

Transforming Teaching through Arts Integration

AI Implementation Results: Middle School Reform through
Effective Arts Integration Professional Development

Introduction

Research has shown that implementing arts integration helps open the door to multiple teaching strategies that correspond with greater correlation to various learning styles and make it possible for teachers to engage every child in active learning. Furthermore, studies demonstrate that arts integration raises student achievement and engagement in students from both low and high socioeconomic backgrounds.(Catterall, Dumais, & Hampden-Thompson, 2012) With this knowledge in mind, we, the administrators and leaders in the Anne Arundel County Public Schools district chose to embrace arts integration as the vehicle for whole school reform at Wiley H. Bates Middle School in Annapolis Maryland, a school that was on the brink of failure. We knew that the key to success would be creating a whole school culture where teachers, administrators and support staff alike champion arts integration as means to differentiate instruction to support students in the acquisition of critical thinking skills. However, there were very few models of effective whole school arts integration implementation available, so we decided to build our own.

Using funds awarded by the 2007 Arts Education Model Development and Dissemination (AEMDD) grant, Anne Arundel County Public Schools (AACPS) designed the Supporting Arts Integration learning for Student Success (SAILSS) project as a middle school model of full-school arts integration. Combining professional development in arts integration (AI) with a multiple-disciplined approach that incorporates thematic interdisciplinary teaching with arts instruction, the SAILSS project offers opportunities for students to learn and experience greater academic and arts success.

Our AI model included the following key components:

1. **Commitment by the school** administration to implement AI and use high quality arts education as the central focus of school reform;
2. Intensive and ongoing **professional development** (PD) to build teacher's buy-in, knowledge and skills;
3. Targeted support for AI by a school based **Arts Integration Specialist and Team**;
4. **Collaborative planning** and curriculum mapping focusing on opportunities to integrate the arts as well as data analysis of student performance to identify where students have the greatest challenges and target standards for arts integration;
5. **Collegial co-teaching** with arts teachers and artists in residence working side-by-side with core content area teachers; and
6. **Sharing community involvement** through celebration of student work and success.

Following these components allowed us to design and implement a true arts integration program that would incorporate the learning of each differentiated art form and subject area. Weaving the arts throughout the curriculum where natural correlations already exist helped support a deeper understanding of all content areas for both the teacher and the student.

During the 2010-2011 school year, our SAILSS model was implemented in Wiley H. Bates Middle School (Bates), a struggling grade 6-8 AACPS Middle School, as a tool for school reform and student growth. Wiley H. Bates Middle School located in Annapolis Maryland, is part of the Annapolis High School feeder system, and serves a diverse community that includes five nearby federal housing project communities. Four out of the five elementary schools that feed into Bates are designated as Title I schools and 48% of the students at Bates qualify for Free and Reduced Meals (FARMS). In addition, the population (749 students) of the school itself is extremely diverse with a high minority population and a high percentage (18%) of students receiving special support (Table 1).

School	Male	Female	Asian	African American	Hispanic	Two or more races	White	Special Education	English Language Learners
Bates	44%	56%	3%	31%	23%	4%	39%	8%	10%
AACPS	51%	49%	4%	20%	10%	5%	60%	9%	>5%

Source: <http://www.mdreportcard.org>

In the fall of 2010, Bates Middle School did not meet Adequate Yearly Progress (AYP) for the third consecutive year, indicating that Bates was not on track to meet Anne Arundel County’s goal of 100% proficiency by 2014 for No Child Left Behind. In addition to indicators of a struggling school climate, such as a high number of referrals, students at Bates were below the county average in achievement on the Maryland State Assessment (MSA) for Reading and Mathematics (Table 2).

	Grade	Wiley H. Bates Middle School	AACPS Middle School Average
Mathematics	6	63%	79%
	7	54%	72%
	8	52%	69%
Reading	6	65%	79%
	7	55%	75%
	8	47%	74%

With scores 14%-27% behind the county average, Bates was marked for Corrective Action (the third and highest tier of school improvement) by AACPS. Believing that the arts have the potential to improve the learning process for all students, Bates Middle School’s administration, supported by Anne Arundel County Public Schools, elected to structure the improvement of instruction at the school around the concept of infusing arts integration strategies in all courses and classes.

We believed that by empowering teachers through the PD-focused SAILSS model of arts integration, Bates Middle School could build the teacher capacity to increase student engagement in the arts, improving school climate and increasing student achievement in mathematics. To test this hypothesis, we designed a quasi-experimental study that compared school growth at Bates with a control school where the AI model was not fully implemented. This article reports on the qualitative and quantitative findings of that study. Through this paper, we examine the middle school SAILSS model as it was implemented in Bates Middle School, the research methods used to evaluate the success of the project, and the encouraging finding of our research that pointed to Arts Integration as a successful model for middle school reform.

Implementing the SAILSS Model in Bates Middle School

In 2010-2011, Bates Middle School developed a School Improvement plan that delineated the school’s commitment to implementing a model of arts integration as an action step towards improving instruction for all students (Figure A).

Figure A. Arts Integration and the Wiley H. Bates Middle School Improvement Plan

We believe that our efforts in grade level collaboration, pre-AP strategies, identification and support of any and all students with a potential for higher level coursework, Thinking Maps, Arts Integration, continuous data analysis, and targeted intervention will help us eliminate the achievement gap at Bates.

Action Step	Person Responsible	Implementation Team	Resources/Staff Development Needed	Monitoring Procedures/Evidence	End Date
1. All teachers will integrate the arts into lesson plans: <ul style="list-style-type: none"> • Participate in monthly professional development for AI • Incorporate AI into weekly lesson plans <ul style="list-style-type: none"> ○ Plan with AI Specialist ○ Team teach with AI Specialist • Record all AI activities on an Arts Integration Activity Log and submit it quarterly. • Document one AI lesson per quarter using an AI lesson plan or display template. • Showcase student work related to AI • Designate an AI area inside and outside of the classroom. • Display current student work including documentation of connected objectives, process and product at quarterly showcases. 	Department Chairs Arts Integration Specialist Administration	All Teachers and teams	Professional development calendar Arts Integration Center AI Activity Log template AI lesson plan templates AI display templates Quarterly Showcases Curriculum Maps	AI Activity Logs Quarterly lesson plans and displays Observations by administrators Current displays in classrooms and hallways	June 2011

Teachers were provided with information which outlined the School Improvement plan and the expectations of those in the school while under Corrective Action, including:

- A commitment to continue the work to meet the needs of all Bates students;
- A commitment to the instructional components of AI; and
- Participation in mandatory AI professional development throughout the year.

With this information, teachers could elect to remain and agree to these terms or volunteer to be excused from Bates. This action resulted in a staff change that brought 27 new teachers, including an Arts Integration Specialist, to Bates in the fall of 2010, all of whom were Highly Qualified in the content area they were assigned to teach. Bates Middle School further affirmed their commitment by incorporating the arts into their school Mission Statement:

Inspire—Encourage—Connect

Together at Wiley H. Bates middle School, we **inspire** students, through rigorous arts-infused curriculum, to believe in themselves and reach beyond their expectations; **encourage** students to take an active part in their learning and to develop life-long learning goals and appreciate for the performing and visual arts; and **create** connections with the wider world through technology and the arts.

With the full support of Anne Arundel County Public Schools, the administration, teachers, and staff transformed Bates Middle School into a fully arts integrated school with focused professional development, support from an Arts Integration Specialist, collaborative planning,

collegial teaching, and sharing. Through this integration, students were afforded increased opportunities to work with and experience the arts.

Professional Development

Working with the SAILSS project team, Bates Middle School organized a series of PD workshops for the school including summer sessions, Round Robin half-day arts integrated workshops, and Saturday workshops. Many of these workshops were taught at Bates by highly qualified trainers from such institutions as the Kennedy Center’s Changing Education Through the Arts (CETA) and the Arts Education Alliance for Maryland Schools (AEMS). Others, such as Math in the Art Museum, were hosted by the Baltimore Museum of Art and were voluntary for interested teachers to attend. In addition, a cohort of 12 motivated teachers attended a weeklong summer institute run by the Maryland State Department of Education (MSDE) and the Maryland Artist Teacher Institute to become AI leaders in the school. These teachers presented to their colleagues at PD sessions, implemented AI into their classrooms, and worked with the school to garner interest and develop strategies for AI. From fall 2010 to spring 2013, Bates offered a myriad of PD workshops covering a range of topics from Defining Arts Integration, to music in the classroom, to arts integration with technology (Table 3).

Table 3. Arts Integration Professional Development Opportunities
Three-day summer mini conference
<p>Goal: Introduce teachers to arts integration and set the stage for teachers and staff at Bates to understand the new importance of AI as the model for school reform.</p> <p>Workshops Offered:</p> <p>Presented by the Kennedy Center:</p> <ul style="list-style-type: none"> • <i>Laying a Foundation: Defining Arts Integration</i> • <i>Reading Portraits as Biographies</i> • <i>Fact-Filled Role Drama: A Dramatic Approach to Reading Comprehension</i> • <i>Exploring Points of View through Drama: Walking in Another’s Shoes</i> <p>Presented by Bates AI leaders and experts in arts integration around the county and throughout Maryland:</p> <ul style="list-style-type: none"> • <i>Artful Thinking</i>, based on Harvard’s <i>Project Zero</i> • <i>Moving from an Arts Enhanced Lesson to an Arts Integrated Lesson</i> • <i>Literacy Quartet</i> • <i>Curriculum Mapping</i>: analyzing the curriculum for natural connections between the arts and content subjects. <p>Presented by directors from the Baltimore Museum of Art and the Walters Art Museum:</p> <ul style="list-style-type: none"> • Incorporating museum multimedia interactive websites into the middle school curriculum.

Table 3. Arts Integration Professional Development Opportunities (continued)

Year-Round Workshops and Professional Development Sessions

Goal: Provide ongoing arts integrated workshops on a variety of art forms and content areas to support instruction throughout the school.

2010-2011 Workshops Offered:

- *Documenting Arts Integration:* overview and hands-on practice for documenting your Arts Integration activities
- *Cooperative Poetry:* Learn how to use visual arts and images to foster creative thinking in all subject areas
- *Process Drama:* Go beyond games and tableau; learn drama strategies that ask students to “stand in someone else’s shoes” in order to consider role, concept and conflict.
- *Art and Drama with Puppetry:* Learn how to incorporate marionettes and shadow puppets into your curriculum
- *The BEST of Dance:* Learn the BEST elements of dance and how to incorporate them into classroom lessons
- *Artful Thinking:* Practice using the Artful Thinking Routines beyond I see, I think, I wonder!
- *Music In Your Classroom:* Review the elements of music and how to use music boxes to create lessons
- *AI Resources: Posters, Postcards, and Photography:* Work with the newest resources and learn what to teach about photography with lessons involving student use of digital cameras and flip cameras.

2011-2012 Workshops Offered:

- Asian Brush Painting
- Science Water Color
- Jazz in the Harlem Renaissance
- Arts Integration Strategies for Science, Math, Language Arts, and Social Studies
- Process Drama for LA Novel Units
- Digital Cameras in the Classroom
- Technology and Arts Integration
- Hip Hop Geometry

Teachers were also given access to Towson University’s Arts Integration Post-Baccalaureate Certificate in Arts Integration Program (PBC-AI). This program is an interdisciplinary approach to arts education incorporating a variety of art forms (art, theatre, dance, music) as they apply to teaching across the curriculum in Maryland’s schools, K-12. This certificate supports Towson University’s mission to provide programs that enhance the teaching skills and professional development of educators and teaching-artists. As of June 2013, four Bates teachers have earned their Post-Baccalaureate Certificate, with another four teachers currently earning credits towards this certificate. The current full cohort of 25 teachers includes both elementary and middle school teachers and there is a waitlist for teachers from across Anne Arundel County.

One of the most exciting professional development components of the SAILSS model at Bates were the annual 21st Century Arts Integration Institute and the Teaching Artist Institute. Hosted in partnership with the Arts Education in Maryland Schools Alliance (AEMS), Young Audiences of Maryland and Anne Arundel County Public Schools, the 21st Century Arts Integration Institute brought content classroom teachers, arts teachers, and administration together for a week of arts integration training at the beginning of summer. Here, participants attended AI workshops and seminars with AI experts from across the state to learn techniques and strategies for integrating the arts into their classroom. During this time, participants were

also given the opportunity and support to develop arts integration lessons that matched their content background. Simultaneously, artists were invited to attend through the Teaching Artist Institute, hosted through a partnership between AACPS and Young Audiences. In the Teaching Artist Institute, artists trained to become Teaching Artists by attending a series of PD sessions and planning AI lessons alongside the 21st Century Arts Integration Institute participants.

During this week, participants from both institutes could elect to become part of an Arts Integration cohort. Here, the selected teacher was paired with a teaching artist to collaborate and support the development of an Artist in Residency program specific to the teacher's content and the artist's art form. Once developed, each residency could be implemented, at least in part, by the classroom teacher on his/her own and by the artist in other schools. The cohort then implemented their newly designed lessons with a group of Bates students during the weeklong *Imagination Vacation Summer Bridge Program*. Over the course of this summer bridge program, offered at Bates Middle school, teachers and teaching artists were able to present their residency lessons to the students in a "lab school" setting. *Imagination Vacation Summer Bridge* week's schedule built in time for the teacher-artist pairs to revise their lessons based on its real-time implementation facilitated by Young Audiences staff and Education Director who served as the administrator for the summer bridge. At the end of the week, students gave a final performance and teachers and teaching artists met with parents and members of the community for sharing experience.

In addition to the focused, year-round professional development workshops, arts integration became a regular part of each teacher's planning time. Each month, a minimum of one faculty meeting was dedicated to AI training, offering differentiated content for both new and experience teachers. Additionally, one collaborative planning period per grade per month was earmarked for Arts Integration presentations and activities. Teachers who attended outside workshops were encouraged to present new ideas and strategies to the other teachers in the school.

Support from the Arts Integration Specialist

The full time Arts Integration Specialist was hired in the 2011-2012 school year and became the voice of Arts Integration at the school, working closely with administration and participating as a member of the *School Improvement Team* and the *School Leadership Team*. While not formally trained in the arts, this individual was an integration specialist with a Post-baccalaureate Certificate in Arts Integration and came with a strong background in staff development, instruction and school improvement experience at Bates. Figure B outlines the support provided by the AI Specialist.

Figure B. Roles and Responsibilities of the AI Specialist

The AI Specialist:

- Worked with teachers to map the curriculum for AI;
- Participated in collaborative planning meetings to brainstorm, plan, and implement lessons;
- Co-taught and modeled lessons;
- Planned and provided staff development;
- Located and coordinated resources;
- Created and maintained an AI Tool kit (digital resources);
- Planned events such as the Quarterly Arts Showcase, International Arts Festivals and frequent school visits from other schools; and
- Applied for and received additional grants to fund AI lessons and projects.

Initially the Arts Integration Specialist not having formal arts training, was able to elicit the expert help from the highly qualified arts teaching staff that included two visual arts teachers, a dance teacher, a vocal and two instrumental music teachers . The model has sense developed to the new model of the AI school specialist, working with the arts teacher team to assist content teachers in developing arts integrated lessons during release planning time dedicated to arts integration planning. Content classroom teachers are able to submit requests for support in developing arts integrated lessons that address content standards identified as an area where students are struggling or where there is needed improvement for a particular class or group of students. The Arts Integration support team that is comprised of the Arts Integration Specialist and representative highly qualified art teacher in each art form: dance, music, theatre and visual art then plans and develops arts integrated lessons for the specific standards. The arts teachers are essential in planning true arts integrated lessons that address arts standards and content standards simultaneously. This model of targeting standards in which students' struggle with arts integration instructional strategies is proving quite effective. (Table 6)

Collaborative Planning and Collegial Teaching

Building on the ideas and strategies presented by the AI Specialist and PD workshops, collaborative planning among all staff became one of the cornerstones of the AI process at Bates. All department chairs were trained and committed to Arts Integration and so made it a regular and expected part of the conversation at every collaborative planning session. Because of its Corrective Action status, the Bates intervention model included in-depth analyses of student performance data at each content area and grade level. Based on these analyses, teachers determined where students were struggling and used curriculum mapping to address the appropriate standards with arts integration. Each quarterly marking period, every teacher was required to submit at least one arts integration lesson (formal lesson plan or visual display for the classroom or the Quarterly Arts Showcase) and a log of weekly arts integration activities. As exemplified in the figure below, teachers used AACPS Benchmark data (Achievement Series) as well as formative assessment to develop Arts Integration Activities that directly related to the content standards where a student was struggling.

Figure C. Sample arts integration activities and their corresponding content standard.

Arts Integration Activity	Content Standard	Achievement Series data % / (#) items
Abstract portrait: color, line, shape	3.A.3.d: Analyze characterization	63.2% (4)
Class Clown character		
Collage: Project Citizen community feel like if their policy passed -- balance	3.A.3.c: Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects characters	56.2% (2)
Artful Thinking (art post cards tree map)	3.A.6.a: Analyze main ideas and universal themes	59.6% (2)
Collage of self: texture, color	3.A.3.d: Analyze characterization	86.0% (4)
Artful thinking		
Tableau: topic of art -> theme statement -> character that reflects theme through dialogue	3.A.6.a: Analyze main ideas and universal themes (developed through character's thoughts, feelings, actions)	74.1% (2)
Artful thinking (how a title, subject, characters are elements of theme)		
Photography – compare characters (boy and girl Bedouin)	3.A.3.c: Analyze details that provide information about the setting, the mood created by the setting, and ways in which the <i>setting affects characters</i>	68.4% (2)
Reader's Theatre of short story	3.A.3.d: Analyze characterization	82.3% (4)
	3.A.3.b: Analyze events of the plot	42.2% (2)
Artful Thinking	3.A.3.g: Analyze internal and/or external conflicts that motivate characters and those that advance the plot	40.9% (1)
Artful Thinking	3.A.6.a: Analyze main ideas and universal themes	78.0% (2)
Artful Thinking (art of T. Cole) Drama/charades	3.A.3.c: Analyze details that provide information about the setting, the mood created by the setting, and ways in which the setting affects characters	63.3% (2)
Shadow puppets	3.A.3.b: Analyze events of the plot	66.7% (1)
With background scenery/setting	3.A.3.c: Analyze details that provide information about the setting, the mood created by the setting, and ways in which <i>the setting affects characters</i>	94.4% (1)
Artful Thinking		

Content teachers also met with support personnel, including the AI Specialist and AI Team, three times a week to create lessons and choose AI strategies that would address the specific needs of their classroom. Using a released period (provided by the administration), art, music, and dance teachers worked with the AI specialist to brainstorm, plan, and model lessons for content teachers across the school. Over the past three years, Bates has increased its arts staff to include 10 Highly Qualified teachers throughout all arts areas including visual arts, music, and dance.



Through the implementation of the SAILSS model, collaboration with Artists-in-Residence and teaching artists became a regular part of the Bates atmosphere. As opposed to guest artists, who only visit the school and its teachers for a few days, the Artist-in-Residence program brought trained professional artists from all

disciplines (dance, drama, music, technical production, and visual arts) into the school as long-term teachers, co-teachers, and collaborators for both staff and students. These Artists-in-Residence met with teachers regularly during planning periods to discuss where students were struggling and to brainstorm AI strategies to address these struggles. In addition, Artist-in-

Residence would co-teach lessons with in the classroom, modeling the ideas for the teacher and giving students the opportunity to interact with a professional from the field. One example was Teaching Artist Rob Levit who presented workshops and worked with math teachers on Math Arts Integration Project. Workshop attendees were unanimous in their praise of the outstanding quality of these sessions. He provided professional development for the math team for an entire school year, as well as created and implemented arts-integrated math lessons in classrooms. The prolonged residency allowed teachers to build a rapport with the artist. The result was a series of arts integrated lessons focusing instruction on Math standards that students had not mastered.



Sharing

To share the success of the SAILSS model, Bates implemented a Quarterly Arts Showcase to make learning visible to all members of the school and the community. During this event, parents and community members were invited to the school during the day to have lunch with students and see displays from Arts Integration lessons and performances from both AI classrooms and Performing and Visual Arts Magnet classes. These showcases allowed the community to see the success of the arts integration model, but also gave students and teachers an opportunity to highlight the creative work that had been accomplished over the quarter. Each showcase involved students and teachers from every grade.



Student Opportunities in the Arts

As the teachers and administration adopted arts integration as the model for the school, Bates was able to provide students with increased access to the arts as a regular component of

their school experience. Additional arts elective courses have been incorporated into the school



Increased arts course choices for students.

schedule expanding the students' options for concept and skill development in the arts. Courses include digital photography; digital media arts; film; fashion, costume and set design to name a few. One of the most noticeable changes at Bates is the increased opportunity for student performance. These performances not only showcase student's work to each other, but provide an additional opportunity for sharing each student's accomplishment with parents, partners, and the local community.

By working with local arts partnerships, Bates has also been able to provide frequent field trip experiences to local art museums, theater companies, and arts colleges and universities. The AI Specialist worked science teachers to coordinate bus trips to the Maryland Science Center to visit the interactive exhibit on Leonardo da Vinci's art and invention. Working directly with educational directors from the museums, the AI specialist and math teachers were able to plan a trip for the entire 6th grade class to experience Math in the Museum at the Baltimore



Students observe authentic artworks during Arts Integration field trips at local museums.

Museum of Art.

The weeks following the field trips

included lessons in the math classes that were based on the student's experiences with the artworks. Working with the educational director of the Walters Art Museum the AI specialist was able to bring the professional development offered by the museum to the school for all of the Bates teachers.



Student work from Science and Visual Arts AI lessons.

Many students have also participated in the Imagination Vacation Summer Bridge Programs and Summer Musical as well as art co-curricular programs such as art club, jazz band, Dance Company, drama club and architecture project of creating the outdoor classroom.

Research Methods

Evaluating the Model

To track the effects of our arts integration model on Bates Middle School, our external evaluators, RMC Research Corporation (RMC) chose a variety of cost-effective instruments. These instruments, along with notes about what they measured and how they were administered, are provided in Table 4.

Data Collection	Focus	When	Instrument
Professional Development	Identify intensity of treatment and participation	Year long	Project Director Log
Arts Integration Activities	Track development of curriculum components and activities	Year long	Teacher Log
Teacher Inventory	Assess teachers' perception of school climate	Spring	School-level Environment Questionnaire (SLEQ)—(a valid and reliable inventory that measure's teachers perceptions of psychosocial dimensions in the school environment developed Fisher & Fraser 1990)
Student attendance/behavior data	Indirect measures of engagement in learning	September	AACPS student database
Student academic performance data	Assess changes in student performance on mathematics and reading	Yearly	Reading and Mathematics Maryland State Assessment (MSA) results

These instruments collected both qualitative and quantitative data over time to measure explore the research questions. Because development of the SAILSS project began in the 2009-2010 School year, evaluators were able to track changes from before the AI model was adopted as a tool for school reform.

During the analysis, RMC thematically coded qualitative data using the Grounded Theory Approach (Glaser & Strauss, 1967), which develops themes and patterns in responses by breaking information down into categories with recurring words and phrases (Jurich & Taylor, 2012). RMC also used a comparison of means analyses to examine the quantitative change in standardized test scores between Bates and our control school and a regressive analysis to examine the change in student referrals at Bates. Changes in performance were measured longitudinally by using baseline data established before the start of the project. RMC used an Interrupted Time Series analysis to account for any shifts in performance data that occurred in conjunction with the implementation of Arts Integration (Jurich & Taylor, 2012).

Treatment and Control Groups

Because the project involved a full-school intervention, evaluators used a treatment-comparison design to compare our treatment school (Bates) with a control school not implementing the model. The control school was specifically chosen for its similar size, student demographics, and achievement levels. At the start of the project, both school had 12-16% mobility, a 93-94% attendance rate and a diverse population including 67-69% underrepresented Minorities and 45-50% qualifying for FARMs. In addition, of the students in grades 6-8 at both schools, only 46-65% of student scored at Proficient or Advanced levels in reading on the Maryland State Assessment (MSA) and only 52-74% scored at Proficient or Advanced levels in mathematics on the MSA. 56-61% of Teachers had either a Standard or Advanced Professional Certificate and 31% of classes at each school were not taught by Highly Qualified Teachers.

Results

As a result of the SAILSS model, teachers and administration at Bates Middle School participated in increased professional development opportunities and collaborated with Artists-in-Residence to develop a library of arts integrated lessons. In addition, the model offered students increased opportunities to engage in and through the arts. RMC's evaluation also revealed a positive correlation between the implementation of the SAILSS model at Bates and an increase student achievement on the MSA and the development of a more positive school climate, as indicated by teacher survey responses and decreased suspensions.

Observations of Arts Integration in the School

According to the Teacher Log and the Project Director logs, from the fall of 2010 through the Spring of 2012, Bates Middle School offered 24 in-house professional development activities and 63 off-campus conference and workshops. Some of these workshops were attended by over 70 teachers, with an average of 38 teachers attending each in-house PD session and an average of 8 teachers attending each off-campus conference/workshop.

Between 2009-2010 and 2012-2013, Bates Middle School has developed and tested 316 arts integration lessons. These lessons cover wide-ranging topics such as drama and mathematics (*Tableau: How to Show Angle Relationships and Find Missing Angles*, Grade 6), visual arts and science (*Seeing family traits in the Art of Joshua Johnson*, Grade 7), dance and social studies (*Footworks and the Roots of Diversity*, Grade 7) music and language arts (*Poetry and the Music of the Harlem Renaissance*, Grade 8), among many more. Each year, teachers also had the opportunity to work with an artist-in-residence. These artists worked with each department for 3 to 12 days (average 5 days) and developed lessons for each core content at each grade level. With the development of this AI Lessons library, 100% of the students at Bates have become engaged in integrated arts instruction each quarter. In addition, according to a survey conducted by RMC, 50%-70% of students are involved in extra-curricular arts activities including arts clubs, countywide music and dance competitions, and arts portfolios. To highlight this engagement, students' work has also been presented at a total of 12 Arts Showcases to share student accomplishments with parents and the community. On average 50-75% of the families attended each Showcase event.

Student Achievement

This evaluation reviewed achievement in state assessments. Middle school students in Maryland take the Maryland School Assessments (MSA) in grades 6, 7, and 8 for Reading and Mathematics. This test uses a three-tier scoring system to group student achievement: Basic, Proficient, or Advanced. RMC compared growth in student achievement from School Year (SY) 2009 (the first year of the AEMS Grant Project) and SY 2012. For all grade levels, the percentage of students who scored Proficient or Advanced from Bates Middle School was statistically higher than the percentage of students from the control school to receive the same grades (Table 5, $p < 0.01$).

Table 5: Change in percentage of students at or above proficient at the MSA Reading and Mathematics from 2009 to 2012 (Jurich and Taylor, 2012).

Grade	Bates					Control School				
	2009		2012		Δ	2009		2012		Δ
	N	P+	N	P+		N	P+	N	P+	
Reading										
6	168	75.0	242	82.7	+7.7	210	77.1	204	75.5	-1.6
7	159	64.8	257	81.4	+16.6	242	76.4	237	72.2	-4.2
8	183	78.1	204	78.9	+0.8	241	77.2	220	73.2	-4.0
Mathematics										
6	167	59.3	243	83.1	+23.8	209	72.2	204	64.2	-8.0
7	159	60.4	258	81.0	+20.6	240	62.5	236	74.2	+11.7
8	184	64.7	204	68.1	+3.4	240	67.9	220	58.2	-9.7

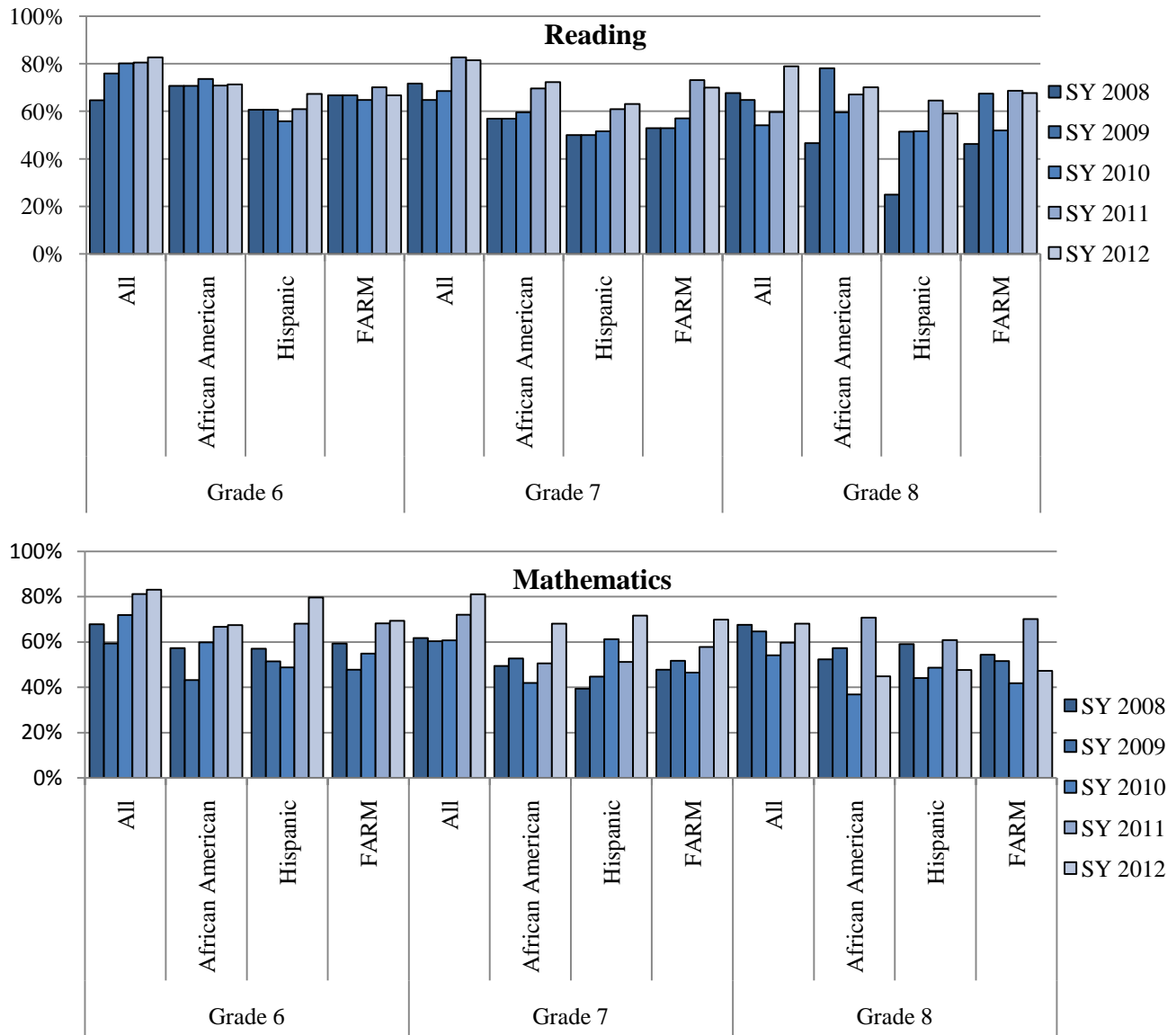
N = number of students taking the test

P+ = percentage of students at or above proficient

Δ = difference in the percentage of students scoring at or above proficient between 2009 and 2012.

RMC also disaggregated student scores on the MSA Reading and Mathematics by grade and race. In grade 6 and grade 7, the percentage of students at or above proficient generally increased between 2008 (when AEMDD grant was originally awarded) and 2012 show improvements across all cohorts (Figure D). The change for students in grades 8 was inconsistent across all disaggregated groups.

Figure D: Percentage of students at or above proficient level disaggregated by grade and demographics at the MSA Reading and Mathematics from 2008 to 2012 (Jurich and Taylor 2012).



Data source: Maryland Report Card (<http://www.mdreportcard.org>)

To account for the difference that time may have had as an independent variable on student scores, RMC conducted a cohort analysis. To do this, RMC divided students into three groups: those who entered Bates in 6th grade and had been there for three years, those that had entered Bates in 7th grade and had been there for two years, and those who had entered Bates in 8th grade and so had only been there for one year. RMC reports that “An ANOVA shows no relevant difference in [MSA] mean scale scores for both assessments across the three groups. In other words, time in Bates does not appear to influence results in MSAs” (Jurich and Taylor, 2012).

This evaluation also reviewed student benchmarks for correlations between Arts Integrated lessons and increased student achievement. In the Grade 6 Unit Test for Rational Number Concepts, more students performed better (receiving scores of Proficient or Advanced) on the benchmark addressing a standard taught using arts integration than on those that did not use arts integration. This was especially true for Hispanic students (Table 6).

Table 6. Percentage of Bates students receiving Proficient or Advanced on the Grade 6 Rational Number Concepts Benchmarks							
Standard	All	Asian	African American	White	Hispanic	Special Education	ELL
6.6.A.1.c: Identify and determine equivalent forms of fractions as decimals, as percents and as ratios.	58%	52%	53%	68%	55%	51%	43%
6.6.A.1.d: Compare and order fractions alone or mixed together, with and without relational symbols such as <, >, =	74%	75%	75%	72%	74%	50%	72%
6.3.B.1.a: Measure in customary and metric units. Standard taught through Arts Integration Lesson: Measuring with Mondrian	82%	67%	75%	95%	81%	56%	78%
6.1.C.1.a: Represent rational numbers on a number line	64%	54%	61%	74%	56%	40%	48%
6.7.A.1.b: Decide if enough information is present to solve the problem and 6.7.A.1.d: Apply a strategy, i.e., draw a picture, guess and check, finding a pattern, writing an equation	57%	48%	54%	65%	55%	53%	42%

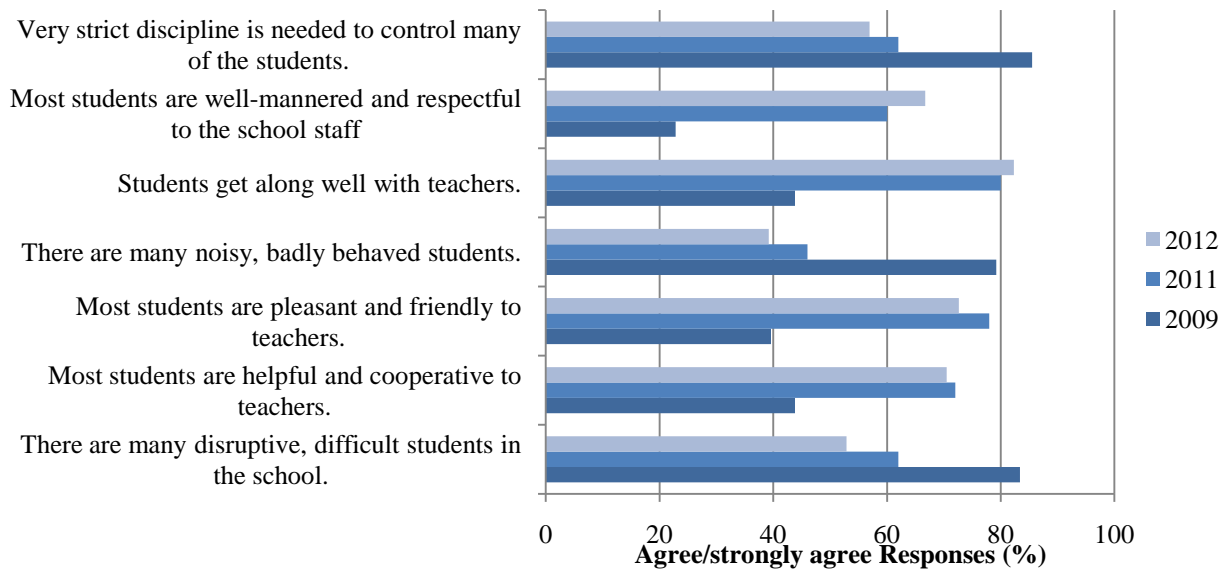
School Climate: Teacher Perception

In April 2012, RMC provided Bates teachers with an online School-Level Environment Questionnaire to assess School Climate. 85% of teachers (55 out of 65 total) completed the survey, including allowing the results to be considered reflective of the school opinion as a whole. This questionnaire surveyed several scales, each of which measures teachers’ perception of a different aspect of the school environment (Figure E).

Figure E. SLEQ Response Scales
<ul style="list-style-type: none"> • Student support scale: rapport between teachers and students • Affiliation scale: relationship among colleagues in the school • Professional interest scale: actual relationship among colleagues and interest in professional development • Innovation scale: support for planned experimentation within the school • Resource adequacy scale: the availability of resources • Work pressure scale: working under pressure.

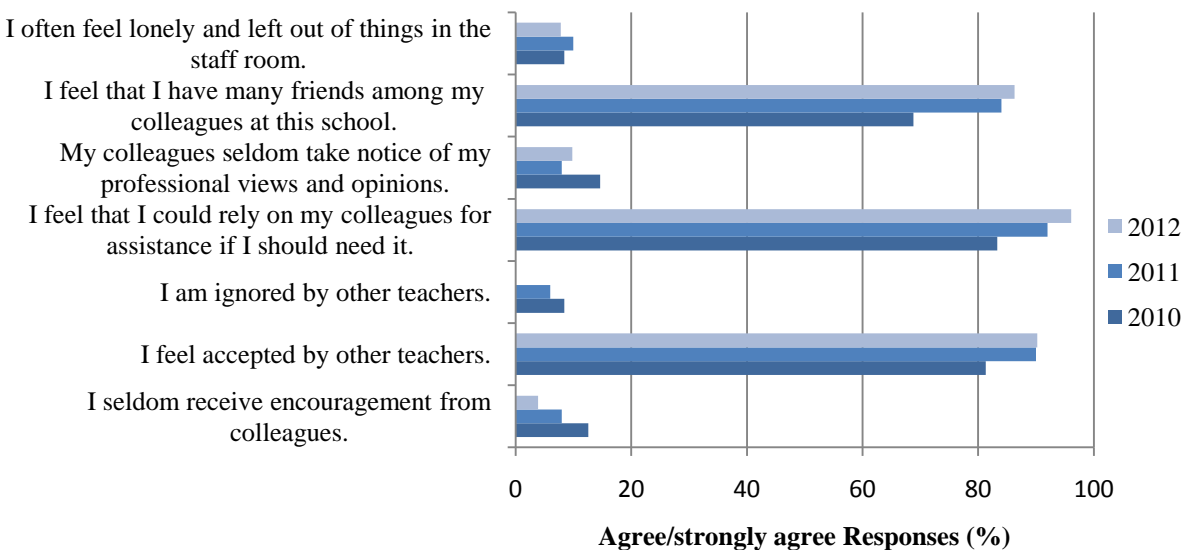
Results show an overall positive increase in attitude towards Bates Middle School over time. In response to questions related to student support, teachers agreed or strongly agreed with the statements that students got along well with teachers (83%) and that students were pleasant (73%), and cooperative (71%). This shows a dramatic shift in opinion from 2009 to 2012 (Figure #, $p < 0.01$ for all responses).

Figure F: Changes in responses to the student support scale from 2009 to 2012



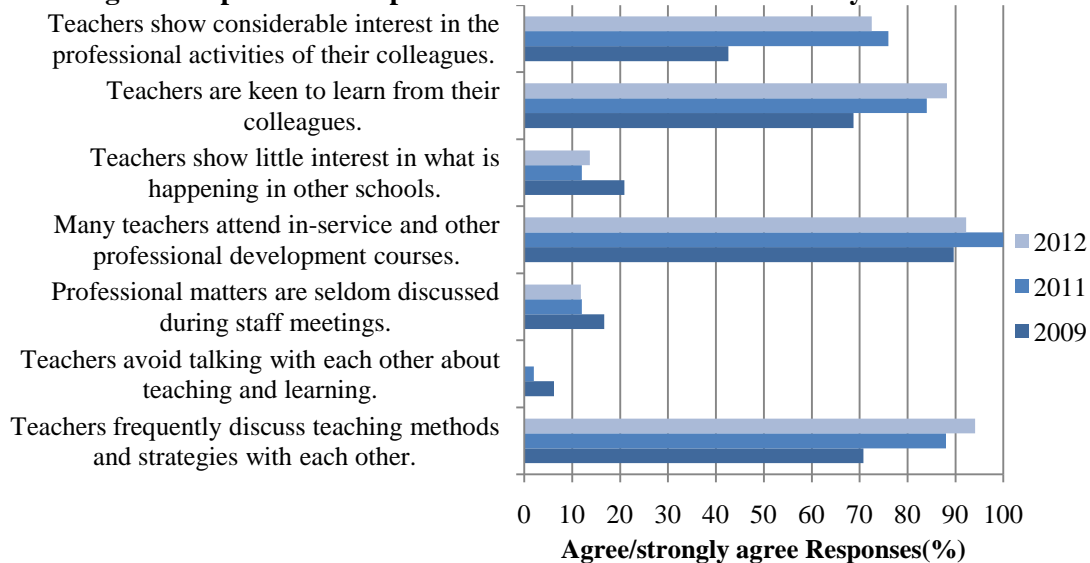
Survey responses also suggest that teachers have an overall positive view of their colleagues at Bates Middle School with teachers reporting that they have friends at the school, feel accepted by others, and can rely on colleagues for help (Figure G).

Figure G: Changes in responses to the affiliation scale across the years



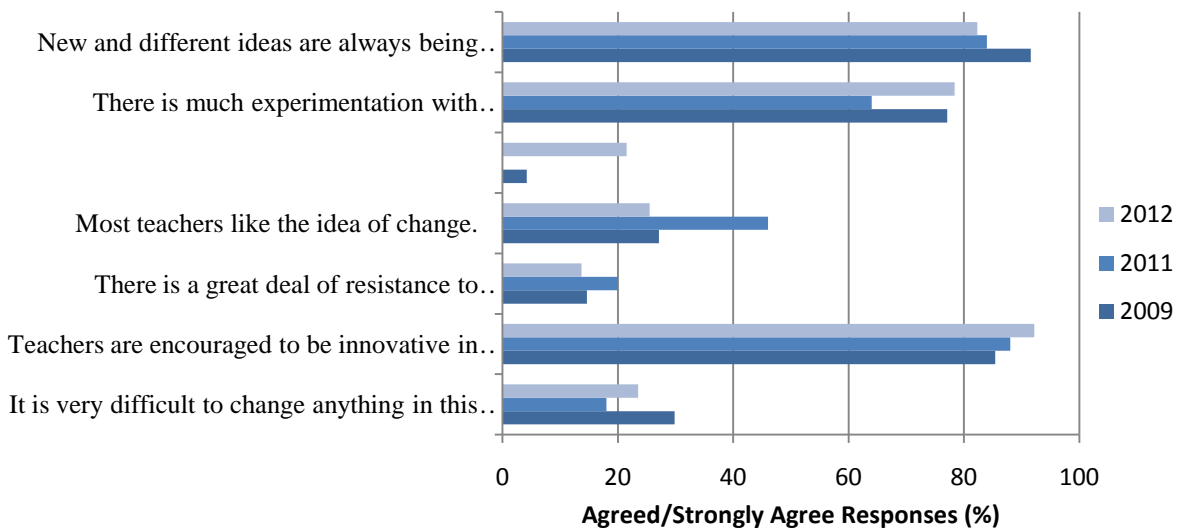
This positive affect toward the other teachers in the schools continues in student’s view of Bates Middle school as a place for professional growth and development. Especially relevant to our PD-focused model, were the high number of teachers who agreed/strongly agreed that teachers discussed teaching strategies with others (94%), attended PD opportunities (92%), and are eager to learn from colleagues (84%). Overall, as reported by RMC, teachers at Bates perceived a strong professional interest in their colleagues in 2012 than they did in 2009 (Figure H).

Figure H: Changes in responses to the professional interest scale across the years



Teachers also responded positive to statements related to innovation within the school. Most teachers felt encouraged to be innovative (92.2%) and felt that new ideas were often tested in the school (82.3%). This drive for innovation has increased over the past several years since the implementation of SAILSS (Figure I).

Figure I: Changes in responses to the innovation scale across the years

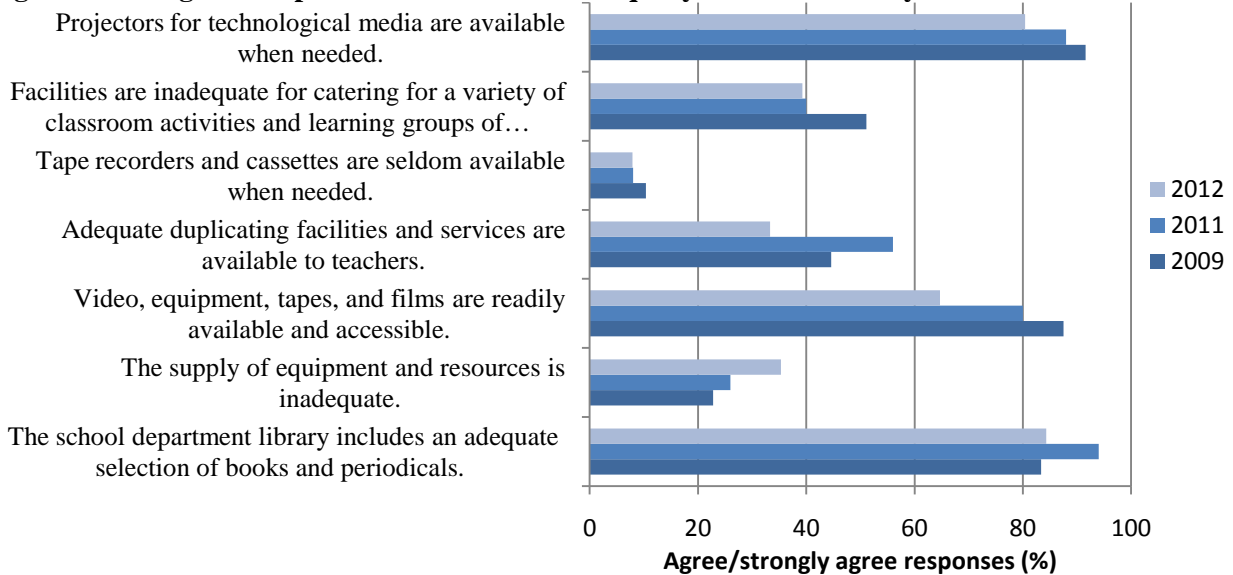


RMC reports that it is important to note that higher responses to some of the innovation scale questions in 2009 may be explained by the fact that teachers were first introduced to the idea of arts integration in 2009, making the idea newer to the teachers. Over the past several

years, this innovation has become part of the “status-quo.” However, as noted above, teachers still feel encouraged to be innovating in the school.

Survey reports also reflected that in general, teachers feel that multimedia resources are readily available (Figure J).

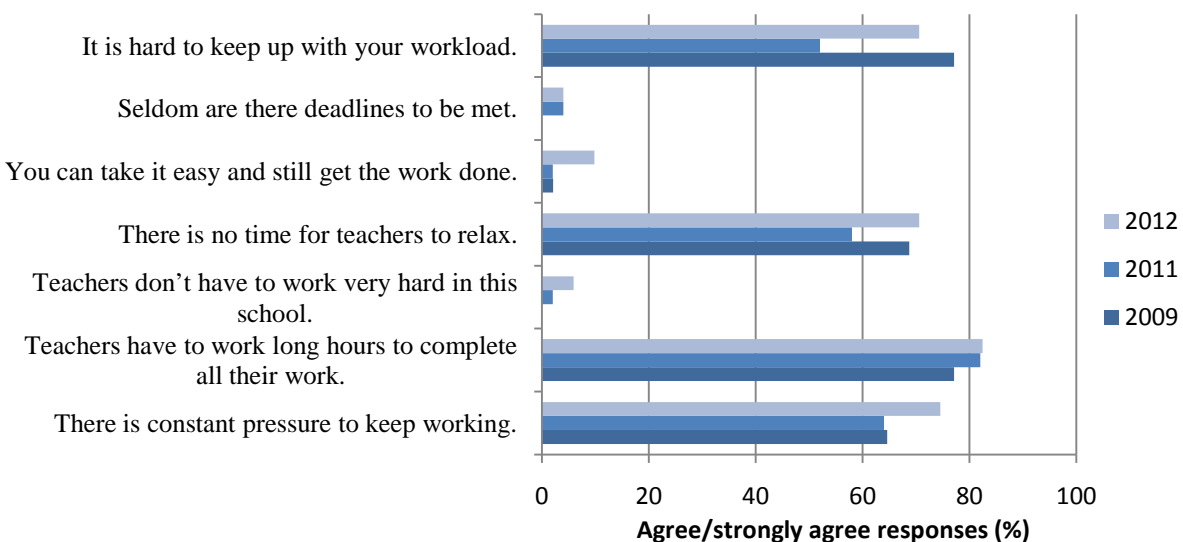
Figure J: Changes in responses to the resource adequacy scale across the years



As RMC reports, the seemingly decreased positive results overtime to these questions “may suggest rather than a decline in supporting resources, an increase in the demand for them, as more teachers utilize a variety of methods and materials for arts integration” (Jurich and Taylor, 2013).

Finally, the survey results showed that teachers at Bates Middle School constantly feel pushed to work hard. Most teachers disagreed or strongly disagreed with the statement that they do not have to work hard (76.5%) and that they rarely have deadlines (90.2%). Instead, there is a constant pressure from the administration to keep working (74.5%). This pressure has either remained relatively constant, or increased over the past several years (Figure K).

Figure K: Changes in responses to the work pressure scale across the years



Combined, all of these survey results indicate a positive opinion of their students and colleagues and a belief that Bates Middle School presents a challenging, but innovative work environment.

School Climate: Student Behavior

RMC also reviewed changes in student referrals, suspensions, and attendance between 2009 and 2012 between Bates Middle School and the control school. One unexpected finding was in increase in referrals between 2011 and 2012. While referrals at Bates had decreased by almost 43% between 2010 and 2011, they spiked dramatically between 2011 and 2012 (Table 7). However, this pattern was also seen in the Control school, indicating that an outside factor, such as a change in the way discipline referrals were reported, caused the increased.

Table 7: Number of discipline referrals and referrals per student (2009 to 2011)

School	Referrals	2009	2010	2011	2012
Bates	Sum	746	1,223	698	1,714
	Average #/Student	1.29	2.00	0.99	2.29
School B	Sum	674	538	429	1,388
	Average #/Student	0.85	0.70	0.57	1.93

Source: AACPS Student Data

Worth noting, however, is that while the number of discipline referrals dramatically increased, the same was not true for the number of suspensions, which decreased by 44% at Bates between 2009 and 2012 (Table 8).

Table 8: Number of suspensions and average suspension per student

School	Suspensions	2009	2010	2011	2012
Bates	Sum	249	225	233	180
	Average #/Student	0.43	0.37	0.33	0.24
School B	Sum	183	255	177	138
	Average #/Student	0.23	0.33	0.23	0.19

Source: AACPS Student Data

As RMC reports, while referrals may have increased, the numbers of severe disruptive episodes that would require student suspension have decreased.

In addition, by 2012, average student attendance at Bates was greater than the average attendance at the control school (Table 9). Over the four years tracked in the evaluation, the average attendance for students at Bates grew by 3%, compared with the 2% growth seen in the control school. By 2012, Bates Middle School surpassed the Maryland satisfactory standard for attendance of 94%).

Table 9: Average attendance per school from 2009 to 2012

School	2009	2010	2011	2012
Bates	93.6	93.8	94.8	96.4
School B	93.9	94.4	94.3	95.8

Source: AACPS Student Data

These indicators suggest that the overall climate of Bates Middle School has increased over the past several years. While this change cannot be conclusively attributed to the implementation of the SAILSS model, it does positively correlate. This correlation is further supported by the positive remarks gathered through interviews by RMC with school personnel. Through these interviews, teachers cited a strong arts integration support system which allowed them effectively integrate the arts as a natural part of each day. In addition, teachers reported that arts integration allowed them to reach students who were typically unengaged, encouraging these students to “dig deeper” and explore more. RMC also met with a representative from the Parent-Teacher Association who noted an increasingly strong parent involvement in the PTA and that “Arts integration has enabled parents to feel comfortable sending their [children] to this school again” (quoted in Jurich and Taylor, 2013).

Discussions

Over the course of this project, we have found the SAILSS model to be an extremely effective tool for middle school reform. In addition to establishing Bates Middle School as a friendly and innovative place to work and learn, in the years since the SAILSS model was implemented in the school, student achievement on the Mathematics MSA has increased by more than 20% in grades 6 and 7. Student suspensions have also decreased by almost 28% and more teachers consider Bates students to be respectful, friendly, and cooperative now than in 2009.

One of the most important factors to this overwhelming success has been the commitment of the administration to completely transform Bates into an integrated arts school. As testimony to this support, the new Principal at Bates Middle School has levied his staffing to continue to support the full time Arts Integration Specialist at the school, even though the funding from the grant has ended. He has also built in to the staff schedule, additional planning time for the arts teachers and AI Specialist to continue the work of arts integrated curriculum development. When new teachers arrive to Bates, they are also made aware that Bates is an arts integrated school and understand that they will be expected and, even more importantly, supported to incorporate facets of the arts into their daily routine. Through this strong leadership, teachers are able to experiment with creative and innovate ways to engage their students by teaching content standards and art standards concurrently through the arts.

This dedication to arts integration is evidenced by the extensive opportunities in the arts that have become a regular part of each Bates student’s education. In the school, the Artists-in-Residence programs have visually changed the “look” of Bates Middle School with the installation of permanent art works created by students and artists. One such project is the 12-foot kinetic sculpture that students created with Artist-in-Residence Kevin Reese, of School Sculptures, while exploring concepts of math, science through perspective, scale, measurement, and balance (Figure L).

Figure L: School Sculpture



Public art as the result of AI experiences for students.

Students also met and worked with Lisa Kiperstock a member of AmeriCorps Vista, to research, design, and build an outdoor classroom at Bates based on the concept of the Greek Agora, or assembly place. This Arts Integrated project incorporated history, science, mathematics, and language arts with landscape and architectural design, mosaics, filmmaking and sculpture. The project was completed by the collaboration of students, teachers, parents, and local community and business members.

Yet another artist residency brought students, teachers and staff from every class and office at Bates together to learn concepts of visual arts science and math as they cut glass mirror pieces to assemble the “Shiny, Happy Tree.” Working with Bob Benson whose mirror sculptures are also installed in the American Visionary Arts Museum in Baltimore’s Inner Harbor students explored concepts of area, balance and the effects of light to create color, reflection and refraction. The resulting sculpture stands 10 feet tall in front of the Bates Arts Center and continuously casts ever changing paintings of reflected color and light on the buildings walls. These pieces not only add beauty to the school, but allow teachers, families, and the community to continually recognize the accomplishments of their students.



Every student, teacher and staff member at Bates participated in the creation of the mirror math sculpture.

Students also benefit from the partnerships that Bates has formed as a result of this project. In addition to the arts integration organizations such as Young Audiences and AEMS, Bates Middle School now works frequently with the Baltimore Museum of Art and the Walters Art Museums with curriculum and professional development for teachers.

Beyond Anne Arundel County, the success of the SAILS model has launched Bates Middle School and the district as a regional partner in arts integration. Through our partnership with AEMS, teachers and administrators from Bates and AACPS attended the first meeting and became part of the Maryland Arts Integration Network (MAIN). The purpose of this network is to provide a venue where school across the state can meet to discuss the many challenges and benefits associated with arts integration and to provide information on curriculum mapping, scheduling, lesson planning, and building community partnerships.

The SAILSS project has also allowed Bates Middle School and AACPS to become part of the up-and-coming Global Arts Integration Network (GAIN). Much like MAIN, this network will foster collaboration to share ideas and solve challenges in arts integration, but will include partners from across the globe. This partnership has led to international teachers joining the 21st Century Arts Integration Institute and Imagination Vacation from Milan, Italy. Most recently, teachers and administrators from AACPS traveled to Milan to plan further collaborations and conduct arts integration professional development.



Collaboration with partner schools in Milan, Italy

The success of the SAILSS model has also brought this school regional and national recognition. In 2011, Young Audiences honored Bates Middle School with the Visionary School Award at their annual awards ceremony and gala, *Taste of the Arts*. When presenting the award, Young Audiences praised: “At a time when many schools and school districts are choosing to cut back on the arts, Bates Middle School is making a larger investment and remains committed to keeping quality visual arts, instrumental and vocal music, and dance teachers on staff. Arts integration is embraced and valued as a way to strengthen curricular connections, increase

student engagement, and enhance student learning.” This recognition helps affirm the dedication of the Bates staff and administration to pioneering arts integration in middle school reform.

Bates Middle School has also been recognized as a “School that Works” by Edutopia, a resource created by the George Lucas Educational Foundation dedicated to improving K-12 education by finding and advocating for innovative ways to improve education. In “School Transformation Through Art,” author Mariko Nobori writes:

“What do Mars and modern dance have to do with each other? How do you connection fractions with Andy Warhol? At Wiley H. Bates Middle School, in Annapolis, Maryland, the answer is arts integration. Every teacher there is committed to weaving the arts and standard curricula together to create a richer and more lasting learning experience for their students.” (A link to the full Edutopia article can be found here: <http://www.edutopia.org/stw-arts-integration>).

While this acclaim has in no way been a goal of this project, it helps reinforce not only the success of the SAILSS model at Bates, but the important place of Arts Integration in education today.

Perhaps most exciting to our success has been the ways in which this model has been embraced by other schools across the county. In 2009 Brooklyn Park Middle School began implementing the SAILSS model of arts integration into their school. Much like Bates, this extremely diverse school has been using this model to improve school climate, increase student engagement, and increase student achievement. The implementation has also been supported by the administration. In the summer of 2013, the principal informed the newly appointed assistant principal on his first day of work, that he needed to register and attend the Arts Integration 21st Century Institute because you will be supporting and supervising teachers throughout the school who will be employing an arts integrated approach to instruction. In addition six AACPS elementary schools have elected to become arts integrated schools with a seventh elementary school electing to become a STEAM (science, technology, engineering, **art**, and mathematics) school. This district endorsed initiative is supported by a full time central office Arts Integration Specialist who works with lead teachers from the schools to provide job embedded professional development; supports AI curriculum development; and facilitates artist residencies at the schools.

Individual components of the SAILSS model have also been expanded to include a wider group of teachers and students. The 21st Century Arts Integration Institute is now open to teachers and administrators across the county, accepting both school teams and individual participants. Teachers and artists from across the country have also joined this institute. This year, the Institute added a STEAM component, helping teachers continue to incorporate art into the core academic subjects with a focus on the arts and science, technology, engineering and math.

Furthermore, all arts integrated lessons developed by the teachers, AI specialist, and Artists-in-Residence at Bates have been shared with other teachers in Anne Arundel County, exponentially extending the reach of arts integration across all schools. At the district level, Anne Arundel County Public Schools has also hired Arts Integration Specialist dedicated to working with K-12 schools across the county to integrate arts instruction into the core curriculum.

Most important to the success of this project is the ways in which this model will live on beyond the end of the grant. The visionary leaders of Anne Arundel County Public Schools recognized the success of the SAILSS model and continue to support great work at Bates as well

as the expansion to the additional middle school and seven elementary schools. With the support and dedication from the Bates administration and Anne Arundel County Public Schools, the community at Bates has been transformed to one of self-sustaining arts integration. Through focused professional development with arts partnerships, teaching artists, and Artists-in-Residence, Bates teachers have become empowered as leaders in providing an integrated arts education for their students. This leadership will live on beyond the grant funding, continually reaffirming the SAILSS model as a successful tool for improving low-performing middle schools.

References

- Catterall, J.S. Dumais, S.A., & Hampden-Thompson, G. (2012). *The Arts and Achievement in At-Risk Youth: Findings from Four Longitudinal Studies*, Research Report #55. (12) Washington, DC: National Endowment for the Arts.
- Fisher, D., & Fraser, B. (1990). School-level environment questionnaire (SLEQ). *School Governance and Management*, (2), 5.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publishing Company.
- Jurich, S., & Taylor, L. (2002). Project SAILSS: Evaluation report (year four). *RMC Research Corporation*,
- Nobori, M. (2012, August 29). School transformation through arts integration. *Edutopia: Schools that Work*, Retrieved from <http://www.edutopia.org/stw-arts-integration>