Middle School Programmatic Characteristics and Student Achievement: A Preliminary Report of a Comprehensive, State-wide Study

Preliminary Findings as of October 28, 2005

Presentation to
National Middle School Association Annual Convention
November 4, 2005

Matthew Goodman
School Improvement Assistant, Springfield Public Schools, Springfield, MO
Jerry Valentine
Director, Middle Level Leadership Center,
University of Missouri-Columbia, Columbia, MO

The Issue

- Whether or not middle schools are value-adding, in other words,
  - "Are middle school programs and practices influencing student success academically?"

The Emerging Middle School

- The modern day middle school has its foundation in the origins of the junior high movement, but was not really given the identity it currently assumes until the 1960s.

- During this time, two publications directed the educational community's attention to the education of young adolescents: *The Emergent Middle School* written by William Alexander and his colleagues in 1968 and *The Middle School* written by Donald Eichhorn in 1966.

Alexander and Williams' Guidelines for a Middle School Model, 1965

1. A real middle school should be designed to serve the needs of older children, preadolescents, and early adolescents.

2. A middle school organization should make a reality of the long-held ideal of individualized instruction.

3. A middle school program should give high priority to the intellectual components of the curriculum.

4. A middle school program should place primary emphasis on skills of continued learning.

5. A middle school should provide a rich program of exploratory experiences.

6. A program of health and physical education should be designed especially for boys and girls of the middle school years.

7. An emphasis on values should underline all aspects of a middle school program.

8. The organization of a middle school would facilitate most effective use of the special competencies and interests of the teaching staff.

(Alexander & Williams, 1965, pp.219-220)

An Emerging Definition of a Middle School

- "…it is a school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for earlier childhood and in turn is built upon by the high school's program for adolescents….Thus, the emergent middle school may be best thought of as a phase and program of schooling bridging but differing from the childhood and adolescent phases and programs" (Alexander, et al., 1968, p.5).

The Issue Persists into the 1970s

Many alleged characteristics of the senior high have 'contaminated' the junior high—a departmentalized subject-matter curriculum, interscholastic activities, sophisticated early socialization activities, and college and vocational preparation. And now it appears that many middle schools have continued these same sins by simply moving the junior high's structure, program, and schedule down a grade or two....Thus, it should come as no surprise that the only real differences between many middle schools and junior highs have been in name and grade organization (ASCD, 1975, pp.3-4).

An Evolving Definition

- "A school of some 3-5 years between the elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned" (Alexander & George, 1981, p.3).

Another Evolving Definition of a Middle School

- Writing in 1994 Don and Sally Clark defined a middle school as

  "A separate school designed to meet the special needs of young adolescents in an organizational structure that encompasses any combinations of grades five through nine, wherein developmentally appropriate curricula and programs are used to create learning experiences that are both relative and interactive" (Clark & Clark, 1994, p.6).

Consistent Growth of Middle-Level Education

Year	Middle Schools (5-6-7-8 & 6-7-8)	Junior Highs (7-8-9)	Total ML Schools
1971	23%	45%	10,445
1981	33%	33%	12,226
1991	51%	19%	12,095
2000	69%	5%	14,107
2004	71%	4%	14,956

Source: www.mllc.org

Focus Through the Decades

- 1970s: Emergence and establishing a foundation
- 1980s: Defining the differences between junior highs and middle schools
- 1990s: Refining and challenging the basic concepts
  - The 1990s were the best decade in the history of the movement (Kasak, 2004).
- 2000s: Focus on academic excellence and social justice

Contemporary Challenges

- As the middle school movement was undergoing its best decade, calls were going out to illustrate its ineffectiveness.
- It was thought that the middle school concept and philosophy were to blame for the poor performance of adolescents on standard measures of accountability.
- Middle schools were characterized and referred to negatively
  - Muddle in the Middle (Bradley, 1998)
  - Education's Weak Link (SREB, 1998)
  - Mayhem in the Middle: How Middle Schools have Failed America—And How to Make them Work (Yecke, 2005)
- Concomitantly there have been calls for a return to K-8 schooling (Tucker & Codding, 1998; Juvonen, Le, Kaganoff, Augustine, and Constant, 2004).

Implementation is the Key

- Rather than blaming middle schools, advocates have long suggested that it might be because the middle school philosophy was not appropriately in place.
- Nearly twenty-years before, Valentine and Clark (1981) recognized this issue,

    "Even the most casual observer of middle-level education can see that what the literature, the research, and the experts suggest as appropriate, and middle-level programs as they are currently implemented are not the same" (p.5).

- Lounsbury (2000) commented on the issue,

    "The purported academic failure of the middle school, it should be noted, is due to the fact that the tenets of the middle school have not been sufficiently implemented—not that these tenets have been implemented" (p.193).

- Hayes Mizell (2002) stated of the disappointments with middle schools,

    "The answer is that while there are thousands of schools whose names include the words 'middle school,' too few of them are engaged in the focused, demanding work necessary to serve all their students well" (p.8).

Critical Documents

- In today's current middle school environment three works have been influential in setting the agenda, focusing the debate, and providing direction for practitioners and policy makers.
  - *This We Believe*
  - *Turning Points* (1989)
  - *Turning Points 2000*

- These three publications have shaped and influenced what is thought of as best practice in middle schools at the start of the twenty-first century.

- *Turning Points 2000* served as the framework for this study.

Comparison of Turning Points and Turning Points 2000

Concept	Turning Points	Turning Points 2000
Community of Learning	Creating a community for learning (1)	Organize relationships for learning to create a climate of intellectual development and a caring community of shared educational purpose (4)
Curriculum	Teaching a core of common knowledge (2)	Teach a curriculum grounded in rigorous, public academic for what students should know and be able to do, relevant to the concerns of adolescents and based on how students learn best. (1)
Student Success	Ensuring success for all students (3)	"We have recognized that ensuring success for every student is the overall goal of the *Turning Points 2000* design, not a recommendation or means to attaining that goal on par with the others, as it appeared in the original report" (Jackson & Davis, 2000b, p.24).
Leadership	Empowering teachers and administrators (4)	Govern democratically, through direct or representative participation by all school staff members, the adults who know the students best. (5)

Comparison of Turning Points and Turning Points 2000

Concept	Turning Points	Turning Points 2000
Teacher Preparation	Preparing teachers for the middle grades (5)	Staff middle grades schools with teachers who are expert at teaching young adolescents, and engage teachers in ongoing, targeted professional development opportunities. (3)
Student Health	Improving academic performance through better health and fitness (6)	Provide a safe and healthy environment as part of improving academic performance and developing caring and ethical citizens. (6)
Parent Involvement	Reengaging families in the education of young adolescents (7)	Involve parents and communities in supporting student learning and healthy development. (7)
Community Involvement	Connecting schools with communities (8)	
Instruction		Use instructional methods designed to prepare all students to achieve higher standards and to become lifelong learners. (2)

Method

- **Design of the Study**
  - Survey developed around the seven tenets of TP2000
  - Survey distributed and conducted via online system
    - Building principals were contacted by email explaining the importance of the study and requesting their participation.
    - A link to a secure site was given in the body of the email, directing participants to the survey.
    - Participants acknowledged acceptance of willingness to participate by clicking on "I accept"

Data Collection

- Initial data collection for a multi-year, longitudinal study
- Survey sent to all 5-6-7-8 & 6-7-8 middle schools in the state of Missouri
  - Fall 2005
  - 243 Schools
  - 99 responses at this time for this preliminary report (41% return at this time)
- Cross-Sectional Research
  "…provides a portrait of a group during one time period, now or in the past" (Fink, 2003, p.53).
- Student achievement and building demographic data collected annually from State Department of Education's website

Data Analysis

- Correlations of Programs and Practices with Communication Arts Statewide Achievement Data

- Tests of Differences for Programs and Practices after sorting schools into "outlier" upper-third and lower-third

- Percent of students receiving free and reduced lunch was a control variable on all tests

Preliminary Findings:
Partial Correlations

- **Partial Correlations between Programs & Practices and Student Achievement in Communication Arts**
  - Medium-size correlations, .20-.40
  - Confidence-level, .05
  - Percent of students receiving free & reduced lunch was used as a control variable

Preliminary Findings: Teaming

- Team Member Coordination of Assignments and Assessments (.253)
- Degree of Team Cohesion and Harmony (.322)
- Team Disposition--Composite (.260)
  - Address Student Needs
  - High Expectations for All Students
  - Degree of Team Cohesion and Harmony
  - Team Maturation and Interaction with students, parents, and peers

Preliminary Findings: Staff Expertise

- Support for New Teachers--Composite (.238)
  - New teacher induction program
  - New teacher mentoring program
  - New teacher orientation by principal or district
  - Other
- Support for New Teachers--Others (.289)

Preliminary Findings: Leadership Expertise

- Leadership Team Expertise--Composite (.233)
  - Presence of leadership team
  - Principal's years of experience
  - Principal's highest degree
- Principals' highest educational degree (.283)

Preliminary Findings:
Staff & Enrollment

- Ratio of FTE's devoted to leadership to Enrollment (.293)
- Ratio of FTE's devoted to core teaching to enrollment (.305)
- School Enrollment (.293)

Preliminary Findings: Exploratory Programs

- Degree to which curriculum is exploratory (provides students with opportunities to broaden their views of the world and themselves) (-.259)

Preliminary Findings: ANCOVA

- The results were categorized into upper and lower thirds for communication arts student achievement

- This technique assessed the differences in means for the variables while controlling for free & reduced lunch

- Significance level: .05

Preliminary Findings: Teaming

- Team Disposition—Composite (Sig .002)
  - High Expectations for All Students (.010)
  - Degree of Team Cohesion and Harmony (.001)
  - Team Maturation and Interaction with students, parents, and peers (.029)

Preliminary Findings: Professional Development

- **Professional Development Experiences— Composite (.002)**
  - Resources and lessons
  - Grade level needs
  - Team level needs
  - Visits to other schools
  - Academic subject matter
- **Professional Development focused on grade level needs (.014)**

Preliminary Findings: Reading

- **Reading Supports—Composite (.022)**
  - Remedial instruction
  - After-school tutoring
  - Book clubs
  - School-wide reading programs
  - Incentives for reading
  - Literacy coaches who work with teachers

Degree to which educators in our school practice middle school philosophy (.001)

Preliminary Findings:
Almost Significant

- Percent of Staffing Devoted to Core Class Instruction (.062)

- School Enrollment, total number of pupils in school (.059)

- We anticipate final results of this study being reported by January 2006.
- To monitor the progress of this study, check the website of the Middle Level Leadership Center at
  - www.mllc.org

References

- Alexander, W. M. (1977). Alternative futures for the middle school. In P. S. George (Ed.), *The middle school: A look ahead* (pp.36-46). Columbus, OH: National Middle School Association.
- Bradley, A. (1998, April 15). Muddle in the middle. *Education Week,* p.38-43.
- Carnegie Council on Adolescent Development (1989). *Turning points: Preparing American youth for the 21st century.* Washington, DC: Carnegie Council on Adolescent Development.
- Clark, S. N., Clark, D. C. (1994). *Restructuring the middle level school: Implications for school leaders.* Albany, NY: State University of New York Press.
- Eichhorn, D. H. (1987). *The middle school.* (Special Printing, 3rd Edition). Reston, VA: National Association of Secondary School Principals.
- Fink, A. (2003). *How to design survey studies.* (2nd Ed.). Thousand Oaks, CA: Sage.
- George, P. S., Stevenson, C., Thomason, J., & Beane, J. (1992). *The middle school—And beyond.* Alexandria, VA: Association for Supervision and Curriculum Development.
- Gruhn, W. T., & Douglass, H. R. (1956). *The modern junior high school* (2nd Ed.). NY: Ronald Press Company.
- Heironomus, N. C. (1940, May). Is this the earliest known junior high school? *The Clearing House,* p.518.
- Jackson, A. W., & Davis, G. A. (2000b). *Turning Points 2000: Educating adolescents In the 21st century.* NY: Teachers College Press.

References

- Juvonen, J., Le, V. N., Kaganoff, T., Augustine, C., & Constant, L. (2004). *Focus on the wonder years: Challenges facing the American middle school.* Santa Monica, CA: Rand.
- Kasak, D. (2004). What of the future? In S. C. Thompson (Ed.), *Reforming middle level education: Considerations for policymakers* (pp.231-248). Greenwich, CT: Information Age Publishing.
- Lounsbury, J. H. (2000). The middle school movement: A charge to keep. *Clearing House, 73*(4), 193.
- Mizell, H. (2002). *What parents need to know about middle school reform.* Nyack, NY: Nyack Branch of the National Association for the Advancement of Colored People. (ERIC Document Reproduction Service No. ED471909)
- Oakes, J., Hunter-Quartz, K., Gong, J., Guiton, G., & Lipton, M. (1993). Creating middle schools: Technical, normative, and political considerations. *Elementary School Journal, 93*(5), pp.461-480.
- Southern Regional Education Board. (1998). *Education's weak link: Student performance in the middle grades.* Atlanta, GA: Southern Regional Education Board.
- Toepfer Jr., C. F. (1997). Middle level curriculum's serendipitous history. In J. L. Irvin (Ed.), *What current research says to the middle level practitioner* (pp.163-177). Columbus, OH: National Middle School Association.
- Tucker, M. S., & Codding, J. B. (1998). *Standards for our schools: How to set them, measure them, and reach them.* San Francisco, CA: Jossey-Bass.
- Valentine, J. W., Clark, D. C. (1981, June). Middle level educational programs: Making the ideal a reality. *Schools in the middle: A report on trends and practices.* Reston, VA: National Association of Secondary School Principals.
- Valentine, J. W., Clark, D. C., Hackmann, D. G., & Petzko, V. N. (2004). *Leadership for highly successful middle level schools: A national study of leadership in middle level schools: Volume II.* Reston, VA: National Association of Secondary School Principals.
- Van Til, W., Vars, G. F., Lounsbury, J. H. (1961). *Modern education for the junior high school years.* Indianapolis, IN: Bobbs-Merrill.