

# **Middle Childhood Education: Policy Implications and Best Practices**

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# **MIDDLE CHILDHOOD EDUCATION: POLICY IMPLICATIONS AND BEST PRACTICES**

## **Introduction**

The development of middle childhood education and the middle school as we know it today can be traced to the early part of the 20th century. A number of variables and trends converged to produce a new way of organizing education. These factors included a need for more schools in response to increasing levels of immigration, an increase in the number of expected years of schooling beyond elementary school, developments from the field of psychology classifying adolescence as an identifiable life phase with unique educational requirements and high dropout rates as students transitioned to high school. The resulting concept of the junior high school caught on quickly, with the first such schools emerging around 1910. This number grew to some 900 by 1925 and to about 8,000 by 1970 (Heller, Calderon & Medrich, 2002).

The number of middle schools has continued to expand, with more than 14,500 middle schools in the United States in 2004. More than 9,000 of these schools consisted of grades six, seven and eight. In 2004-2005, 14 percent of Title I schools were middle schools. Those middle schools represented 37 percent of the Title I schools identified as needing improvement (Education Commission of the States, 2007).

Despite phenomenal growth and general acceptance as the norm for schooling throughout the country, the junior high school remained under scrutiny. Criticisms included a failure to develop a specific mission of its own, inadequate transition from elementary school to middle school and from middle school to high school and failure to effectively address the social and emotional issues facing early adolescents. Beginning in the 1960s, this alleged failure to address the developmental needs of early adolescents became one of the driving forces in the evolution of middle level schooling as it is known today (Heller, Calderon & Medrich, 2002).

With the founding of the National Middle School Association, or NMSA, in 1973, the middle grades reform movement had a forum through which policy and research agendas could be introduced and developed. Since that time, other organizations and agencies such as the Carnegie Corporation, the Edna McConnell Clark Foundation, the Southern Regional Education Board and the National Association of Secondary School Principals have become major players in the middle level reform movement (Heller, Calderon & Medrich, 2002). A significant event in the recent evolution of the middle level education concept was the establishment of the Carnegie Council on Adolescent Development by the Carnegie Corporation in 1986. One year later, the Council created a Task Force on the Education of Young Adolescents, which produced the 1989 groundbreaking report, *Turning Points: Preparing Youth for the 21st Century*.

This report encouraged states to become involved in improving education in the middle grades and to seek ways to improve capacity at the local level. One recommendation for developing this renewed capacity was through the creation of task forces at the state level to review the recommendations of the Task Force on Education of Young Adolescents and determine how best to adapt them for individual states (Carnegie Council on Adolescent Development, 1989).

### **Context for Reform at the Middle Level**

With the competing interests of elementary and secondary education and the lack of emphasis on middle grades under the No Child Left Behind Act, or NCLB, the interests and needs of middle level students have been neglected. More than half, or 57 percent, of the students tested annually under NCLB are in grades five through eight, yet only 15 percent of Title I funds are allocated to both middle and high schools. Other federal initiatives such as GEAR UP and TRIO receive between 10 and 20 percent of the eligible funds (National Middle School Association, 2006).

Effective middle level reform requires that districts and local schools work collaboratively and that accountability for reform outcomes flows in both directions. District leaders must support the vision and provide advocacy and resources while local schools assume responsibility and are held accountable for their own improvement plans. Effective district and school partnerships are committed to the belief that it is crucial for students to be successful in their first year of high school. Successful partnerships have a sustained commitment to comprehensive reform and resist the urge to move from one initiative to another without the necessary follow-through (Bottoms, Cooney & Timberlake, 2007).

The NMSA recently issued a policymaker's guide for establishing quality education programs for middle grades. The guide called on all levels of government, higher education institutions, unions, school boards and the business community to join a national effort to transform education at the middle level. The strategic goals of this transformation include ensuring that all middle level students have access to a standards-based curriculum that is accurately taught and assessed, providing support for the employment and retention of appropriately-trained teachers and administrators, supporting proper organizational structures and a culture of high expectations for all, establishing ongoing partnerships with families and communities and supporting the generation and utilization of research-based practices and programs (National Middle School Association, 2006).

The Southern Regional Education Board, or SREB, has been actively involved in middle level education reform for more than a decade. In response to data suggesting that students leaving middle school were not adequately prepared for high school, the SREB established the Making Middle Grades Work (MMGW) initiative in 1997. The initiative started with 26 schools in 13 states and the school improvement network now includes 284 schools in 21 states (Bottoms, Cooney & Timberlake, 2007).

The renewed interest in middle school reform is also evident at the federal level. In August 2007, *The Success in the Middle Act (HR 3406)* was introduced in the United States House of Representatives. The proposed legislation represents the first middle grades education initiative focused on addressing the needs of low-performing middle level schools. If approved and funded, the legislation would provide \$1 billion annually for states to use in supplying grants to local school districts so that they may address the needs of their low-performing middle schools (National Middle School Association, 2007).

Specific components of *The Success in the Middle Act (HR 3406)* would require the states receiving grants to develop and implement a plan for improving middle level student achievement. States and local school districts would also provide research-based professional development to school leaders, teachers and other school personnel, implement school-wide improvement initiatives in the lowest-performing middle level schools and implement student support systems such as coaching, personal graduation plans and extended learning time. The proposed legislation would also authorize an additional \$100 million to support

research focused on identifying practices that result in higher student academic achievement at the middle level (National Middle School Association, 2007).

Data from the 2007 National Assessment of Educational Progress, or NAEP, provided some insight into an expanding interest in the call for reform that focuses on increasing academic rigor in the middle grades. Although average scores reflected small increases in 2007, an analysis of achievement-level results in mathematics and reading for eighth-grade students reflected areas of concern. The 2007 average national score for eighth-graders in mathematics was 280. The average score was 278 in 2005. Nationally, three out of 10 eighth-graders performed at the “Below Basic” level in mathematics in 2007; 39 percent performed at the “Basic” level; 24 percent performed at the “Proficient Level;” and 7 percent performed at the “Advanced” level (Lee, Grigg & Dion, 2007).

The 2007 average national score for eighth graders in reading was 261, a slight increase from an average score of 260 in 2005. In 2007, 27 percent of those eighth-graders performed at the “Below Basic” level; 43 percent at the “Basic” level; 27 percent at the “Proficient” level; and 2 percent at the “Advanced” level (Lee, Grigg & Donahue, 2007).

The results of West Virginia’s eighth-graders on the 2007 NAEP documented performance below the national average in mathematics and reading. In mathematics, West Virginia’s eighth-graders had an average score of 270 in 2007; 269 in 2005; and 271 in 2003. In 2007, West Virginia’s male eighth-graders had an average score of 271, compared to an average score of 269 for females in mathematics. In terms of West Virginia achievement levels in mathematics, 38 percent of the tested eighth-graders performed at the “Below Basic” level in 2007; 43 percent performed at the “Basic” level; 16 percent were “Proficient;” and 2 percent were “Advanced” (Lee, Grigg & Dion, 2007).

In reading, West Virginia’s eighth-graders had an average score of 255 in 2007; 255 in 2005; and 260 in 2003. In 2007, West Virginia’s females had an average score of 262, compared to an average score of 248 for males. Regarding West Virginia’s achievement levels in reading, 32 percent of the eighth-graders tested performed at the “Below Basic” level in 2007; 45 percent performed at the “Basic” level; 22 percent at the “Proficient” level; and 1 percent at the “Advanced” level (Lee, Grigg & Donahue, 2007).

Results from the 2006-2007 administration of the West Virginia Department of Education’s WESTEST also provided some measure of middle grades students’ performance. When student performance data in mathematics and reading were analyzed for grades six, seven and eight, the percentage of students performing at the “Proficient” level in reading ranged from 83.0 percent in the seventh grade to 81.1 percent in the eighth grade. In mathematics, the percentages of students at the “Proficient” level ranged from 72.4 percent in the eighth grade to 78.2 percent in the sixth grade (West Virginia Department of Education, 2007).

In grade six, 17.3 percent of the students performed at the “Novice” or “Below Mastery” levels in reading and 21.7 percent performed at one of those levels in mathematics in the seventh grade. In grade seven, 17 percent performed at the “Novice” or “Below Mastery” levels in reading and 23.3 percent performed likewise in mathematics. In grade eight, 18.9 percent of the students performed at the “Novice” or “Below Mastery” levels in reading and 27.6 percent performed similarly in mathematics (West Virginia Department of Education, 2007).

The performance of middle grade students compared to the performance of their peers in other countries has also been central to the debate about the direction of middle level

reform. One of the most widely-discussed international performance comparisons evolved from the 2003 Trends in International Mathematics and Science Study, or TIMSS, conducted by the International Association for the Evaluation of Educational Achievement. A total of 46 countries participated in TIMSS, 45 of which submitted eighth-grade results.

In mathematics, eighth-graders in the United States produced an average score of 504, which was higher than the average international score of 467 for the countries involved in the study at the eighth-grade level. Students in five Asian countries—Chinese Taipei, Hong Kong SAR, Japan, Korea and Singapore—and four European countries—Belgium (Flemish), Estonia, Hungary and the Netherlands—outperformed United States students. When compared to their peers in the other 12 Organization for Economic Co-operation and Development (OECD) member countries that participated in the eighth-grade study, students from five countries scored higher than eighth-graders from the United States but U.S. eighth-graders outperformed students from Italy and Norway (Mullis, Martin, Gonzalez & Chrostowski, 2003).

In science, United States eighth-graders outperformed their peers in 32 of the 44 countries participating in the eighth-grade component of the 2003 TIMSS science assessment. On average, however, they performed lower than their peers in seven countries, and there were no measurable differences in their performance compared to their peers in five additional countries. When U.S. students' science scores were compared to those of their peers in the other 12 OECD-member countries participating in the study, United States eighth-graders outperformed their peers in Belgium-Flemish, Italy, Norway, Scotland and the Slovak Republic and were outperformed by students in the countries of Hungary, Japan and Korea (Martin, Mullis, Gonzalez & Chrostowski, 2003).

### **District and School-Level Guidelines and Best Practices**

Working collaboratively with their schools, local school districts can make a difference in facilitating reform and improvement in middle level schools. Specific actions that can be taken at the district level include developing and formally adopting goals and an explicit mission for the middle grades, identifying achievement gaps and grade-level benchmarks, ensuring that a rigorous academic curriculum is available to all students and collecting data that will assist schools in making instructional and curricular decisions. Districts can also develop and articulate a vision for effective instruction, ensure that professional development is aligned with district needs and goals, emphasize the integration of literacy across the curriculum and continuously support the creation of a culture of school improvement (Bottoms, Cooney & Timberlake, 2007).

The Southern Regional Education Board has identified a series of factors that support a comprehensive framework for improving education in the middle grades. These factors include an academic core curriculum aligned with rigorous standards, teachers who are collaborative, a central belief that every student matters, a commitment to provide extra help and time, parental support and instructional practices that actively engage students. Other factors include teachers skilled in content area and pedagogy, data-based school improvement practices, teachers who can use technology to improve learning and strong leadership at the school level (Cooney, 1999).

A 2002 Southern Regional Educational Board review of the literature on academic achievement in the middle grades found what was characterized as a modest base of research available to provide guidance for the development of middle level policies and practices. The

best practices for increasing middle level student achievement that emerged from this literature review included providing access to a rich and accelerated core curriculum, establishing high academic expectations within a supportive climate, providing extra time and help for those students in need of it, engaging students in interesting and relevant hands-on activities and encouraging parent and student discussions about academic progress and career goals. Other research-based practices identified included grouping students to facilitate learning across the curriculum, ensuring students are linked to a caring adult within the school, aligning curriculum vertically and providing appropriately credentialed and qualified teachers in each classroom (Heller, Calderon & Medrich, 2002).

Beginning in 1995 and continuing through 2001, the Edna McConnell Clark Foundation conducted one of the nation's earliest experiments in middle level standards-based reform. Working with six urban school districts and their communities, the project was designed to use standards as the means to develop a culture in which all students would achieve and that middle school students would enter high school with the knowledge and skills needed to graduate and succeed in college or the workplace (Mackinnon, 2003). The Clark Foundation project resulted in the identification of a series of lessons learned for school districts working with standards-based reform at the middle level. These lessons included:

- Making significant changes at the district level proved to be more difficult and required different strengths and skills than with individual schools.
- School systems did not have adequate capacity, especially in terms of on-site expert assistance, to bring about real change.
- School districts would have benefited from the inclusion of a capacity-building phase following planning and prior to implementation.
- Qualitative and quantitative elements of the evaluation design should have been developed as a part of the initial planning process in Year One and state representatives should have been involved from the outset.
- More specific guidelines and expectations, earlier technical assistance and increased involvement of outside groups would have facilitated increased coherence, depth and enthusiasm with parent and community interactions.
- Reform efforts were occasionally temporarily stalled by political or personnel issues within the district.
- Increasing student test scores was a much more difficult task than initially anticipated and efforts were sometimes in conflict with the goal of bringing about fundamental institutional change.
- True standards-based reform required intensive and extensive professional development, new accountability and data systems, and an intense focus on teaching and the instructional process (Mackinnon, 2003).

The SREB's Making Middle Grades Work initiative documented a series of guidelines and observations that provide guidance for district and school leaders involved in middle grades reform. District leadership personnel must clearly communicate the mission of the middle school to school and community personnel, provide leadership for collaboratively developing a comprehensive vision that will guide policy development and provide the financial support and human resources needed to implement and sustain reform efforts. District leaders must also be committed to a collaborative school improvement model that is

flexible enough to allow school-level choices, buy-in and ownership (Bottoms, Cooney & Timberlake, 2007).

Based on results from the schools participating in the Making Middle Grades Work initiative, high-achieving middle schools had the following identifiable characteristics: rigorous course work in English/language arts, mathematics and science; higher quality mathematics and science instruction with an emphasis on school wide literacy; high expectations with assistance for those students needing help; and formal assistance with planning for high school. The high-achieving middle schools also had school leaders and teachers committed to continuous improvement and creating a culture of high expectations (Bottoms, Cooney & Timberlake, 2007).

A recent study that examined the role of local context and innovation in how four middle schools adapted the Turning Points design provides some guidance for school districts involved in middle level reform. Study findings documented the presence of four common characteristics in each of the schools, all of which were considered to be schools that were effective in implementing key elements of the Turning Points model. The four schools used different strategies for developing and implementing shared leadership to support improvements in school curricula and the instructional process, improved teaching and learning through teacher collaboration, personalized instruction to assist teachers and students in getting to know each other and data-based decision-making. The common themes that emerged and provided guidance for schools and school districts were the critical roles of professional collaboration and shared leadership in reform; the importance of avoiding complexity and staying focused on a small number of clear teaching and learning goals; and an understanding of the importance of a common framework in combination with local context and leadership (Feldman & Ouimette, 2004).

In 2004, the Florida Department of Education developed a statewide plan for middle grades education reform. This plan included recommendations for action for the legislature, State Board of Education and district school boards. Recommendations for district school boards included providing district teachers with standards-based and content-focused professional development, establishing district K-12 articulation committees to ensure local curriculum alignment, evaluating middle grade student access to higher level electives, developing action plans needed to enhance academic and social behavior success for the students and evaluating attendance and tardiness policies for effectiveness (Florida Department of Education, 2005).

### **State Level Guidelines and Best Practices**

State level agencies and leaders can play a critical role in supporting district and school reform and improvement at the middle level. State agencies can provide leadership for defining high school readiness standards, offer assistance to districts and schools in aligning curriculum and instructional practices, assess the readiness of middle level students for college-preparatory high school classes and evaluate the state funding formula to ensure that middle level schools are being treated equitably compared to other grade levels. State actions can also facilitate reform and improvement by challenging district and school leaders to acknowledge poor performance and respond appropriately, creating and communicating a vision of rigorous and relevant middle level curriculum, ensuring alignment of middle grades and high school curricula, developing school leadership teams committed to continuous improvement and reform and developing a framework for teaching in the middle grades that

focuses on instructional improvement and academic achievement (Bottoms, Cooney & Timberlake, 2007).

Acknowledging that state and district leaders may not always share a common vision of the elements of the ideal middle school, the Southern Regional Education Board identified a series of actions that states can take to improve middle grades student achievement. In terms of setting standards and expectations, states should clearly identify content and performance standards, compare student performance at the end of the eighth grade to comparable performance on the National Assessment for Educational Progress, provide a framework for a core curriculum, align assessments to content standards and define student performance standards. Recommended state actions related to assessment and accountability included reporting student performance data in ways that were useful to districts, requiring a middle grades-specific teaching license with a content major or minor and ensuring licensure standards require middle level classroom experience (Cooney, 1999).

State actions recommended for improving teaching for the middle grades included developing policies that ensured employment of appropriately qualified teachers, requiring current teachers to acquire at least a content minor within five years and providing professional development based on student performance. Cooney also recommended that states should articulate a clear vision of comprehensive improvement for the middle grades, designate personnel responsible for middle grades education at the state level and evaluate the state resource commitment to middle grades education (Cooney, 1999).

A 2003 SREB research report also identified a series of actions states can take to improve student achievement in the middle grades. States can provide leadership to districts and schools by clearly identifying what middle grades students should know and be able to do and set reasonable performance standards to assess student progress. States can formally commit to providing the resources needed to assist struggling learners and build district and school capacity through coaching designed to enhance curriculum and, ultimately, student achievement. States can also provide leadership in developing policies to facilitate smooth transitions to and from middle school, encourage school districts and higher education institutions to work collaboratively on middle level reform and develop licensure policies and standards to ensure that only teachers with appropriate content knowledge and instructional skills are employed (Cooney & Bottoms, 2003).

In response to the passage of a major legislative reform act in 2004, the Florida Department of Education created a Middle Grades Reform Task Force. This task force conducted a series of Middle Grade Reform Public Forums and created a Middle Grades Reform Web site. A series of recommendations for the legislature and State Board of Education emerged from this initiative, including formally adopting a state-level middle grades mission statement, requiring local school boards to use the statewide high school grading policy for all middle grades students, eliminating social promotion and requiring merit-based promotion for the middle grades, modifying the retention policy so that students were not required to repeat courses they had passed and requiring struggling readers to be provided with intensive reading intervention. Other recommendations to the legislature included requiring a credit-based student accountability system for the middle grades, continuing to support Florida's research initiative related to literacy instruction and assessment, conducting a study of perceived grade inflation at the middle level and creating a statewide professional development program for school leaders (Florida Department of Education, 2005).

Recommendations to the State Board of Education included reviewing middle grades standards to ensure appropriate rigor and relevance, recommending to the legislature minimum course requirements for middle school completion, leading a statewide effort for performance-based salary differentiation and conducting a review of the process for adopting instructional materials. Other recommendations included ensuring that all alternative certification programs included essential reading competencies and reviewing and revising the requirements for teacher preparation program approval to ensure new teachers would be prepared for the classroom of the future (Florida Department of Education, 2005).

In 2004, the North Carolina Department of Public Instruction released an updated version of a 1989 set of recommendations for reforming middle grades education. The most recent report was designed to extend the recommendations and best practices of the 1989 report and incorporate elements of the No Child Left Behind Act of 2001, while continuing to focus on the improvement of middle grades education in North Carolina. The recommendations from the group were organized into five broad categories dealing with curriculum and instruction, diversity, educator preparation, organization and culture, and partnerships (North Carolina Department of Public Instruction, 2004).

Key recommendations in the curriculum and instruction category included continuing a strong emphasis on core subjects, providing a variety of elective courses, ensuring that teachers are highly qualified, giving special emphasis to reading comprehension and writing, making learning student-centered, using continuous and authentic assessment and evaluation and developing systems for recognizing and celebrating student success. Recommendations in the diversity category included preparing middle level educators to respond effectively to student diversity, ensuring all teacher preparation and professional development programs include diversity components and providing a rigorous and accelerated curriculum for all students. Educator preparation recommendations included requiring middle level professional development for add-on certificates, requiring preservice middle level teachers to complete one year of teaching in his or her core content areas and revising the current licensure structure to better reflect the needs of middle grades students (North Carolina Department of Instruction, 2004).

Organizational and cultural recommendations included requiring middle schools to have advisory programs, ensuring that administrators and teachers have the appropriate skills and dispositions for middle level teaching, using student performance data as a basis for planning and decision-making, having each middle school develop an improvement plan, facilitating scheduling flexibility that fosters teacher collaboration and recognizing the importance of individual and team planning time. Significant partnership recommendations included encouraging schools and teachers to involve parents in their schools, having school improvement plans to address the creative involvement of parents, developing partnerships that support smooth transitions from elementary to middle school and from middle to high school and requiring schools to establish effective two-way communication procedures with all appropriate stakeholders (North Carolina Department of Public Instruction, 2004).

The New Jersey Department of Education approached reform in the middle grades by establishing a Middle Grade Literacy Task Force charged with providing the parameters and direction for a statewide initiative focused on improving literacy achievement in the middle grades. The report of the task force provided recommendations in the areas of implementing effective practices, professional development, preservice teacher preparation, certification and assessment (New Jersey Department of Education, 2004). Key recommendations from

the New Jersey task force report included establishing a state level office focused on middle grades literacy, creating district school councils to plan professional development focused on improving student performance, funding teacher research on best practices, providing specially trained literacy workers and providing focused professional development for teachers and administrators. Other recommendations included implementing a more focused and rigorous middle grades student teaching program, requiring all middle grades teachers to have specialized literacy training, providing special support for students performing below expectations, providing special training on data analysis and utilization and promoting expanded and more effective uses of state assessments at the school and district levels (New Jersey Department of Education, 2004).

As part of an initiative to improve middle grades instruction in the state of Washington, the Washington State Middle Level Task Force conducted a study of 32 middle level schools that had demonstrated improved performance on state-mandated assessments. Several strategies had a positive impact on middle level student achievement and provided some significant guidance for other states seeking to improve middle grades programs (Office of Superintendent of Public Instruction, 2001).

Positive student gains were reported for schools that viewed time as a critical resource and managed it effectively. School curricula, instruction and assessments were aligned and linked. Professional development was focused and embedded, and teachers worked collaboratively to address student learning needs. Instructional leadership and decision-making were shared responsibilities. Instructional decisions were made based on data findings, and individual students were supported. Successful schools were characterized by cooperation between staff and students and the school and community. Finally, a unified vision and purpose provided support for high expectations for student performance among staff (Office of Superintendent of Public Instruction, 2001).

California has been active in the middle school reform movement for more than two decades. In 2001, the California Department of Education published *Taking Center Stage: A Commitment to Standards-Based Education for California's Middle Grade Students*. This document was considered an extension of *Caught in the Middle*, which the Department published in 1987. Working cooperatively with the California Middle Grades Alliance and the Forum to Accelerate Middle Grades Reform, the California Department of Education produced a set of 12 recommendations, which provided the basis for *Taking Center Stage-Act. 11: Closing the Achievement Gap for California Middle Grades Students*, a document in development for 2008. The 12 recommendations were organized around the broad categories of academic excellence, developmentally responsive practices, socially equitable practices and organizational support and processes (California Department of Education, 2007).

Recommendations in the academic excellence category included developing and maintaining high expectations, offering challenging lessons that involve critical thinking skills and implementing flexible schedules. Developmentally responsive practice recommendations included ensuring relevance by developing rich curricular opportunities, fostering close relationships for accountability and student engagement and working with all levels to develop seamless transitions. Recommendations in the socially equitable practices category included ensuring equal access to a high-quality learning environment and creating a fair, safe and healthy school environment. Organizational support and process recommendations included facilitating distributed leadership and collaborative decision-making, building and sustaining professional learning communities, providing the

accountability mechanisms needed to close the achievement gap and engaging all stakeholders or partners in middle school improvement and reform (California Department of Education, 2007).

In a 2002 presentation to Louisiana's Blue Ribbon Commission on Educational Excellence, Mizell (2002) articulated a series of steps states can take to improve middle level schooling. Initially, Mizell said states should develop and distribute a brief but concise statement of middle school mission. Second, the state should assign a senior official or staff member charged with providing full-time, day-to-day statewide leadership. In terms of prospective teachers, states should adopt policies and regulations that require a major in the subject to be taught and sustained practical experience in middle schools as part of the preservice training program.

Mizell (2002) also suggested that states should embrace the goal of having only teachers who are middle school certified and have a content major. For current teachers and administrators, states must develop and support a focused and targeted program of professional development. States could also identify exemplary middle level educators and develop formal mechanisms for them to be recognized and share their expertise. Finally, states should consider the recommendations of such reform efforts as Making Middle Grades Work and ensure that reform efforts are aligned with No Child Left Behind Act requirements.

### **Teacher Preparation and Professional Development**

In recent years, the National Forum to Accelerate Middle-Grades Reform has emerged as a leading advocate of middle grades reform on a national level. Committed to a philosophy undergirded by the belief that preparation programs for middle grades teachers must be different from those designed to prepare elementary and secondary level teachers, the Forum has developed a policy statement on teacher preparation, licensure and recruitment. Major recommendations for states included establishing mandatory requirements for the licensure of middle grades teachers, encouraging colleges and universities to develop preparation programs specifically for the middle grades, encouraging districts and schools to employ middle grades teachers prepared in the subjects they teach, developing licensure patterns specific to the middle grades, requiring licensure for middle grades content teachers to be subject specific and encouraging higher education institutions to work collaboratively to provide professional development and support for new and experienced middle grades teachers (National Forum to Accelerate Middle-Grades Reform, 2002).

A recent study conducted through the Center for Research in Mathematics and Science Education at Michigan State University compared the preparation of middle school mathematics teachers in Chinese Taipei (Taiwan), South Korea (Korea), Bulgaria, Germany, Mexico and the United States. The study was designed to address the question of how best to prepare future middle school mathematics teachers so they can effectively teach a more rigorous curriculum to all students (Schmidt, et al. 2007). Study findings showed that having future middle level mathematics teachers take more mathematics was part of the answer. In addition, future middle level teachers must also have some preparation in general pedagogy and practical pedagogy, such as classroom management. Countries whose middle level students consistently perform well on international benchmark tests also had a rigorous and

focused math curriculum and teachers who were appropriately trained in content and pedagogy (Schmidt, et al. 2007).

The Southern Regional Education Board also developed a set of state recommendations that have implications for preservice teacher preparation and professional development for current teachers. SREB recommendations for states included eliminating overlapping licenses at the middle level, requiring teachers to have at least one academic subject minor, consider increasing teacher preparation program entrance requirements, requiring prospective teachers to have middle grades student teaching experience and using the results of teacher licensure tests and performance assessments to evaluate preparation programs. Other SREB recommendations for states included developing district level beginning teacher assistance programs, requiring all current teachers to obtain a content minor within five years, requiring each school to develop a professional development plan connected with student performance and evaluating the programmatic and fiscal impact of current professional development efforts (Cooney, 1998).

A June 2004 NMSA research summary recommended that professional development for middle level teachers be targeted, ongoing and embedded in the workday. This professional development should be focused on building a deeper understanding of the discipline taught and knowledge of instructional strategies and the unique characteristics of young adolescents (National Middle School Association, 2004). Effective professional development can be characterized as professional development that is research-based and enhances teacher content and pedagogical knowledge. Effective professional development is also relevant and focused; based on principles of adult learning; standards-based and continuous; embedded and aligned with school goals; collaborative; and provides opportunities for discussion and reflection. The National Staff Development Council recommended that 10 percent of school budgets and at least 25 percent of teachers' work time to be devoted to professional development and teacher learning (National Middle School Association, 2004).

An analysis of professional development data from 85 Mid South Middle Start Schools, including 1,551 academic subject classroom teachers and 75 administrators, as well as data gathered from Michigan Middle Start schools since 1994, provided a series of lessons learned regarding middle grades teacher professional development. Study findings indicated very few middle level teachers had received special training on understanding and teaching early adolescents prior to actually being employed in a middle school setting. Study data also indicated that professional development opportunities were available formally and informally at the school, district, state and national levels. Teachers and administrators must establish a dialogue about barriers that prohibit teachers from participating in available professional development opportunities. Both groups must also have input on the decisions regarding the goals and alignment of professional development for teachers (Flowers, Mertens & Mulhall, 2002).

Data from a series of studies conducted by the Center for Prevention Research and Development at the University of Illinois provided some insight into the effects of middle grades teacher certification on teaching practices and student learning. These studies involved teachers from 134 Michigan middle grades schools in 2001-2002, teachers from 127 Michigan middle grades schools in 2002-2003 and teachers from 42 middle grades schools in Louisiana in 2002-2003. Study findings indicated that teachers possessing an elementary or middle grades certification reported higher levels of both interdisciplinary

team and middle grades classroom practices, compared to teachers with secondary certification. Regardless of the type of certifications held, teachers in schools that were teaching with high levels of common planning time generally had higher levels of team and classroom practices. Certified middle grades teachers in schools with high levels of common planning time generally reported the highest levels of all middle grades practices (Mertens, Flowers & Mulhall, 2005).

Louis (n.d.) provided an insightful analysis of middle level professional development for teachers. Acknowledging that middle grades education will continue to evolve in a highly political context, Louis suggested that it is important for teacher change and school reform strategies to be integrated into the discussion about professional development for the middle grades. She further asserted that what is currently known about staff development strategies for developing effective middle schools is insufficient. She suggested that changing teachers' beliefs, knowledge and skills is a necessary, but not sufficient, condition for effective professional development. The focus on change in teachers can only be effective with concurrent consideration of the applicable organizational context and leadership culture.

Developing and implementing a teacher professional development plan as an element of middle level reform can present some special challenges. The reform initiative usually requires that teachers learn and use new skills, resulting in an increased level of training needs. These new skills and issues may also reflect a wider range of training topics than would normally be addressed. Finally, it is critical that training opportunities be prioritized to be consistent with the objectives of the reform initiatives and the resources available (Flowers, Mertens & Mulhall, 2002).

### **Continuing Challenges and Policy Issues**

The renewed interest in middle level reform that began in the 1960s had many of the same goals associated with the creation of the junior high school some fifty years earlier. The concerns during the 1960s reform movement were similar to those of the 1940s and somewhat like those of today: disjointed curriculum; departmentalized instruction; instruction that does not actively involve students; tracking students based on ability; inadequately prepared teachers; and extensive reliance on textbooks. Within the past decade, middle level schools have also been increasingly criticized for lacking academic rigor and failing to teach the critical thinking skills necessary for survival and success in the 21st century. Specific criticisms have included a lack of curricular focus on analytical skills and core academic subjects, teachers inadequately prepared to teach challenging content and high-level skills and excessive use of ability grouping. Reconciling the increased pressure for academic rigor with the long standing goals of the middle school in addressing the multifaceted social, psychological/emotional and physical needs of early adolescents will continue to be a major challenge as the effort to reform middle level education continues to evolve (Alt & Choy, 2000).

Dickinson and Butler (2001) identified six factors they believe contributed to the less-than-full development of the middle school concept during the past four decades. These variables included the use of the incremental stage approach to becoming a middle school, the shortage of middle school teacher preparation and licensure programs, a focus on organizational structure rather than curriculum, the inability of the National Middle School Association to provide overall leadership for the movement, the lack of comprehensive and

systematic research about reform and the overall misunderstanding about schooling as an ecological concept.

One area with future policy implications for middle grades reform is the potential impact of middle level interventions on high school dropout rates. An October 2007 report produced by the National High School Center at the American Institutes for Research concluded that most potential high school dropouts could be identified as early as the sixth grade. Summarizing the findings from an analysis of related studies, the report suggested that more than half of sixth graders with the following characteristics would eventually dropout of school: absent from school more than 20 percent of the time; received low final grades in behavior; and had failing grades in either math or English. Recommending that dropout prevention efforts be initiated at the beginning of the middle grades, the study identified poor grades in core subjects, low attendance, failure to be promoted to the next grade, behavioral problems and disengagement in the classroom as indicators of students who were most likely to leave school (Kennelly & Monrad, 2007).

A September 2005 report from the Thomas B. Fordham Institute characterized middle schools as having contributed to the significant decline in academic achievement among middle level students in the United States and called for middle grades educational reform to include a new focus on discipline, higher standards and increased accountability for student achievement. Citing research from projects in Milwaukee, Philadelphia and Baltimore, the report also called for a return to the K-8 model of education and identified several related topics for further research: comparisons of self-contained and departmentalized instruction; experimentation with different models for transitioning to a K-8 arrangement; assessing the impact of K-8 schools on sexual activity; determining the role and impact of charter schools; and comparing retention models for minority students (Yecke, 2005).

The National Staff Development Council outlined steps needed to continue the development of effective professional development programs for the middle grades. Those next steps included providing professional development related to the content of teachers' subject areas and content-specific pedagogy, using learning processes that challenge teacher beliefs and knowledge constructs, using a variety of delivery models with a focus on job-embedded professional development, providing long-term follow-up and support, developing new systems for collecting data and exploring new evaluations systems for linking professional development and student achievement. Other recommendations included becoming more critical consumers of professional development programs and creating organizational structures that support ongoing teacher learning and facilitate program sustainability (Killion, 1999).

Anthony Jackson, a former Carnegie program officer who worked with the Council on Adolescent Development, and co-author of *Turning Points 2000: Educating Adolescents for the 21st Century*, provided some insight into both the past and future of middle grades reform. Historically, enough emphasis has not been placed on changing the way teachers teach and developing and implementing more effective curricula, instructional strategies and methods of assessment. At the same time, structural and organizational changes have been overemphasized. Jackson was not suggesting that structural and organizational changes were not important; he was asserting that those changes are necessary, but not sufficient, for true middle grades reform (Norton, 2000).

The most challenging task for middle grades reform is to determine what changes and improvements in curriculum, instruction and professional development will produce the

desired levels of student achievement. At that point, it can then be determined how those changes can best be supported by appropriate organizational and structural modifications. According to Jackson, sustainable reform must be holistic and include all the key elements of the middle grades (Norton, 2000).

### **Summary**

The recent call for reform and the reinvention of middle level education in the United States is, in many ways, based on the criticisms of middle level concepts that have been voiced since the inception of special schools for early adolescents in the early 1900s. At the same time, however, there are differences. The evolution of the standards-based reform movement, coupled with the passage of the No Child Left Behind Act in 2001, has associated with them a new call for accountability and commitment in providing a curriculum that is truly focused on higher order thinking and problem solving skills. In essence, a curriculum that is more academically rigorous truly provides middle level students with the knowledge and skills needed to be successful in high school, college and the 21st century workplace.

To be successful, this new reform initiative must also guard against too great a focus on organizational and structural concerns at the expense of true curricular and instructional reform. Noting that no reform is self-implementing, Mizell identified the elements of successful and effective reform in his 2003 presentation, "Guiding Questions for Middle Grades Reform." Those elements included a practical philosophical framework, a reasonable change theory, strategies linked to specific results, clear communication, sound political support, tenacity over time, continuous outcome assessment, critical reflection and analysis, and refinement and modification as needed. How schools balance the social and emotional needs of the middle level student with the proclamation by some organizations that the main purpose of middle level education is intellectual development will continue to be a challenge.

**Figure 1. Recommendations/guidelines for policy and best practices for middle school curriculum/instruction and professional development.**

<b>Policy/Best Practices Focus Areas</b>	<b>Recommendations/Guidelines</b>
Curriculum/ Instruction	<ul style="list-style-type: none"> <li>▪ Develop and adopt standards-based middle level curricula.</li> <li>▪ Develop policies that require alignment of curricula, instruction and assessment.</li> <li>▪ Vertically align elementary, middle and secondary curricula.</li> <li>▪ Incorporate Service Learning and career exploration opportunities into the curriculum.</li> <li>▪ Evaluate middle level student promotion and retention policies for effectiveness and impact.</li> <li>▪ Develop after-school programs.</li> <li>▪ Identify performance gaps and grade-level benchmarks.</li> <li>▪ Adopt and publicly advocate a vision of a rigorous and relevant middle level curriculum.</li> <li>▪ Promote the development of elementary school to middle school and middle school to high school transition programs.</li> <li>▪ Develop policies that support/encourage the use of continuous and authentic assessment.</li> <li>▪ Promote the integration of literacy throughout the curriculum.</li> </ul>
Professional Development	<ul style="list-style-type: none"> <li>▪ Provide data-driven professional development that focuses on strengthening the core curriculum, curriculum integration, technology utilization, research-based instructional strategies, assessment strategies and the needs of diverse learners.</li> <li>▪ Provide regular opportunities for collaboration among middle level educators.</li> <li>▪ Develop middle level licensure/certification policies and standards for teachers and administrators.</li> <li>▪ Adapt and encourage implementation of National Staff Development Council (NSDC) recommendations regarding middle grades professional development.</li> </ul>

**Figure 2. Recommendations/guidelines for policy and best practices for middle school capacity building, stakeholder involvement and organization/structure.**

<b>Policy/Best Practices Focus Areas</b>	<b>Recommendations/Guidelines</b>
Capacity Building	<ul style="list-style-type: none"> <li>▪ Designate a qualified middle level liaison at the state level.</li> <li>▪ Consider state, district and school implications from national and regional reform initiatives such as <i>MMGW</i>, <i>Turning Points</i>, etc.</li> <li>▪ Develop formal programs that allow exemplary middle level teachers and administrators to be recognized and share their expertise.</li> <li>▪ Develop policies that facilitate recruitment/retention of teachers specifically prepared to teach at the middle level.</li> <li>▪ Develop policies that provide support/incentives for sustainable district-school partnerships.</li> <li>▪ Develop special support programs for the lowest performing middle level schools.</li> <li>▪ Develop special student support systems (e.g. coaching, extended time, etc).</li> <li>▪ Continuously foster the development of a culture of school improvement.</li> </ul>
Stakeholder Involvement	<ul style="list-style-type: none"> <li>▪ Provide all stakeholders opportunities to increase their understanding of middle level concepts and issues.</li> <li>▪ Develop policies that encourage the use of 21st Century technology to enhance home-school interaction.</li> <li>▪ Collaborate with colleges and universities to form professional learning communities involving prospective and experienced middle level teachers.</li> <li>▪ Encourage the involvement of volunteers as tutors, guest speakers and resource persons in middle schools.</li> <li>▪ Create opportunities for service integration and coordination with community agencies to meet the emerging needs of middle level students and their families.</li> </ul>
Organization/ Structure	<ul style="list-style-type: none"> <li>▪ Recognize the middle level as a distinct stage within the K-12 continuum.</li> <li>▪ Evaluate middle level reform initiatives to ensure alignment with No Child Left Behind requirements.</li> <li>▪ Ensure the equitable distribution of effective teachers.</li> <li>▪ Support the development of flexible schedules and small learning communities in each school.</li> <li>▪ Develop and adapt explicit middle level mission/goal statements.</li> </ul>

**Figure 3. Recommendations/guidelines for policy and best practices for middle school teacher/administrator preparation and research/evaluation.**

<b>Policy/Best Practices Focus Areas</b>	<b>Recommendations/Guidelines</b>
<p style="text-align: center;">Teacher/ Administrator Preparation</p>	<ul style="list-style-type: none"> <li>▪ Base middle level teacher preparation programs on National Middle School Association (NMSA) standards.</li> <li>▪ Evaluate the current teacher and administrator licensure structure for consistency with middle level philosophy/goals.</li> <li>▪ Determine the feasibility of using the results of teacher/administrator licensure tests and performance assessments to evaluate preparation programs.</li> <li>▪ Ensure that middle level administrator preparation programs are aligned with research-based leadership and instructional practices.</li> <li>▪ Require all current middle level teachers to acquire at least a content minor within five years.</li> <li>▪ Create a statewide professional development program specifically for middle level administrators.</li> </ul>
<p style="text-align: center;">Research/Evaluation</p>	<ul style="list-style-type: none"> <li>▪ Ensure the assessment of middle level teacher practices.</li> <li>▪ Encourage and support collaboration among researchers from higher education, state agencies and local districts.</li> <li>▪ Develop and support systems for disseminating current and emerging research related to middle level education.</li> <li>▪ Compare eighth-grade performance to the National Assessment of Educational Progress (NAEP).</li> <li>▪ Encourage research that investigates links between professional development and student outcomes.</li> </ul>

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