



A District Transformed: The 10-Year Accomplishments of Middletown, New York A Majority-Minority Public School System

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Middletown, New York Public Schools. The Middletown, New York public school district is a high needs, high poverty and high minority school district that serves 7,200 students and has been recognized as a successful turn-around district. Despite the challenges inherent with a high-poverty student population—and in the midst of state-mandated education reforms—Middletown has increased its student results and performed on par with or better than average statewide achievement scores. Over six years, this 74% free-and-reduced meals eligible district (a measure of family incomes below the US-defined poverty limit) has increased its Regents Diploma graduation rate from 76% to 84% and doubled its Regents Diploma graduation rate for students with disabilities from 20% to 39%. Middletown's across-the-board achievement gains required the State Education Department to remove Middletown from New York State's "schools in need of improvement" lists and acknowledge the District's 'good standing'.

At the same time that the proportion of low-income families jumped from 59% to 74%, the district's successes have come at less per-pupil spending than other high-needs districts and less spending than the average for all New York State public schools. Middletown's per pupil expenditure is \$17,095, \$1,084 less than other high-need districts and \$1,270 less than the average for all schools in New York. Middletown (also referred to as "ECSDM") is also in the top five percent of technology-investing districts in the US (\$12 million in related expenditures) and will be fully wireless and cloud-based by 2016. Middletown is the only district in central New York that is growing. Kindergarten enrollment, which had ordinarily been 400, is now 600. The District is a member of the national *League of Innovative Schools* and, by invitation, of the *Digital Promise* group of districts.

The US Department of Education used a national competition to select a very small number of outstanding districts that would test the district's proposed school improvement initiatives. Among 14,000 districts, Middletown was one of the 14 winners selected for five years of "Race-to-the-Top" support beginning in 2012. The Federal grant has supplemented Middletown's budget by 2.6% and that increment is associated with the gains reported here.

Middletown's *Race-to-the-Top* Grant. Middletown's RTTT activities are a set of linked and complementary teaching/learning initiatives powered by digital advances from the District's historic leadership in technology and from RTTT-funded initiatives. The over-arching goal is to personalize learning for every student. The array of RTTT-funded sub-programs is as follows.

1. Blended Learning merges face-to-face instruction with digital resources
2. Two-Year Kindergarten extends Kindergarten for a second year for ELL and other learners
3. Mid-Point classes apply proficiency requirements for student promotion to identify students at grades 2, 5 and 8 who then have extended teaching and learning
4. Math Specialist training for elementary teachers adds this expertise to their Literacy specializations and guarantees that every elementary student is taught math by a certified math specialist
5. Mastery Class instruction at the 3rd Grade replaces seat time as a measure of promotion with mastery of standards for elementary students and includes instruction with 1:2:1 *Chromebooks*
6. 1-to-1 Mobile learning devices (*Chromebooks*) are available to students in grades 8-11 with support for teachers and for the students by Technology Integration Coaches
7. Syracuse University Project Advance (SLPA) increases the rigor of instruction at the high school and adds advanced college and career-related coursework
8. A series of immersive interactive computer simulations (a) to orient candidates to teaching in Middletown and (b) to help high school students preview and practice skills they will need to succeed in community college
9. “Big Data” is an initiative with predictive modeling and relevant metrics pushed to families and caregivers through the district’s dedicated parent portal.

The following sections summarize the findings of the RTTT sub-programs.

1.0 Blended Learning. Blended Learning combines the strongest aspects of teacher-mediated and computer-augmented instruction including, among other techniques, “flipped instruction.” Middletown required teachers to complete professional learning sessions about Blended Learning after which their students became eligible for individual *Chromebook* mobile devices.

The next two tables summarize the grade-by-grade Reading performance as measured by New York State and by NWEA MAPs tests for two groups of students – the ‘all’ group and the ‘standard’ group. The columns in the table show student performance by increments of Blended Learning instruction – did they have it for two-years? For the most recent year? For only the 2014 year? Or not at all (‘neither’). In all cases, performance with Blended Learning is compared to the group without Blended Learning. The green-highlighted cells show where students with the indicated amounts of Blended Learning instruction do better than those without. In almost two-thirds of the possible comparisons (64%), students taught Reading with Blended Learning do better than those without.

New York State Average Test Scores Spring 2015 – Reading by All Students and 'Standard' Sub-group										
Grade	All Students					'Standard' Student Subgroup				
	Control		Treatments			Control		Treatments		
	Neither	2013-14 Only	2014-15 Only	Both	Years	Neither	2013-14 Only	2014-15 Only	Both	Years
3	290	285	273	283	283	277	261	278	286	286
4	287	244	293	284	284	289	228	293	280	280
5	293	310	285	273	273	294	312	299	269	269
6	279	289	280	282	282	280	289	281	282	282
7	280		291			280		292		
8	291		288			293		288		

NWEA MAP Average Test Scores Spring 2015 - Reading					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
K	152	159	157	161	
1	171	172	178	172	172
2	182	188	189	190	191
3	195	195	191	196	198
4	199	185	205	196	195
5	211	218	209	204	201
6	210	213	209	211	211
7	213		219		219
8	217		219		

NWEA MAP Average Test Scores Spring 2015 - Reading					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
K	152	159	157	161	
1	171	172	178	172	172
2	182	188	189	190	191
3	195	195	191	196	198
4	199	185	205	196	195
5	211	218	209	204	201
6	210	213	209	211	211
7	213		219		219
8	217		217		

The next two tables show similarly formatted data for Math instruction with Blended Learning. For Math taught with Blended Learning, the results are even stronger – 73% of the comparisons favor the students taught Math with Blended Learning. For both the Reading and Math, 3rd grade performance is most in need of improvement.

New York State Average Test Score Spring 2015 – Mathematics					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
3	301	300	290	294	295
4	284	291	295	282	276
5	288	285	297	297	304
6	282	291	287	298	298
7	293		297		298
8	290		295		

New York State Average Test Score Spring 2015 – Mathematics					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
3	296	296	293	295	295
4	290	293	290	282	276
5	292	306	292	297	304
6	282	291	282	298	298
7	293		293		298
8	290		290		

NWEA MAP Average Test Score Spring 2015 – Mathematics					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
K	151	158	156	158	
1	171	175	180	174	174
2	194	199	197	195	196
3	200	198	197	198	199

NWEA MAP Average Test Score Spring 2015 – Mathematics					
All Students			“Standard” Student Subgroup		
Control			Treatments		
Grade	Neither	2013-14 Only	2014-15 Only	Both Years	
K	151	158	156	158	
1	171	175	180	174	174
2	194	199	197	195	196
3	200	198	197	198	199

teachers to add math specializations to their instructional repertoire. Neither ELA nor Math shows progress in the 2015 fifth grade. The English/Language Arts area is also problematic in the 7th grade.

The evidence from the MAPS tests corroborates that of the NY State tests – the Mid-Point strategy is closing achievement gaps. There are 18 comparative test results for grades K through 8 (nine for ELA and nine for Math). For 15 of the 18 (83%) achievement areas, Mid-Point students are catching up to their ‘standard’ peers. In fact, for 2015, the Mid-Point student average exceeds that of the ‘standard’ students for English/Language Arts in Kindergarten and for Math in Kindergarten and grades 1 and 2. The Mid-Point students have the same achievement as the ‘standard’ students in Grade 2 ELA and Grade 3, Math. Across the nine tested grades, for English/Language Arts, Mid-Point students close the gap: for Mathematics, they narrow the gap in six of the nine grades tested. For the 5th grade topics, the MAPS data parallel the issue with 5th grade achievement.

4.0 Elementary teachers as math specialists. This RTTT-funded program uses a contractor (*MathWorks*) to add expertise in teaching mathematics to the District’s long-standing emphasis on the expert teaching of literacy. At the end of the 2015 academic year, 94% of the elementary teachers reported receiving assistance from *MathWorks*. All students in elementary schools are taught Math by teachers who are certified as Math specialists, that is, while not all teachers in Middleton’s elementary schools have completed training to be certified as Math specialists, no student is taught Math except by a certified Math specialist.

The data for elementary grades Math achievement is reported in the “Blended Learning” section above about elementary grades Math achievement. The size of the teacher group *rejecting* the singleton, ‘all topics generalist teaching’ model has tripled during RTTT (from 9% to 32%). In 2015, half the teachers believe that “Students will be more successful when they are helped by teams of Math and Literacy specialists.”

At the beginning of RTTT, more than half the teachers said they didn’t have enough time to “become expert in another area.” by the end of 2015, that group had declined to about one in four. Teachers credit *MathWorks* with impacting their instruction. Fully 85% say it has changed their teaching: 47% are in the most enthusiastic, ‘strongly agreed’ category. Ninety-five percent of the teachers say *MathWorks* professional learning is either ‘above average’ or ‘one of the best’ they have experienced.

5.0 Mastery Classes. Middleton’s “Mastery” program provides challenging opportunities for higher-achieving students just as the Two-Year Kindergarten and the Mid-Point programs provide opportunities for lower-achieving students. Students in the Mastery program are not advanced according to elapsed weeks of schooling time defined by the conventional grade intervals (“seat time”). Instead, they can move across the curriculum as quickly as they demonstrate mastery with the concepts and the curriculum. Mastery students have previously high scores in ELA and Math; they have *Chromebook* personal devices, a ‘tech integration curriculum’ and two teachers – one a Literacy and one a Math specialist.

In all cases, Mastery students outperform others, an indication of the efficacy of the District’s selection process and a validation of the intent to provide additional opportunity, additional growth to these students. We have documented the cumulative effect of this part of Middleton’s individualization strategy with the group that has had the benefit of Mastery class attention for the two years since the beginning of the RTTT grant. The average scores, year-over-year, for both ELA and Math are always higher than the comparison group and increase slightly. Moreover, for the group that in 2014-15 had the benefit of only a single year of Mastery class teaching and learning, compared to the ‘standard’ group, the students in the Mastery class have higher achievement for both ELA and Math.

6.0 1:2:1 Mobile devices – teachers. In 2013, every teacher received an Apple iPad. To facilitate the use of technology, Middleton initially concentrated teacher attention on daily management or productivity purposes, e.g., attendance, discipline reporting and grade book applications. Instructional applications are expected to follow as teacher appreciation and familiarity increased. Technology integration coaches (TOSAs) have guided the 1:2:1 initiative first for teachers and increasingly for students, as necessary.

The proportion of teachers reporting that their “daily tasks are easier with the iPad” has grown from 59% to 63%. Three-fourths of the teachers report that communications are easier now with the iPads. For productivity (grading, recording and reporting assessments, etc.) 68% now report making more use this year than last year. For instruction, the similar proportion is 47%, almost half the group. Thus, productivity use is growing and instructional use is growing.

Nonetheless, instructional applications are still a work-in-progress. For example, using these devices to “Present instruction” is eighth on a list of ten reported applications: only one teacher in four is making frequent use for presentation. The relatively meager reported use is curious in a faculty that is increasingly embracing Blended Learning. Moreover “communicating with parents” and “...with students” are at the bottom of the list.

1:2:1 Mobile devices – Students. Beginning in the fall of 2014, with RTT-funding, the District began to distribute 1300 Chromebooks to students in selected grades (not including grade 12). For the elementary grades, Chromebooks are rotated among classrooms and do not go home with the students. Teachers qualified themselves and their classes to receive the Chromebooks by the successful completion of required Blended Learning professional development.

We asked teachers to assess the extent to which Chromebooks had made a positive difference or a negative difference in dimensions of student learning. With respect to negative impacts, never more than one teacher in five has concluded that the Chromebooks impeded any of the component student behaviors. More than half the teachers credit Chromebooks with increasing the desire to learn, half say student behavior has improved; and the breadth, depth and final product of students’ assignments are all reported to have been increased by Chromebook utilization. Time savings and better assessments are other teacher-identified outcomes.

7.0 High School Rigorous Instruction: Syracuse University Project Advance (SUPA). The District has a long-standing concern about the rigor of instruction in the high school. In pursuit of that, ECSDM contracted with Syracuse University. SUPA is an advanced placement, college course credit opportunity from Syracuse University. Syracuse University certifies and annually re-certifies that selected ECSDM teachers can offer college level credit-bearing courses. The preparation for certification requires as much as a week of summer coursework for teachers. ECSDM pays the tuition for students from low-income families who wish to take SUPA courses.

- Rigorous course enrollment has doubled since the launch of Middleton’s RTT project.
- Half of all the SUPA enrollment are students from low-income families.
- As many Black and Hispanic students are now college & career ready as White students.
- The proportion of SUPA students meeting the State’s criteria for English/Language Arts and Math is double that of all high school students.

8.0 Big Data. Middleton is developing a predictive/prescriptive analytics that aim to forecast the successes and challenges that lie ahead for students and groups of students. If successful, the district will be able to preemptively provide interventions to students who are falling behind or off course. The District is also fully wireless and cloud-based.

9.0 Web-enabled, immersive and interactive computer simulations. The RTTT grant supports the District in creating and deploying a series of next-generation computer simulations for school improvement. In 2014, the District produced “Candidates for Teaching in Middleton – An Orientation to the District.” The simulation introduces candidates who may be interested in teaching in the District to the challenges and opportunities, which are unique to Middleton. This simulation uses full-motion video to present scenarios about teaching: the candidate makes choices and sees immediate consequences linked to their specific choice. Algorithms running in the background compile a profile of each candidate’s strengths and weaknesses according to a conceptual framework adapted from the work of Charlotte Danielson.

The District is currently developing a simulation for high school students who may attend community college – “Succeeding in Community College: Preview and Practice for 9th Graders.” Guidance programs in most high schools assume that their graduates will attend 4-year residential colleges: community college attendance is distinctly different (commuting, paid employment, etc.). This simulation is designed specifically to allow 9th and 10th graders to preview and practice the skills that they will need to succeed in community college.

Summary. Middleton is recognized by the US Department of Education as an exemplar of the school reform strategies that underlay the *Race-to-the-Top* legislation. The District’s transformation is a reflection of the following strategies and tactics.

Deep improvement. Middleton does not put single initiatives in front of children with the expectation that their learning will improve. In contrast to the singleton approach of others, ECSDM uses multiple interventions in multiple arrays to provide learning opportunities for its students – “high expectations coupled to rich opportunities” is a phrase common among the District’s leaders. For Blended Learning, the sequence is five layers deep.

Convergence. Middleton uses a strategy of resource concentration. Several of the Middleton RTTT sub-programs have a common purpose – to augment current instruction in order to ensure student’s subsequent success. Concentrating multiple prior initiatives and the RTTT-funded initiatives, e.g., technology for teaching and learning, literacy specialization, evidence-based instruction and individualization of instruction are both continued from earlier initiatives and focused with the new ones. The result is a base for RTTT activities. The project has moved faster because teachers haven’t had to learn how to manage data, analyze data and apply data to student’s individualization.

Extending and complementing RTTT-funded initiatives with locally funded initiatives. Single interventions have never improved American schools Middleton eschewed a “pilot” strategy and committed from the beginning to District-wide transformation – all students, all topics, all grade levels, and all buildings. The District builds on the RTTT activities to increase its own organizational capability with locally funded initiatives. The table summarizes what the District, on tax-levy resources is providing.

ECSDM-Funded Improvement Initiatives That Extend and Complement RTTT Initiatives: 2014-15	
Initiative	Cost Estimate
Literacy specialists, on-going professional learning to complement the RTTT-funded Math specialists	\$1,266,215
iPads for teachers (2013-14 expenses)	\$127,790
Blended Learning has been extended to 60 additional teachers	\$354,604

Mid-Point classes have been extended to the early grades (K, 1, 3, and 4) and to the middle grades (6 and 7) by adding two new teachers on special assignment positions (TOSAs) for Math and for ELA	\$2,321,050
1-2-1 Mobile learning devices (5,000 <i>Chromebooks</i>) have been purchased for grades 1 through 7 with four added TOSAs plus other per diem staff to train parents and students	\$614,794
To prepare middle school students to succeed with more rigorous instruction at the high school (the SUPA sub-program), Middletown has created and staffed a 10-week “wheel course”	\$13,641
Total	\$4,698,094

[https://interactiveinc.sharepoint.com/Administration/Dale/Glasgow 2016/paper 122915.docx](https://interactiveinc.sharepoint.com/Administration/Dale/Glasgow%2016/paper%20122915.docx)



Our Vision of Excellence 2017

Putting Young People First



In our Catholic school community, we teach that we are all created by God who has lovingly enriched our lives with unique talents and great potential for doing good in the world. In this context, the development and delivery of Curriculum for Excellence is focused on achieving our Vision of Excellence stated below:

We will deliver:

- The highest levels of attainment and achievement for every individual young person
- Positive aspirational destinations for all our young people as they leave school.

We will improve the lives and life chances of all our young people.

We will do this through:

Teaching and Learning

We create a learning culture of the highest aspirations and motivation, where all young people are fully engaged and challenged.

In every classroom, varied and high ordered teaching and learning develops a thirst for learning in all our young people to ensure they achieve their potential to become successful learners, confident individuals, responsible citizens and effective contributors to society. In every learning area, our learners experience active and collaborative learning/experiences; are given responsibility for their own learning and opportunities to co operate with others in that learning.

Our staff ensure that all learning experiences are meaningful to the digital generation and develop skills and knowledge.

Ethos and Life of our school

We create a safe, secure and happy environment in which young people will thrive, built on mutual respect and love.

Our Catholic values and spirituality permeate every aspect of our school life and we pray together as a community. As a community, we reach out in charity, in compassion and in respect to others at a local, national and global level.

Staff develop and nurture positive relationships founded on the highest expectations and standards of success

Our young people know our highest expectations and standards of success and make these their own.

From do your best - challenge yourself every day

tracking system = assessment

pupil voice strategy
↳ about learning

classroom observation system
↳ 1 hour in Sept & 1 hour in May
↳ goal agreed

→ much to lead to improvement

loyalty → while you're here, you talk up the school

teachers self evaluation
↳ question → answered soon after the report back
lost with critical friend
~~start~~ student asked how lesson was changed for the

The voice of our young people is central to the on going improvement of our school.

Opportunities for Personal Achievement

As part of their Learning Journey through our school's curriculum, our learners are offered an informed range of choices, a wide range of courses and pathways to achievement.

We develop high quality partnerships to enable our curriculum to offer the widest possible range of academic and vocational courses to ensure all our young people are given equal opportunity to maximise their potential.

Achievement both within and outwith our school is recorded, celebrated and rewarded.

Assessment

There is a coherent approach to Assessment is For Learning across the whole school ensuring our young people are given a clear picture of what they should learn and the criteria for success in every lesson.

Staff work together to ensure that our young people experience high quality assessment through teacher, self and peer assessment, across all subjects.

Our staff will provide the highest quality feedback to our young people giving them a very clear understanding of their strengths and learning needs and enabling them to set appropriately challenging targets for themselves.

Personal Support

All staff know each individual young person's learning needs and put in place coherent support which allows them to thrive and achieve within our school.

Our staff work with our partner agencies to provide integrated services to support young people and their families and to break down barriers to success.

Our school home links are extremely important to us and we build positive relationships with parents and carers of our young people

Professionalism and Professional Development

Our staff are committed to self evaluation to identify ways that we can improve our professional skills and knowledge to the benefit of our young people.

Our staff use Professional Learning and Development to stay at the forefront of cutting edge thinking and practice.

Our staff share good practice through classroom observation, improvement groups and professional dialogue both within our school and with colleagues in other establishments.

Our staff collaborate on the improvement of our school and are leaders, in whatever way they are able, in that improvement.

Our staff are loyal, positive ambassadors for our school.

75% of pupils from 15% of most deprived area

take fear away from staff
to call out things, if it works fine
otherwise we'll try spg etc
200m point at certain point (2017)

Steven Corey

Education is golden key for life

21% higher education

33% (now)

Could it be good enough for your kids?
if not - not ok for school

vocational education for everyone

curriculum for excellence!
broad general education
till
- 15
then higher

uniform -> great for equity
great for pride

33% in 18 years / 27% for outstanding area / 90 have placement request

alumni club -> 88% had and talk to pupils -> powerful