

The New York State Education Department's Research Study of the Essential Elements of Middle-Level Education Spring 2001

Background and Introduction

Student performance on the State's intermediate assessments in English language arts and mathematics in both 2000 and 2001 is cause for concern:

- 44.9 percent of eighth grade students in both 2000 and 2001 met the English language arts intermediate-level standards.
- 40.3 percent of eighth grade students in 2000 and 39.4 percent in 2001 met the mathematics intermediate-level standards.

If the performance of students on the State's intermediate-level English language arts and mathematics assessments is an indicator, significant numbers of students leaving the middle grades are at risk of not meeting the State's commencement-level standards. Stated differently, what many middle-level schools are doing now is not working for large numbers of young adolescents. In 2000, only 57 percent of middle-level schools met the English language arts System of Accountability for Student Success (SASS) standard of 140, and even fewer, 39 percent, met the mathematics SASS standard of 140.

Common characteristics of schools where student performance is high include:

- The curriculum is appropriately aligned with the State's new learning standards.
- There is cross-discipline or applied connections and interdisciplinary learning.
- Skills common to many disciplines are being taught concurrently and consistently.
- Student schedules provide opportunities for related educational experiences.
- Classroom instructional practices reflect what works to help young adolescents learn best.
- Effective student support systems are in place for those young adolescents who are disaffected and disconnected from schools and schooling.
- Appropriate instructional support services are available to address student needs.

High performing schools with middle-level grades strengthen their school curriculum and focus classroom instruction in order to improve student performance in English language arts and mathematics, by:

- requiring each student to read at least 25 books per year and keep a list of those books read to insure variety and appropriate level of challenge;
- having students write every day in class with consistent expectations for good writing;

- insuring students have an opportunity to discuss topics under study in each class using appropriate vocabulary;
- having students solve multi-step problems in mathematics and explain their answers;
- insuring students are proficient in adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimals; and
- requiring students to be able to solve linear and quadratic equations.

These activities, examples of the Essential Elements dealing with the educational program and classroom instruction related to English language arts and mathematics, can have a significant, positive impact on student achievement on the intermediate assessments. Their value is further magnified and enhanced when middle-level schools also attend to the implementation of the five other Essential Elements.

There is guidance for middle-level schools that need to improve. Literature, research, and best practice provide guidance on what constitutes an effective middle-level school or program. These attributes are detailed in the State Education Department's publication, *Essential Elements of Standards-Focused Middle-Level Schools and Programs*.¹ The seven Essential Elements are:

- A philosophy and mission that reflect the intellectual and developmental needs and characteristics of young adolescents.
- An educational program that is comprehensive, challenging, purposeful, integrated, and standards-based.
- An organization and structure that support both academic excellence and personal development.
- Classroom instruction appropriate to the needs and characteristics of young adolescents provided by skilled and knowledgeable teachers.
- Strong educational leadership and a building administration that encourages, facilitates, and sustains involvement, participation, and partnerships.
- A network of academic and personal support available for students.
- Professional training and staff development that are ongoing, planned, purposeful, and collaboratively developed.

Unfortunately, in large numbers of middle-level schools in New York State, there is a clear incongruity between what is known to make a difference in the education of young adolescents and what is actually happening. Many middle-level schools do not have in place to any great degree the Essential Elements which constitute an effective middle-level school.

Recent Research

In spring 2001, the State Education Department, with the assistance of middle-level practitioners and the Nassau BOCES, completed a research study to gauge the degree to which high performing middle-level schools and low performing middle-level schools in four Need/Resource Categories were implementing the Essential Elements of an effective middle-level school.

The scale used had a range that went from 0 to 6:

- 0 = No evidence; no indication of any implementation efforts
- 1 = Trace evidence; a few indications of pre-implementation efforts
- 2 = Minimal evidence; limited indications of initial implementation efforts
- 3 = Some evidence; several indications of recently begun, broad-based, systemic implementation efforts
- 4 = Considerable evidence; multiple indications of long-term, broad-based, systemic implementation efforts
- 5 = Extensive evidence; numerous, compelling indications of significantly broad and deep (but not yet a totally full) implementation
- 6 = Conclusive evidence; widespread, indisputable indications of full and complete implementation

The results are revealing and instructive.

Degree of Implementation of the Characteristics of an Effective Middle-Level School
(by Need/Resource Category)

A	B	C	D	E
High Need - Urban/Suburban	High Performing	11/9	1413	3.76/6.00
High Need - Urban/Suburban	Low Performing	12/8	1368	2.92/6.00
High Need – Rural	High Performing	11/10	1424	3.82/6.00
High Need – Rural	Low Performing	11/10	1389	2.39/6.00
Average Need	High Performing	12/11	1453	4.64/6.00
Average Need	Low Performing	12/11	1390	3.33/6.00
Low Need	High Performing	11/8	1483	5.40/6.00
Low Need	Low Performing	12/10	1423	3.99/6.00

- Column A: Need/Resource Category Explanation
- Column B: Student Achievement Designation – High Performing or Low Performing
- Column C: Number of Schools Identified in Sample/Number Actually Visited
- Column D: Achievement Score (Combined ELA and Mathematics Mean Scores with the range of possible scores from 1044 to 1712)
- Column E: Degree of Implementation of Effective Middle-Level Practices (Mean Score) on a 0 to 6 scale

The data clearly show that, in each of the four Need/Resource Categories, high achieving schools are implementing the Essential Elements to a greater degree than low achieving schools. The data also show that, for the most part, the more schools implement the Essential Elements, the higher student achievement.

However, except for the highest performing schools in the average and low need categories, implementation of the characteristics of an effective middle-level school (the Essential Elements) is less than pervasive. Instead, there is a noticeable lack of implementation of the critical elements to any great degree in many middle-level schools, especially in those schools with the lowest performance.

The data also contradict the belief held by some educators that the middle-level education approach fails to educate students to high levels. Instead, the Department’s research related to

the State's middle-level schools clearly shows that most middle-level schools have not yet implemented the effective middle-level practices to any great degree and that those that have can demonstrate better student achievement than those that have not.



