the 2009 random survey. The components in the HSMS survey that received the largest percentages of views that standardized testing had a negative impact included elective/enrichment classes (26%), flexible scheduling (23%), school climate (22%), and heterogeneous grouping (18%). As shown in Table 45, results from the 2009 randomly selected schools revealed similar, but not identical patterns regarding the components most negatively affected by standardized testing.

Technology

In both 2009 surveys, data were collected about which technologies were available to students. Respondents were also asked to indicate their views about the adequacy of professional development for teacher use of various technologies at their schools. Data regarding which technologies teachers incorporate into their instruction were also collected.

Student Access to Selected Technologies
A wide array of technology was available to young adolescents in most middle schools included in both 2009 surveys. The most common technologies available in HSMS included word processing (93%), the Internet (88%), computers (86%), presentation software (85%), graphing calculators (81%), and spreadsheets (81%).

As shown in Table 46, schools in the 2009 random sample had similar access to these and other technologies. Middle schools in the 2009 random sample had higher levels of access than HSMS to some technologies such as word processing (99%), and the Internet (95%) than did HSMS.

Technology Incorporated into Teaching
Respondents from HSMS were presented a list of common technologies and asked which ones were incorporated into instruction at their schools. Those most frequently indicated were: (a) DVD players, 91%; (b) computer projection devices, 90%; (c) printers, 90%; (d) online research/projects, 85%; (e) digital cameras, 85%; (f) television, 78%; (g)

graphing calculators, 78%; (h) VCR players, 77%; (i) scanners, 76%; and (j) technology to improve student assessment, 70%. Some differences were revealed when comparing the technologies incorporated into instruction in schools from both surveys (Table 47). In general, the priorities for which technologies are incorporated into instruction follow similar patterns in both 2009 surveys.

Technology and Professional Development
In the HSMS survey, respondents' views about professional development for teachers at their schools regarding technology were collected using three statements. Options for answers were strongly agree, agree, disagree, or strongly disagree. When responses to strongly agree and agree were combined, 84% of respondents agreed that adequate support was provided for teachers (Table 48). An almost identical 84% of respondents in the HSMS study and 83% in the randomly selected middle schools study agreed that "Teachers at their schools received adequate technical support." Seventy-eight percent also agreed that "Professional development in the use of new and emerging technologies was adequate." Seventy-five percent of 2009 randomly selected middle schools agreed with this statement. The HSMS survey also inquired about the use of selected technologies as resources for the professional development of teachers. The most commonly used technology resources for professional development were computers (90%), teacher web pages (79%), technology to enhance productivity (73%), and technology to collaborate with other educators on-line (70%). Results from the 2009 randomly selected middle schools were similar to these findings (Table 49).

Teacher Preparation and Licensure
Teacher Preparation
Respondents in the HSMS survey were asked to estimate the percent of core teachers at their schools who had received some level of specific professional preparation to teach young adolescents. The question did not specify the specific nature or depth of this preparation. It did not inquire into whether these teachers held a middle level education degree or a middle level teacher license. Seventy-three percent

Table 35

Percent of Curriculum Emphasis on Global Education: 2009 HSMS Study

Curriculum Emphasis on Global Education	Highly Emphasized	Emphasized	Somewhat Emphasized	Not Emphasized
Critical Thinking and Problem Solving	61	32	6	1
Communication	47	40	10	2
Creativity and Innovations	32	51	14	2
Collaboration	58	34	6	2
Science	52	41	7	0
Mathematics	70	22	8	0
Social Justice/Humanity/ Civic Literacy	23	51	21	4
Bilingual Opportunity	8	26	40	26
Leadership	29	49	20	2
Integration	32	44	19	4

Table 36

Percent of HSMS and Randomly Selected Schools that Emphasize or Highly Emphasize Selected Global Education Curricular Components: 2009 HSMS and 2009 Random Study

Curriculum Emphasis on Global Education	2009 HSMS Study	2009 Random Study
Critical Thinking and Problem Solving	93	89
Communication	87	89
Creativity and Innovations	83	77
Collaboration	92	84
Science	93	88
Mathematics	92	92
Social Justice/Humanity/ Civic Literacy	74	70
Bilingual Opportunity	34	32
Leadership	78	69
Integration	76	69

Table 37

Percent of Agreement with Global Awareness Statements: 2009 HSMS Study

Global Awareness Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
Teachers at my school promote global awareness by helping students develop an understanding of other cultures and diversity.	30	65	5	0
Deliberate efforts are made at my school to promote global awareness and multiculturalism in the curriculum.	32	59	9	0
Teachers at my school are sufficiently supported and trained in 21st century and global content.	15	57	27	0
My school has rigorous academic standards that help students prepare to succeed in a global society.	39	57	3	0

of HSMS respondents and 70% of the 2009 randomly selected middle schools indicated that 51% or more of their core teachers had some level of specialized middle level professional preparation. Forty-six percent of HSMS and 44% of randomly selected middle schools reported that 81 to 100% of core teachers had some level of middle level professional preparation. Sixteen percent of HSMS and 15% randomly selected middle schools had only between 1 and 20% of core teachers with any level of professional preparation (Table 50).

Teacher Licensure/Certification

Forty-nine percent of HSMS respondents indicated that 51% or more core teachers at their schools held a distinct middle level teaching license/certification. This compares with only 29% of randomly selected middle schools having this level of middle level teacher licensure. Twenty-seven percent of HSMS reported having 81-100% of core teachers with separate middle level teacher licensure as compared to only 11% of schools from the 2009 randomly selected middle school survey. Higher percentages of schools in the HSMS sample had core teachers with specialized middle licensure than was the case in the randomly selected middle schools sample. Other trends regarding this topic are provided in Table 51.

Importance and Implementation of Middle Level Components

Importance Placed on Middle Level Components

To help determine the level of importance placed on key middle level components, HSMS respondents were asked to rate these components using the choices of very important, important, unimportant, and very unimportant. Results revealed overwhelming support for the middle level components listed (Table 52). This indicates that respondents clearly supported tenets of the middle school philosophy as expressed in *This We Believe* (2003) and elsewhere in the middle level literature. When the very important and important responses were combined, there was unanimous agreement among respondents that the following components are important:

A strong focus on basic subjects;

Educators who value working with young adolescents;

Inviting, supportive, safe environments;

School initiated school and community partnerships;

Teachers and students engaged in active learning;

Curriculum that is relevant, challenging, integrative, and exploratory;

Multiple teaching and learning approaches;

TABLE 38

**Percent of Schools with
Types of Sports Programs:
2009 HSMS Study and 2009 Random Study**

Program Types	2009 HSMS Study	2009 Random Study
	Percent	Percent
Interscholastic Only	35	45
Intramural Only	12	9
Interscholastic and Intramural	53	46
Total	100	100

TABLE 39

**Percent of Frequency of Advisory Meetings:
2009 HSMS Study and 2009 Random Study**

Frequency of Advisory	2009 HSMS Study	2009 Random Study
	Percent	Percent
Daily	44	54
Four Days/Week	9	4
Three Days/Week	0	1
Two Days/Week	5	7
One Day/Week	22	18
Other	19	16
Total	99	100

TABLE 40

**Percent of Number of Minutes
Scheduled for Advisory:
2009 HSMS Study and 2009 Random Study**

Number of Minutes	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-15	13	17
16-30	62	53
More than 30	24	30

Trusting and respective relationships among administrators, teachers, and parents;

School-wide efforts to foster health, wellness, and safety;

A shared vision of mission and goals; and,

Assessment and evaluation programs that promote quality learning.

The five remaining components with the lower levels of agreement still reflected strong support for the components listed:

Evidence-based decision making (99%);

Interdisciplinary teaming (98%);

Flexible scheduling and grouping (96%);

Advisory programs (91%); and,

Teachers with middle school/level teacher certification/licensure (86%).

Comparison of these results with those collected in the 2009 randomly selected middle schools show high levels of agreement between results from the two surveys. However, HSMS respondents supported some key middle level components at somewhat higher levels (e.g., advisory, 91% vs. 87%; teaming 98% vs. 93%; flexible scheduling and grouping 96% vs. 88%).

Levels of Implementation of Middle Level Components

To determine if middle level components highly valued by HSMS respondents were being implemented in their schools, data were also gathered regarding the levels of implementation of these same components. The options for responses were highly implemented, implemented, limited implementation, and not implemented. Table 53 shows the percentages of responses for each category. When the responses of highly implemented and implemented are combined, the highest levels of implementation included:

Trusting and respective relationships among administrators, teachers, and parents (100%);

Strong focus on basic subjects (99%);

A shared vision of mission and goals (99%);

Inviting, supportive, safe environments (99%);

Table 41

Percent of Use of Selected Teaching Strategies: 2009 HSMS Study and 2009 Random Study

	Rarely or Never		Occasionally		Regularly	
	HSMS	Random	HSMS	Random	HSMS	Random
Direct Instruction	2	<1	27	18	71	81
Cooperative Learning	0	2	15	34	85	64
Inquiry Teaching	0	5	43	53	57	42
Independent Study	6	14	60	54	33	32
On-Line Instruction	22	31	58	54	20	15

Teachers and students engaged in active learning (98%);

Educators who value working with young adolescents (97%);

Assessment and evaluation programs that promote quality learning (95%);

Curriculum that is relevant, challenging, integrative, and exploratory (94%);

Evidence-based decision making (93%);

Multiple teaching and learning approaches (92%);

Schoolwide efforts to foster health, wellness, and safety (89%);

Interdisciplinary team organization (88%);

Flexible scheduling and grouping (83%);

School initiated school and community partnerships (82%).

The two remaining components reflected the lowest levels of implementation. Fifty-six percent of HSMS had implemented advisory programs and 62% had implemented employing core teachers with middle level licensure. One reason for the lower implementation of teachers with middle level licensure may reflect the limited supply of those teachers, especially in states that do not have middle level teacher licensure.

Implementation Levels in HSMS and Randomly Selected Middle Schools

As noted previously, the level of importance placed on selected middle level components by respondents in the two 2009 surveys strongly support recommended middle level components. This support is especially strong when the choices of very important and important are combined. When the category of very important is compared between the two 2009 surveys, however, it is clear that HSMS respondents support the components at higher levels than do those from schools in the 2009 random sample. With the exception of teachers with middle level teacher licensure, the support is stronger in all components included in the survey question. This higher level of importance placed on some key components frequently advocated for middle level schools is especially discernible (e.g., interdisciplinary team organization, 81% vs. 63%); flexible scheduling and grouping, 71% v. 48%).

The high level of importance placed on middle level components included in the survey seemed to carry over into the levels of implementation of HSMS as compared to schools in the 2009 random sample. As shown in Table 53, when the categories of highly implemented and implemented are combined, the HSMS show higher levels of implementation with the exception of middle level core teachers with middle level certification/licensure (HSMS, 62% vs. randomly selected middle schools 63%). When the category of highly implemented from the HSMS survey is compared with that of the randomly selected middle school survey, it is clearly revealed that HSMS have a much higher level of highly implemented middle level components. Some components with rather large differences include those below. The first percentage represents HSMS and the second percentage randomly selected middle schools from the 2009 study.

Advisory programs, 26% and 17%;

Strong focus on basic subjects, 87% and 73%;

Interdisciplinary team organization, 71% and 45%;

TABLE 42

Percent of Types of Instructional Grouping Practices:
2009 HSMS Study and 2009 Random Study

Instructional Grouping Practices	2009 HSMS Study	2009 Random Study
	Percent	Percent
Grouping is Random	23	23
All Grade Levels in All Basic Subjects	10	7
All Grade Levels in Selected Subjects	40	38
Certain Grade Levels in All Basic Subjects	0	2
Certain Grades Levels in Certain Subjects	28	30
Total	101	100

TABLE 43

Percent of Use of Tracking Practices: 2009 HSMS Study and 2009 Random Study

Tracking Practices	2009 HSMS Study	2009 Random Study
	Percent	Percent
Mathematics	79	77
Language Arts	41	33
Reading	19	30
Science	19	13
Social Studies	13	9
Other	2	19

TABLE 44

Percent of Types of Remedial Practices: 2009 HSMS Study and 2009 Random Study

Remedial Arrangements	2009 HSMS Study	2009 Random Study
	Percent	Percent
No Remedial Arrangements	3	1
Extra Work or Homework	40	39
Pull Out in Language Arts	50	54
Pull Out in Mathematics	51	50
Extra Period Instead of Elective	69	63
Reduced Time for Advisory	11	6
Tutoring During the School Day	59	51
Before or After School Classes or	86	84
Saturday Classes	19	18
Summer School	50	59
Other	15	8

TABLE 45

**Percent of Views of Influences of Standardized Testing:
2009 HSMS Study and 2009 Random Study**

Component	Positive Impact		No Impact		Negative Impact	
	HSMS	R	HSMS	R	HSMS	R
Academic Achievement in General	70	79	18	13	12	9
Advisory Program	31	28	52	61	17	12
Curriculum Rigor and Clarity	82	84	12	10	6	6
Electives/Enrichment Classes	38	41	36	32	26	27
Flexible Scheduling	40	38	37	49	23	14
Heterogeneous Instructional Grouping	38	39	44	48	18	14
Instructional Delivery	67	73	19	14	14	13
Instructional Grouping	57	64	29	25	13	11
Intramural Sports Programs	18	20	69	71	14	9
Professional Development for	77	80	18	13	5	7
Remediation Practices	81	82	18	13	1	5
School Climate	57	57	22	20	22	24
Teacher Planning Time	54	51	37	35	10	15
Teaming	52	55	43	34	5	11

Note: R: 2009 Randomly Selected Middle School Survey

Flexible scheduling and grouping, 41% and 22%;

Educators who value working with young adolescents, 77% and 53%;

Inviting, supportive, and safe environments, 86% and 65%;

Teachers and students engaged in active learning, 61% and 42%;

Curriculum that is challenging, integrative and exploratory, 60% and 40%;

Multiple teaching and learning approaches, 54% and 31%;

Trusting and respective relationships among administrators, teachers, and parents, 70% and 46%;

Evidence-based decision making, 52% and 32%;

A shared vision of mission and goals, 61% and 42%; and,

Assessment and evaluation programs that promote quality learning, 50% and 35%.

There is much to be learned from highly successful schools about working hard to fully implement middle level components that are highly valued. This is never a simple task to accomplish, but successful implementation of crucial middle level components is too important to be avoided or left to chance. All schools that include young adolescents can benefit from lessons that can be learned from authentic implementation of the middle school philosophy and concept.

TABLE 46

**Percent of Availability of Selected Technology to Students:
2009 HSMS Study and 2009 Random Study**

Technology Access by Students	2009 HSMS Study	2009 Random Study
	Percent	Percent
Word Processing	93	99
Integrated Learning Systems	26	30
Spreadsheets	81	77
Games	76	82
Special application for subjects (e.g., math, reading)	76	79
Internet	88	95
Presentation Software	85	91
CD ROMS/Encyclopedias	70	73
Graphing Calculators	81	77
Probes for Data Acquisition	38	34
Desktop Publishing and Design Software	74	73
Webcams	21	16
Computers	86	88
Video/Data Projection	68	56
Video Editing Software	54	37
Visual Presenters	41	32
Personal Digital Assistants	6	4
Social Networking	3	2
Other	11	3

TABLE 47
**Percent of Selected Technologies Incorporated into Instruction:
2009 HSMS Study and 2009 Random Study**

Type of Technology	2009 HSMS Study	2009 Random Study
	Percent	Percent
Online Research/Projects	85	82
Technology to Improve Student Assessment	70	58
Assistive/Adaptive Devices for Special Needs Students	68	66
Computer Projection Devices	90	96
Digital Cameras	85	87
HDTV Technology	9	8
Printers	90	96
Scanners	76	71
Smartboards	67	78
Television	78	82
Television Production	45	29
DVD Players	91	95
VCR Players	77	80
Amplified Audio System	43	37
Video Conferencing	24	22
Graphing Calculators	78	76
i-Pods	20	12
Flex Cam	16	18
Student Email	41	27
Online Learning Environment	27	24
Cell Phones	12	8
Personal Digital Assistants	7	6
Other	10	4

TABLE 48

**Percent of Levels of Agreement with Statements about Professional Development for Technology:
2009 HSMS Study and 2009 Random Study**

Statements on Professional Development for Technology	Strongly Agree		Agree		Disagree		Strongly Disagree	
	HSMS	R	HSMS	R	HSMS	R	HSMS	R
Teachers at my school receive adequate professional development in the use of new and emerging technologies.	24	21	54	54	21	22	1	2
Adequate technical support is provided for teachers at my school.	30	27	54	56	14	15	2	2
Teachers at my school receive adequate multi-media training.	20	15	48	52	31	31	1	2

R: 2009 Randomly Selected Middle Schools

TABLE 49

**Percent of Use of Selected Technologies as Professional Development Resources for Teachers:
2009 HSMS Study and 2009 Random Study**

Professional Development Resources	2009 HSMS Study	2009 Random Study
	Percent	Percent
Technology to Collaborate with other educators on line	70	69
Online Courses/Workshops	55	54
Professional Electronic Portfolios	5	10
Technology to Enhance Productivity	73	69
Personal Digital Assistants	4	5
Computers	90	90
Teacher Web Pages	79	74
Other	11	7

TABLE 50

**Percent of Schools Where Core Teachers Have Some Level of Specialized
Middle Level Professional Preparation:
2009 HSMS Study and 2009 Random Study**

Percent	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-10	10	9
11-20	6	6
21-30	3	5
31-40	3	5
41-50	4	5
51-60	12	5
61-70	9	7
71-80	6	14
81-90	9	10
91-100	37	34
Total	99	100

TABLE 51

**Percent of Core Teachers with Specialized Separate Middle Level Teacher License:
2009 HSMS Study and 2009 Random Study**

Percent	2009 HSMS Study	2009 Random Study
	Percent	Percent
1-10	27	31
11-20	10	13
21-30	9	11
31-40	3	7
41-50	2	10
51-60	8	6
61-70	6	6
71-80	8	6
81-90	10	5
91-100	17	6
Total	100	101

TABLE 52

**Percent of Level of Importance of and Level of Implementation of Middle Level Components:
2009 HSMS Study**

Component	Level of Importance				Level of Implementation			
	VI	I	U	VU	HI	I	LI	NI
Advisory Programs	42	49	7	1	26	30	24	20
Interdisciplinary Team Organization	81	17	2	0	71	17	7	5
Flexible Scheduling and Grouping	71	25	2	1	41	42	13	5
Strong Focus on Basic Subjects	88	12	0	0	87	13	0	0
Educators Who Value Working with Young Adolescents	99	1	0	0	77	20	2	0
Inviting, Supportive, Safe Environments	99	1	0	0	86	13	1	0
Teachers and Students Engaged in Active Learning	100	0	0	0	61	37	1	0
School Initiated School and Community Partnerships	64	36	0	0	19	63	18	0
Curriculum that is Challenging, Integrative, and Exploratory	94	6	0	0	60	34	6	0
Multiple Teaching and Learning Approaches	93	7	0	0	54	38	8	0
Schoolwide Efforts to Foster Health, Wellness, and Safety	74	26	0	0	49	40	11	0
Teachers with Middle School/Level Teacher Certification/Licensure	30	56	13	1	31	31	26	12
Trusting and Respective Relationships Among Administrators, Teachers, and Parents	92	8	0	0	70	30	0	0
Evidence-Based Decision Making	88	11	1	0	52	41	6	1
A Shared Vision of Mission and Goals	85	15	0	0	61	37	1	0
Assessment and Evaluation Programs that Promote Quality Learning	87	13	0	0	50	45	5	0

Note: VI: Very Important; I: Important; U: Unimportant; VU: Very unimportant; HI: Highly Implemented; I:
Implemented; LI: Limited Implementation; NI: Not Implemented

TABLE 53

**Percent of Levels of Implementation of Middle Level Components:
2009 HSMS Study and 2009 Random Study**

Component	Level of Implementation in HSMS				Level of Implementation in Randomly Selected Schools			
	HI	I	LI	NI	HI	I	LI	NI
Advisory Programs	26	30	24	20	17	29	24	29
Interdisciplinary Team Organization	71	17	7	5	45	27	19	9
Flexible Scheduling and Grouping	41	42	13	5	22	33	33	13
Strong Focus on Basic Subjects	87	13	0	0	73	25	2	0
Educators Who Value Working with Young Adolescents	77	20	2	0	53	44	3	0
Inviting, Supportive, Safe Environments	86	13	1	0	65	33	3	0
Teachers and Students Engaged in Active Learning	61	37	1	0	42	49	9	0
School Initiated School and Community Partnerships	19	63	18	0	19	46	34	2
Curriculum that is Challenging, Integrative, and Exploratory	60	34	6	0	40	52	8	0
Multiple Teaching and Learning Approaches	54	38	8	0	31	57	11	0
Schoolwide Efforts to Foster Health, Wellness, and Safety	49	40	11	0	35	51	14	0
Teachers with Middle School/Level Teacher Certification/Licensure	31	31	26	12	27	36	27	10
Trusting and Respective Relationships Among Administrators, Teachers, and Parents	70	30	0	0	46	48	6	0
Evidence-Based Decision Making	52	41	6	1	32	57	11	0
A Shared Vision of Mission and Goals	61	37	1	0	42	52	6	0
Assessment and Evaluation Programs that Promote Quality Learning	50	45	5	0	35	52	13	0

Note: HI: Highly Implemented; I: Implemented; LI: Limited Implementation; NI: Not Implemented

Conclusions and Recommendations

A major purpose for conducting the two 2009 national surveys was to gain perspectives on the status of programs and practices that are considered to be crucial to effective middle level schooling. This section includes some selected observations and conclusions based on results from the 2009 national survey of 827 randomly selected public middle schools (Section II) and the 2009 national survey of 101 highly successful middle schools (Section III). Data from the survey of randomly selected schools were compared with data from four earlier linked surveys. These surveys were conducted in 1968 (Alexander), 1988 (Alexander & McEwin, 1989), 1993 and 2001 (McEwin, Dickinson & Jenkins, 1996, 2003). Data from the 2009 randomly selected middle schools were also compared with results from the 2009 survey of programs and practices in highly successful middle schools (HSMS). The HSMS survey was conducted primarily to determine the extent to which these nationally recognized schools were using recommended middle level programs and practices and to explore what lessons could be learned from these schools. Detailed information about the design of these studies is provided in Sections II and III.

Recommendations for future actions are provided in this section of the report. Some of the results and recommendations provided here are also included in a *Middle School Journal* article published in 2010 (McEwin & Greene). Since the focus of this section is on selected topics included in the surveys, readers are encouraged to explore data from the earlier sections of the report to gain a more comprehensive understanding of results.

Interdisciplinary Team Organization and Common Teacher Planning Time

One of the most disappointing findings that emerged was a decrease in the use of interdisciplinary team organization among middle schools in the randomly selected middle school survey. The percentage of middle schools utilizing this organizational plan had decreased from 77% in the 2001 survey to 72% in the 2009. This reversed a trend of ever increasing percentages of middle schools adopting this organizational plan beginning with the Alexander survey that was completed in 1968. This trend does not bode well for middle level schools or the young adolescents that attend them since this model is so widely recommended and effective (Arhar, 1990, 1992; Flowers, Mertens, & Mulhall, 1999, 2000; NMSA, 2010a, 2010b). This troubling trend may be the result, at least in part, to the pressures of the No Child Left Behind and high stakes testing requirements imposed by the individual states (Musoleno & White, 2010). It seems that some decision-makers are under the false assumption that eliminating teaming will increase test scores when quite the opposite is much more likely to occur.

Common planning time for teachers on interdisciplinary teams enables them to plan curriculum and instruction and work together in other important ways to increase student learning. There was some increase in the 2009 random study, as compared with data from the earlier surveys, in the percent of middle schools providing five common planning periods per week for core teachers. However, this increase was due, at least in part, to the percent of schools that no longer provided ten common planning periods per week. The trend of offering five rather than ten common planning times for core teachers was disconcerting

since the research base and successful practice support the importance of this organizational feature (Mertens & Flowers, 2006; Mertens, Flowers, Anfara, & Caskey, 2010; Mertens, Flowers, & Mulhall, 1998; NMSA, 2010a; Warren & Muth, 1995).

Results from the HSMS survey showed that interdisciplinary team organization is more highly valued and more frequently implemented in HSMS than in schools responding to the 2009 randomly selected school survey. Ninety percent of the HSMS reported using the interdisciplinary team organization model as compared to only 72% of the randomly selected middle schools. The HSMS also more frequently provided common planning time for core teachers. For example, 40% of HSMS provided ten common planning periods per week as compared to 28% of middle schools in the random sample. Ninety-four percent of HSMS and 77% of randomly selected middle schools provided five or more common planning periods for core teachers.

> ## Recommendation
> *Interdisciplinary team organization should be implemented in the middle grades of all schools that include young adolescents. All teachers serving on teams should be provided at least one daily common planning period.*

Scheduling Plans

Flexible block scheduling is closely linked to the successful implementation of interdisciplinary teaming and common planning time for teachers and has long been a recommended practice in middle school education (Daniel, 2007). Flexible schedules (e.g., block scheduling, alternate day classes) provide longer instructional times, avoid fragmented instruction, allow for more creative and flexible use of time by teachers, provide varying learning times for students, and increase student engagement and achievement (Arhar, 1992; Canady, 1996; Spear, 1992; George & Alexander, 2003).

The use of the flexible block schedules had decreased in schools in the 2009 random sample as compared with the earlier studies. In the 2009 random study, respondents were asked to select the one choice that best reflected their schedule type. In the four earlier studies, respondents could check multiple choices of different schedule types. Therefore, the 2009 data are not totally comparable. Given these limitations, it is difficult to determine trends among the studies. However, when results from the two 2009 surveys were compared, 30% of HSMS utilized flexible block schedules as compared to only 14% of schools from the randomly selected sample. HSMS were also much less likely to utilize daily uniform periods (45%) than were schools in the randomly selected middle school sample (72%). HSMS also used daily periods of varying lengths (30%) more often than the randomly selected middle schools (14%).

> ## Recommendation
> *All schools with middle level students should adopt some form of flexible scheduling. The highest priorities of the schedule should be providing blocks of instructional time and daily common planning times for teams of core teachers.*

Curriculum

The core subjects of language arts, mathematics, science, social studies remain a high priority in middle schools in both the HSMS and randomly selected middle school surveys. The time allotted daily for instruction in these core subjects is substantial. In the 2009 randomly selected middle schools, the average number of minutes allotted daily at the sixth grade level was 226 minutes and 219 minutes at the seventh and eighth grade levels. HSMS allotted more time for core subjects at the sixth (240 minutes), seventh (234 minutes), and eighth (233 minutes) grade levels. As revealed earlier in this report, required subjects, other than core subjects, most often included courses such as art, general music, and reading. Although there were some differences found between results from the two 2009 studies, in most cases the percentages of schools requiring non-core course revealed few differences.

Similar patterns for the elective subjects offered were comparable in both 2009 studies. Band, chorus, art, and orchestra, computers, and general music were popular electives at all grade levels. Band was offered somewhat more frequently at HSMS, but few other differences were found. Larger percentages of HSMS (49%) than randomly selected middle schools (39%) offered interest/mini-courses to enrich their curriculum. HSMS reported placing a stronger emphasis on global curriculum than schools in the 2009 randomly selected middle school survey. This included, but was not limited to, critical thinking and problem solving, collaboration, and science.

> ### Recommendation
> *All schools that serve young adolescents should place a major emphasis on the core subjects of language arts/reading, science, mathematics, and social studies. Significant portions of each instructional day should be devoted to these subjects while ensuring other developmentally appropriate experiences are included. A rich selection of required non-core and elective subjects should be part of the curriculum. A focus on the components of global education should be infused throughout the curriculum.*

Advisory Programs

The importance of advisory programs has long been recognized in the junior high school and middle school literature (Alexander, 1968; Briggs, 1920; Carnegie Council on Adolescent Development, 1989; George & Alexander, 2003; Gruhn & Douglas, 1956; Powell, 2011; Van Til, Lounsbury & Vars, 1961). Results from both 2009 studies revealed that they are far from being universally implemented in the nation's middle schools. Fifty-three percent of schools in the randomly selected middle school sample and 65% of HSMS reported having advisory programs. HSMS allotted larger amounts of time for advisory periods. Although the percentage of schools in the 2009 randomly selected middle sample with advisory programs had increased from 48% in 2001 to 53% in 2009, almost one-half of middle schools in the nation still do not have advisory programs. Successful advisory programs are difficult to

implement and maintain for many reasons (Anfara, 2006). However, because of the importance of these programs, steps need to be taken promptly to implement these programs in all schools enrolling young adolescents.

> ### Recommendation
> *Carefully planned student advisory programs should be a high priority component of all middle level programs and schools. Advisory groups should meet at least twice per week, and the advisory curriculum should be carefully planned, articulated, implemented, and evaluated. All teacher advisors and other professional personnel should be provided ongoing professional development regarding effective advisory programs and be held responsible for their success.*

Teaching Strategies

Respondents from both 2009 surveys were asked the extent to which selected teaching strategies were rarely or never, occasionally, or regularly used in their schools. The percentage of schools in the 2009 randomly selected middle schools sample using direct instruction on a regular basis decreased from 90% in 1993 to 81% in 2009, while the use of cooperative learning, inquiry, and independent study increased. Fifteen percent of schools reported the use of online instruction on a regular basis and 54% indicated occasional use.

Schools in the HSMS sample were less likely to use direct instruction on a regular basis (71%) than schools in the 2009 random study, and they more regularly used cooperative learning, inquiry teaching, independent study, and online learning on a regular basis. The difference found between the use of cooperative learning in HSMS (85%) and schools in the random sample (64%) was especially noteworthy. While the trend toward more frequent use of student-centered strategies is encouraging (i.e., cooperative learning and inquiry teaching), an overreliance on teacher-centered direct instruction remains in the nation's middle schools.

Recommendation

Effective research-based instruction in core and non-core subjects should be a top priority in all middle level schools. The developmental learning characteristics of young adolescents should serve as a basis for selecting instructional strategies. Efforts to move away from over-reliance on whole-class instructional strategies should be initiated, with more emphasis being placed on cooperative learning, inquiry learning, and other strategies for involving young adolescents in their own learning.

Instructional Grouping Practices

Data from both 2009 studies revealed discouraging trends in instructional grouping practices. The number of schools in the 2009 random study using random instructional grouping has declined 9% since 1993, documenting a move away from heterogeneous grouping in middle schools. An identical 23% of schools in both 2009 studies reported that instructional grouping was random at their schools. Trends clearly show that ability grouping is increasing in middle schools despite serious concerns that this practice may benefit high achievers but negatively affect low achievers (Carnegie Council on Adolescent Development, 1989; National Forum to Accelerate Middle Grades Reform, 2001; NMSA, 2007b; Pool & Page, 1995; Slavin, 1990; Wheelock, 1992).

Recommendation

Schools should carefully select instructional grouping plans and be careful to avoid an over-reliance on tracking. Middle level educators should "work deliberately to reduce disparities in educational attainment by adopting open and fair student assignment practices. When students are grouped and regrouped for instruction, the assignment should be temporary and based on diagnosed needs, interests, and talents of students, not on a single achievement test" (National Forum to Accelerate Middle-Grades Reform, 2001, p. 1).

Professional Preparation and Certification/Licensure

A major roadblock to the full success of junior high schools and middle level schools has been the practice of employing teachers who lack specific professional preparation to teach young adolescents. Historically, middle level classrooms have been staffed with teachers who were prepared to teach students at other developmental stages and levels of schooling (e.g., young children in elementary schools, older adolescents in senior high schools). Furthermore, many states lack effective certification/licensure regulations to ensure teachers are specially prepared for the middle grades. Some states do not require middle level teachers to hold separate middle level teaching certification/licensure, and four states do not have any form of middle level license/certification (Gaskill, 2007). In some states, middle level teacher licensure is granted to anyone who has completed a senior high or secondary school professional preparation program. In some other states, middle level teacher licensure can be obtained by simply having an undergraduate degree in some area and passing a standardized test. Significant progress has been made in recent years in the areas of specialized middle level teacher preparation and distinct middle level licensure regulations (McEwin, Dickinson & Smith, 2003, 2004; McEwin & Smith, in press). However, many thousands of middle level teachers still begin their careers without the specialized knowledge, skills, and dispositions needed to be highly successful teaching young adolescents.

Respondents provided information about the percentage of core teachers with some level of specialized professional preparation to teach at the middle level. In approximately one third of schools in both the random and HSMS 2009 surveys, more than 90% of core teachers had some level of specialized middle level professional preparation. However, the survey instrument did not define the nature of this preparation. Higher percentages of teachers in HSMS held separate middle level certification/licensure as compared to schools in the random study. Forty-nine percent of HSMS reported that the majority of core teachers (51% or more) held distinctive middle level licensure, while only 29% of

schools in the random sample had this percentage. Twenty-seven percent of HSMS had 81% or more core teachers with middle level certification, compared to only 11% in the random sample schools.

Recommendation

Middle level educators should work collaboratively with policymakers, teacher preparation representatives, state department of education officials, professional practice board members, and other stakeholders to create specialized middle level teacher preparation programs and mandatory middle level teacher licensure requirements where they do not exist and to strengthen them where they are already available. Whenever possible, personnel directors and principals should employ teachers who have received specialized middle level professional preparation and hold middle level teacher certification/licensure. Comprehensive and ongoing professional development should provide teachers and other school personnel with a knowledge base that focuses on young adolescent development, middle level curriculum, middle level instruction and assessment, effective middle level programs and practices, and other key topics. Middle level educators should support and promote specialized middle level professional preparation as well as specific middle level teacher certification.

The Status of Middle Level Programs and Practices

Middle Level Programs and Practices: 2001 to 2009

When the current status of middle school programs and practices as revealed in the 2009 random study is contrasted with those found in the 2001 study, results are mixed. While gains have been made in some areas, the tenets of middle level education remain far from being universally implemented. Some comparative statistics from the 2001 and 2009 surveys of middle school are provided below. These data help make it clear where progress has been made and point out areas that need immediate attention and action on the part of all those responsible for the education of young adolescents. Readers should read *Section II Results from the Survey of Randomly Selected Middle Schools* for a more detailed description of results. The first percentage in each statement below represents data from the 2001 survey of randomly selected middle schools and the second percentage represents data from the 2009 survey of randomly selected middle schools.

- The number of public middle schools with the most common grade organization patterns of 5-8, 6-8, and 7-8 increased (12,377 vs. 13,918);

- The percentage of middle level schools utilizing interdisciplinary team organization decreased (77% vs. 72%);

- The percentage of middle schools providing ten common planning periods per week for core teachers decreased (41% vs. 28%);

- The percentage of middle schools providing no common planning periods for core teachers increased (5% vs. 8%);

- The percentage of middle schools using flexible block schedules decreased (23% vs. 14%)

- The average number of minutes allotted daily to core subjects increased slightly in some subjects (e.g., sixth grade language arts, 67 vs. 70 minutes);

- Higher percentages of middle schools required non-core courses such as physical education, health education, and reading at all grade levels;

- The percentage of middle schools offering the most popular electives increased (e.g., sixth grade band, 82% vs. 97%; seventh grade chorus, 70% vs. 78%; eighth grade art 47% v. 63%);

- The percentage of middle schools offering orchestra decreased significantly at the seventh and eighth grade levels (72% vs. 39%);

- The percentage of middle schools with interest/mini-course programs decreased (49% vs. 39%);

- The percentage of middle schools with advisory programs increased (48% vs. 53%);

- The percentage of middle schools using cooperative learning on a regular basis increased (60% vs. 64%);

- The percentage of middle schools using direct instruction on a regular basis decreased (88% vs. 81%);

- The percentage of middle schools using random (non-tracked) instructional grouping remained about the same (22% vs. 23%);

- The percentage of middle schools tracking in mathematics increased (73% vs. 77%);

- The percentage of middle schools providing before and after school tutoring remained the same (84%); and,

- With the exception of summer school for remediation (67% vs. 59%), the use of remediation plans increased (extra period instead of elective, 48% vs. 63%; pull out language arts, 45% vs. 54%; pull out mathematics, 42% vs. 50%).

Lessons Learned from Highly Successful Middle Schools

The researchers conducted the survey of highly successful middle schools to help determine what kinds of programs and practices were dominant in these schools. Were these schools following the middle school philosophy or had they moved in other directions? Are there lessons that can be learned

from these middle schools that have been nationally recognized for their successes?

Portions of the following also appeared in the *Middle School Journal* (McEwin & Greene, 2010). One major lesson that can be learned from the 101 HSMS is that the middle school concept as originally proposed by Alexander in 1963 remains valid (1968) and supported in the middle school literature (NASSP, 2006; NMSA, 2010a, 2010b). As documented in the survey results, HSMS tend to embrace programs and practices associated with developmentally responsive schools—the middle school concept. The HSMS study also suggests that leadership is a key factor. The overwhelming majority of the highly successful, nationally recognized schools have principals who strongly support components of the middle school concept and implement recommended middle level programs and practices in their schools at higher rates than are found in the general population of public middle schools in the nation. The listing below includes selected findings among data from the two 2009 surveys. Compared to middle schools in the randomly selected sample, HSMS:

- More frequently used interdisciplinary team organization (90% vs. 72%);

- More frequently provided core teachers with ten common planning periods per week (40% vs. 28%);

- More often used the flexible block scheduling plan (30% vs. 14%);

- Less frequently organized school schedules using daily uniform periods (45% vs. 72%);

- Allotted more daily instructional time to core subjects of language arts, mathematics, science, and social studies at the sixth, seventh, and eighth grades levels (sixth grade, 240 vs. 226; seventh grade, 234 vs. 219; eighth grade, 233 vs. 219);

- More frequently offered interest course/mini-course programs (49% vs. 39%);

- Used direct instruction less frequently (71% vs. 81%);

- Used cooperative learning more often (85% vs. 64%);

- Used inquiry teaching more frequently (57% vs. 43%);

- Had higher percentages of core teachers holding separate middle level teacher licensure (Table 51);

- More frequently had advisory programs (65% vs. 54%);

- Offered daily advisory periods less often (44% vs. 54%);

- Had larger student enrollments (Table 28);

- Had a smaller percentage of schools where 51% or more students qualified for the free or reduced lunch (27% vs. 36%);

- Had a higher percentage of students—51% or higher—on or above grade level) in mathematics (94% vs. 82%);

- Had a higher percentage of students—81% or higher—on or above grade level in mathematics (53% vs. 30%);

- Had a higher percentage of students—51% or higher—on or above grade level in reading (98% vs. 86%);

- Had a higher percentage of students—81% or higher—on or above grade level in reading (45% vs. 39%);

- Placed a stronger emphasis on global education elements (Table 36);

- More frequently offered intramural sports programs (65% vs. 55%);

- Used ability/tracking somewhat more frequently in most core subjects (Table 42);

- More strongly supported the components of middle level schools as recommended in the middle school literature (Tables 23 and 52); and,

- More highly implemented the components of middle level schools as recommended in the middle school literature (Table 53).

Advice from Highly Successful Middle School Leaders

Respondents from HSMS were asked to provide advice for middle level schools striving to be more successful. Seventy-eight of the 101 principals responded to this open-ended survey item. A number of comments centered on the importance of recruiting and maintaining teachers who want to teach young adolescents and have the specialized knowledge, skills, and dispositions to be effective. Many comments emphasized fully implementing teaming, common planning time for core teachers, and flexible scheduling. Other responses stressed the importance being committed to a vision and always making decisions based on what is best for young adolescents. Some representative comments from respondents include those presented below.

- *Develop the vision and mission for the school and grow a climate of respect and trust among the adults and students. Never stray from your goals, and if you do, get back on track.*

- *Follow the tenets of NMSA's This We Believe, NASSP's Breaking Ranks in the Middle, and the National Forum's School-to-Watch criteria.*

- *Be responsive to the middle school philosophy, build collaborative teams, and use best practices and research to guide decisions.*

- *Support new teacher ideas and innovations; focus on individual student successes and practices.*

- *Create a culture on campus that promotes the values you are trying to establish. This includes students, staff, administration, and parents.*

- *I would advise principals to grow professionally and support the professional growth of all teachers and staff members.*

- *Accept responsibility and stop blaming (parents, the economy).*

- *Teacher-student advisement is crucial to building close relationships with students. Students need to know teachers care about them as people first and foremost. They also need someone they can turn to in times of need or in times of success.*

- *Constantly process and try to adjust to every changing variable. Things get better or worse; they do not stay the same.*

- *Develop trust. Work with your staff as a member of their team. Collaborate. Get students involved in decision making. Do not let testing drive your school. Know what your students need to be globally competitive and offer them experiences that will get them there. Make school fun for both students and teachers.*

- *Visit other schools that have received awards or distinctions to observe and discuss.*

- *Common prep time for teams is extremely important for success.*

- *The number one factor is teamwork and creating a collaborative environment in which teachers work together to design and implement instruction, discuss student needs, and analyze performance data. It cannot be done alone!*

- *Have a sense of humor and have fun.*

- *Communicate among yourselves—within the school. Visit excellent schools and provide opportunities for you staff to do so. Constantly process and adjust to ever changing variables. Things get better or worse—they do not stay the same. I believe this statement and live by it. Schools need to constantly review and amend what they do and how they do it.*

- *Know and understand the unique characteristics of middle level kids. Develop structures and policies that support collaboration and kid-centered education.*

- *Let the social and emotional needs of students frame your work.*

- *Find ways to make all students feel successful. Think outside the box when it comes to student needs. Always ask yourself if what you are doing is best for students.*

- *To be successful you have to focus on problem solving and building a positive community culture.*

- *Keep the developmental needs of students at the forefront when planning your program and the daily operations of your school. You are there for each and every individual student, and you should strive for a year of growth for each year a student spends at your school.*

- *Love and enjoy your students.*

Principals from HSMS also provided a list of pitfalls schools should avoid as they strive to become ever more successful. They included:

- *Partial implementation of effective middle level programs and practices.*

- *Lack of ongoing, comprehensive professional development targeting specific middle level topics.*

- *Acceptance of the status quo and/or traditional popular practices that are not effective at the middle level.*

- *Giving in to the pressures associated with standardized tests to the extent that other important programs and practices suffer.*

- *Not understanding the need to continually advocate for developmentally responsive middle level education.*

- *Not using the middle level knowledge and research base when making decisions.*

- *Not holding all professionals accountable for their roles in developmentally responsive schooling.*

- *Not working to create a vision that includes a commitment to always doing what is best for young adolescents rather than what is most comfortable and familiar for adults.*

Learning from principals of highly successful schools seems wise as middle level programs and schools seek to become ever more successful. One trend the researchers noticed continuously as they read the open-ended comments made by respondents was that although they were proud of the accomplishments of their schools, they were always seeking new and better ways to educate young adolescents. As was recommended by Alexander, the leaders at these schools believe that middle level schools should be *ever emergent* as they adjust to meet the changing needs of young adolescents and the world in which they live.

Implementing Highly Successful Developmentally Responsive Middle Level Schools

Results from the 2009 surveys and contemporary middle level literature lead to the overall conclusion that although there is much to celebrate, even more remains to be accomplished if authentic developmentally responsive middle level programs and schools are to become a reality for all young adolescents (George, 2009a, 2009b; Lounsbury, 2009). All stakeholders need to intensify their efforts to overcome the complex challenges associated with authentic middle level school reform and work persistently and collaboratively to implement key middle level programs and practices. Otherwise, middle level schools may slip further back into the mistakes made in the first reform movement to create developmentally responsive schools for young adolescents—the junior high school movement. The rationale for developmentally responsive junior high schools had much in common with the current rationale for developmentally responsive middle level schools. One of the problems with junior high schools was that so many of them became junior versions of the senior high school. This same fate may befall contemporary middle level schools if more progress is not made in authentically implementing what is known to be effective middle level programs and practices. Results from the 2009 study of randomly selected middle schools indicate this is already beginning to happen in some middle schools (e.g., decrease in the percentage of schools with interdisciplinary team organization and reduced common planning time provided).

The middle level research base has expanded, and growing numbers of successful, developmentally responsive middle schools are being identified through recognition programs such as those sponsored by the National Forum to Accelerate Middle Grades Reform (Schools-to-Watch) and the National Association for Secondary School Principals (NASSP Breakthrough Middle Schools). HSMS are providing models for reaching high levels of success, as demonstrated by data from the 2009 survey. To establish and maintain highly successful middle schools, middle level leaders must avoid a recurring mistake—blindly following tradition and staying with what is comfortable and noncontroversial rather than pushing forward with courage and purpose to ensure that all schools serve young adolescents effectively. There are many more highly successful middle schools than are currently formally recognized. These successful schools should be sought out and learned from so that ideas and programs can be adopted and adapted in ways that will enhance all aspects of student learning.

Concluding Remarks

Much has been accomplished with respect to creating and maintaining developmentally responsive middle schools. The middle school concept and philosophy has persevered despite many barriers encountered along the way (e. g., negative political climates; devotion of many decision-makers, the public, and educators to traditional programs and practices; overreliance on standardized test results in defining success). Results from earlier and current studies reveal, however, that many middle schools have failed to fully and authentically implement developmentally responsive programs and practices. This reality has resulted in rather vocal criticism of middle schools and the middle school concept. However, the problem does not lie in a lack of knowledge about the components needed, but rather in the failure to implement these features in ways that benefit all young adolescents. There are multiple reasons that could be provided to help explain this situation (e.g., misdirected actions based on pressures from high stakes testing; a lack of understanding on the part of many middle level educators about the tenets of effective middle level education).

Fidelity to the underlining principles of the middle school philosophy and concept is found wanting in too many of today's middle schools. Lounsbury (2009) confirms that the problem often lies in the lack of authentic implementation. He observes that "The true middle school concept . . . has not been practiced and found wanting; rather, it has been found difficult to implement fully, and is practiced, then, only partially" (p. 31). This lack of implementation of middle level programs and practices also manifests itself in schools with other names and grade configurations that include young adolescents, for example grades K-8 schools (Epstein

& MacIver, 1990; McEwin & Alexander, 1990; McEwin, Dickinson, & Jacobson, 2004; McEwin & Greene, 2011). It is young adolescents and those who teach them and serve them in other ways that are paying the price for this failure to fully implement developmentally responsive middle level program and practices.

One trap that must be avoided is defining effective middle schools as ones that have programs, practices, and policies that can be simply "checked off a list" without full implementation. The misuse of middle level programs and practices at some middle schools does not negate their importance nor provide a valid excuse for non-implementation. Being satisfied with the status quo is neither acceptable nor productive and can lead to what Dickinson (2001) termed *arrested development*—the failure of schools to move forward from the levels of implementation already accomplished. This situation, in turn, can result in complacency and a lack of forward movement toward excellence. Without substantial reform, many young adolescents will have to spend their formative middle school years in schools that would better serve other developmental age groups at other levels of schooling (e.g., older adolescents in senior high schools).

Results from the two 2009 studies that are the focus of this report confirm that recommended middle level programs and practices can be effectively implemented and that when this occurs, results are positive and encouraging. A key finding from the 2009 surveys was that there was strong support among middle level principals regarding the importance of the programs and practices associated with the developmentally responsive middle school model. However, genuine implementation is clearly an area in need of much emphasis and one that requires collaborative and courageous action by all stakeholders. Results from the highly successful middle school survey, in particular, help document and lend credibility to the reality that middle schools can implement effective programs without abandoning developmental responsiveness as a guiding principle. Principals and other leaders at HSMS have chosen not to go back to traditional, deeply ingrained programs and practices more appropriate for students enrolled in senior high

schools or universities thinking this will increase student learning and raise standardized tests scores (e.g., departmentalization, no interdisciplinary teaming or common planning time for core teachers, rigid scheduling plans). Paradoxically, these more traditional and inappropriate programs and practices are the same ones that have been recognized as largely ineffective at the senior high school level. Many of the practices advocated in contemporary high school reform are those that in the past have been considered major components of middle school reform. For example, there are many similarities in recommendations found in *Breaking Ranks II: Strategies for Leading High School Reform* (NASSP, 2004), *Breaking Ranks in the Middle: Strategies for Leading Middle Level Reform* (NASSP, 2006) and *This We Believe: Keys to the Education of Young Adolescents* (NMSA 2010b).

The most important finding of the 2009 surveys is that the middle school concept and philosophy remain legitimate. The survey of highly successful middle schools showed that those schools are following the middle school concept with more commitment than are other schools that have not been recognized for their high levels of success (e.g., standardized tests scores, developmental responsive programs and practices). These time-honored, effective middle level programs and practices—frequently identified as the middle school concept—must be top priorities if full success is ever to be achieved.

The need to work collaboratively to fully implement recommended middle level developmentally responsive programs and practices (NMSA, 2010b; NASSP, 2006) is more urgent than ever in the changing world faced by young adolescents. Without authentic and sustained implementation, the middle school is in danger of being simply another organizational plan for housing the middle grades rather than being a specialized school that represents the philosophical and programmatic expression of an educational ideal—an ideal that recognizes the uniqueness and extraordinary talents and potential of young adolescents. When developmentally responsive programs and practices are in place, middle level teachers and other middle level educators can focus intently on achieving the key

goals of middle level education (e.g., increasing student learning; enhancing healthy development; helping produce productive citizens; achieving the goals of middle level education and American education in general). The possibilities for success at the middle level are promising, but only if each one of us commits our efforts to provide the young adolescents of our nation the quality of middle level education they need and deserve. The stakes are too high to allow for inaction on the part of all those responsible for the education and care of young adolescents.

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Figures

Tables

The Association for Middle Level Education

Since its inception in 1973, the Association for Middle Level Education (AMLE), formerly National Middle School Association, has been a voice for those committed to the educational and developmental needs of young adolescents, kids ages 10 to 15. NMSA has been a key resource to middle grades educators looking to develop more effective schools.

Our message is for schools to be academically excellent, developmentally responsive, and socially equitable for every young adolescent. NMSA members are principals, teachers, school district personnel, professors, college students, parents, community leaders, and educational consultants across the United States, Canada, and 46 other countries.

We welcome and provide support to anyone interested in the health and education of young adolescents. Our network of 58 affiliate organizations in the United States, Canada, Europe, and Australia strengthens our outreach to the regional, state, provincial, and local levels.

AMLE provides professional development, journals, books, research, and other valuable information to assist educators on an ongoing basis. Our annual conference is one of the largest professional development events in education today. In addition to the highly acclaimed *Middle School Journal,* AMLE publishes *Middle Ground* magazine, *Research in Middle Level Education Online,* and hundreds of books on a variety of middle level education topics.

If you are interested in the education and well-being of young adolescents, we welcome you to join us.

Visit www.amle.org for more information.

About the Authors

Ken McEwin is professor of curriculum and instruction at Appalachian State University, Boone, North Carolina. He is a former sixth grade teacher and principal, and has extensive experience as a consultant. He is author of numerous professional publications and has served in leadership roles including president of the Association for Middle Level Education (AMLE), member of the Middle Level Leadership Task Force for the National Association of Secondary School Principals, and member of the National Forum to Accelerate Middle-Grades Reform. He is national program review coordinator for middle level teacher preparation programs that seek national recognition from the AMLE through the National Council for Accreditation of Teacher Education. Dr. McEwin is recipient of many awards including the AMLE John H. Lounsbury Distinguished Service Award and the North Carolina Middle School Association Distinguished Service Award.

Melanie W. Greene is professor of curriculum and instruction at Appalachian State University, Boone, North Carolina where she serves as coordinator of the Master of Arts in Curriculum Specialist program. She is a middle level education researcher and author of numerous professional publications focusing on middle level education. She has served in many middle level leadership roles including being sponsor and national advisor for the Appalachian State University Collegiate Middle Level Association. She is a member of the Association for Middle Level Education Board of Program Reviewers and the National Council for Accreditation of Teacher Education Board of Examiners. Dr. Greene is recipient of many awards including the North Carolina Board of Governors Award for Excellence in Teaching, the Appalachian State University Outstanding Teacher Award, and Appalachian State University Outstanding Service and Mentoring Award.

The first separately organized middle level schools, junior high schools, were organized in the early 1900s, which marked the beginning of American education moving from a two-tiered to a three-tiered structure—from elementary and senior high schools to elementary, middle level, and senior high schools. This movement, and the middle school movement that emerged in the 1960s, were developed for multiple reasons. One of the most important was to provide young adolescents with developmentally responsive learning environments by employing programs and practices that promote healthy development and maximize learning. This effort is often called the middle school concept or middle school philosophy. Although the move to establish middle level programs, practices, and schools has resulted in many significant accomplishments, a lingering problem found in many middle level schools and elementary schools that include the middle grades is the lack of authentic full implementation of the programs and practices recommended in the middle level literature and the middle level research base.

Several national surveys of middle level programs and practices have been conducted since the first middle schools were established. One of the surveys reported on in this publication is the fifth linked survey that began with a classic survey conducted by William M. Alexander in 1968.

In this latest survey, data from 827 random middle schools are provided along with a second survey that collected data from 101 of the most successful middle level schools in the nation to help identify successful programs and practices and to determine whether these schools were following the middle school concept. This research report, *The Status of Programs and Practices in America's Middle Schools: Results from Two National Studies*, was conducted by C. Kenneth McEwin and Melanie W. Greene in 2009.

The Status of Programs and Practices in America's Middle Schools: Results from Two National Studies provides evidence and includes a series of conclusions that some of the most successful middle schools in the nation are implementing programs and practices supported by the middle level knowledge base—the middle school concept. This report presents data representing past and current middle level programs and practices and includes lessons that can be learned from highly successful middle schools.

The Status of Programs and Practices in America's Middle Schools: Results from Two National Studies is available for free download at www.amle.org