



Middle School Design and Improvement Initiative

2016 Initiative Report

June 14, 2016

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Introduction

The Middle Grades Design and Improvement Initiative is grounded on current research to improve student achievement as well as align organizational structures to national best practices currently implemented in middle schools today. Middle-grade transition (i.e. grade five to grade six) and middle-level education (i.e. grade six through grade eight) is considered a developmental stage where students are discovering their physical, cognitive, and social-emotional attributes. Moreover, design efforts in the middle-level years attempt to connect students with their learning community in a deep manner. As research suggests, the trans-adolescent learner becomes “detached” with their school because of current organizational structures, models, design, and pedagogical practices employed in the classroom. The core of the Middle Grades Design and Improvement Initiative is to ensure students are immersed with their learning, while engaging in an educational paradigm that predicates on rigor, relevance, and relationships.

Our current middle school structure, curriculum, and instructional approach mirrors what research highlights as the Industrial-Age Paradigm. Many experts have contextualized this mitigating factor as “learning is the variable and time as the fixed.” The goal of the Middle Grades Design and Improvement Initiative is to create rigorous, personalized, and relevant experiences for all trans-adolescent learners, while creating organizational structures that facilitate more time for deep teaching and learning.

Best Practices from Highly Effective Middle Schools:

The theme among different research studies focus on curtailing the precipitous academic regression of students transitioning from fifth to sixth grade. Because of this local/national educational quandary, large-scale research projects have focused on radical reform in this area. The consensus among the research recommend middle schools should be designed to address the academic, social, and cognitive needs of students. The Hanover Research Project conducted a meta-analysis study on middle schools that not only closed the achievement gap, but raised academic learning standards that exceed their national counterparts. Key findings from this study concluded:

- **The use of teaching where teachers work across departments with a set of students:** Experts contend that teaming is uniquely advantageous for middle schools students. Additionally, teaming promotes interdisciplinary instruction and coordination, especially when teacher teams receive common planning time.
- **Highly successful middle schools are more likely to use block scheduling:** Research recommends a model where students attend fewer, but longer class periods during the school day. This model design is a fundamental departure from traditional middle school schedules that comprise of six or more class periods a day. Block scheduling in the middle school sector promotes greater flexibility in instructional techniques, which guarantees more time for opportunities to learn.
- **Increasing instruction time with structural supports can be an effective approach to support student learning:** In the context of program design and organizational structures, experts contend that extending instructional time coupled with structural supports (i.e. interventions) optimize student learning, while improving teacher effectiveness. This includes deepening tier I instruction and providing tier II/tier III interventions.
- **Courses that promote exploration:** The most effective middle schools in our country provide coursework that supplement the curriculum. Courses that promote exploration help students identify and pursue interest outside of core academic subjects. A number of exemplary middle schools use exploratory coursework (e.g. Encore) to build upon and deepen the core curriculum. In essence, middle schools may offer exploratory courses that support the theme or targeted goals of a school.

School Plans Aligned to National Best Practices:

Since the inception of the Middle Grades Design and Improvement Initiative, a district committee has met bi-weekly since March 24, 2016. This committee, comprised of central office administrators, site-based leaders, teachers, parents, and educational advocacy groups (i.e. Norwalk ACTS) have vetted/researched national trends around effective middle school models. Also, district committee members conducted a site-visit to Hartford to review best practices implemented at scale. With depth, breadth, and intense collaboration, all schools have adopted design elements that are aligned to best practices in secondary education reform. Below are the common best practices that all middle schools have identified and adopted since March 24, 2016:

- **Extended Learning (Modified Block) in Grade Six:** All middle schools have agreed to employ a modified block, which is a combination of a 4x4 block schedule (grade six) and regular schedule (grade seven and grade eight). Because of the implementation of the “Teach-to-One” personal math model at Nathan Hale, they will be implementing a combination block, which is a 4x4 schedule using an “A/B” structure in all grades.
- **Common Planning Time and Interdisciplinary Teams:** A best practice in the middle school model is creating interdisciplinary teams where teachers with distinct skills share responsibility of teaching a cohort of students. Each middle school has created interdisciplinary teams in grade six where students have been divided into equal cohorts. To couple the interdisciplinary team structure in grade six at our middle schools, common planning time has been allotted in all schedules for teams to meet for professional learning, curriculum/program implementation, joint planning, and data analysis sessions. As most middle schools have time for “common planning time” embedded in their current schedules, the Center for Secondary School Redesign has provided teacher-leader/team-leader professional development to implement structured protocols for common planning time sessions. This support will be on-going for practitioners in grade six as well as team-leaders/teacher-leaders in grade seven and grade eight.

- **Read 180, Systems 44, and Math 180:** Structural supports are levers to raise and accelerate student achievement. Students in grade six who qualified for Read 180, Systems 44, and Math 180 will be provided this targeted intervention during the 2016-2017 academic year. The Curriculum Office has identified all incoming six graders that need extra support using national/local norms and cut scores from various formative/summative measures.

Innovative Design Elements in Norwalk Middle Schools:

Nathan Hale Middle School:

- **Flexible Schedules:** There are two approaches to scheduling time periods within the academic day (fixed versus flexible). To ensure that time is the variable, Nathan Hale has adopted flexible schedules in which teachers are encouraged to alter times to best address student learning needs. At Nathan Hale, bell schedules exist; however teachers may alter the time to provide students more instructional support. Nathan Hale practitioners will have flexibility with instruction to regroup students, coordinate interdisciplinary activities, provide project-based learning time for students, and embed team teaching activities for multidisciplinary purposes.
- **Teach-to-One Math Model:** As we move into a paradigm for customization and personalization in education, Nathan Hale will be implementing the Teach-to-One Instructional model so students maximize instruction based on their individual learning modality. Moreover, students will engage in a personalized instructional program that is tailored to leverage achievement in an innovative and differentiated manner. Through a creative program design, students will be immersed in a “math lab” where their individualized plan will change daily based on their progress and trajectory with complex numeracy concepts. This will be implemented in grade six.

Roton Middle School:

- **Encore Program:** To supplement the core curriculum, Roton Middle School chose to adopt an “Encore Program” in grade six. The Encore Program will feature students taking courses based on their interest. Students are provided with an exploratory experience in a variety of courses that are designed for a semester. Roton Middle School leaders and practitioners will employ their Encore Program for one day a week in collaboration with Norwalk ACTS.
- **Global Studies and Project Lead the Way Theme:** Roton Middle School has a distinct and robust World Language program that currently exists in their model. To couple their World Language opportunities, Roton will create a Project Lead the Way theme (STEM) where student participate in a science program focused on experimental learning using the NGSS (Next Generation Science Standards) as a framework for instruction. To support the “feeder” trajectory of Brien McMahon High School educational programs (e.g. Center for Global Studies, PLTW track, or Medical P-TECH), Roton will expand each of these pathways to create two “Small Learning Communities” that will feature two themed “houses” focused on Global Studies and STEM. Students will choose a pathway in grade seven that will lead into one of the innovative program offerings at Brien McMahon High School.

Ponus Ridge Middle School:

- **Global Studies:** To support the “feeder trajectory” for the Center of Global Studies at Brien McMahon High School, Ponus Ridge will expand World Language opportunities for students in grade six. The focus on expanding World Languages in each subsequent year will provide students a 6-12 pathway in Global Studies. This will start in grade six in the 2016-2017 academic year.

Measuring Academic Growth:

The Middle Grades Design and Improvement Initiative is a comprehensive process that has multiple variables and design elements to raise student achievement. To measure student growth, the Norwalk Public Schools will be utilizing both performance (i.e. Lexile growth in accordance to the Scholastic Reading Inventory and Math RIT growth on NWEA MAP Assessment) and perception (i.e. Panorama Climate Survey) data to measure student academic growth within the design initiative. This triangulation of data metrics will provide conclusive information on the rate of acceleration with academic achievement (i.e. rigor and relevance) as well as how students are connected with their school community (relationships).

SMART Goals:

1. 60% of students in grade six will make at least one year growth by the end of the 2016-2017 academic year as evidenced on the Scholastic Reading Inventory (SRI).
2. 60% of students in grade six will increase their RIT score by 80 points by the end of the 2016-2017 academic year as evidenced on the MAP Math Assessment.
3. The average rate of climate improvement from grade six will increase by 50% based on the spring administration of the Panorama Survey.