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Transforming Teaching through Arts IntegrationAI Implementation Results: Middle School Reform through Effective Arts Integration Professional Development In four years, Anne Arundel County Public Schools (AACPS) increased sixth and seventh grade student achievement on the Maryland State Assessment (MSA) by 20% at Bates Middle School, a low performing school that had been targeted for restructuring by the state. This improvement positively correlates with the implementation of the arts integration Supporting Arts Integrated Learning for Student Success (SAILSS) model funded through the Arts in Education Model Development and Dissemination (AEMDD) grant. This model, offered to teachers across all content areas, incorporates extensive professional development opportunities including: an intensive weeklong workshop for teachers with artists followed by a two-week teaching lab with students; participation in an cohort to achieve an arts integration post-baccalaureate certificate,; and extensive trainings, conferences and workshops at local, regional, and national schools, museums, arts institutes, and higher education facilities. Qualitative and quantitative data collected by AACPS was assessed through a quasi-experimental design from the treatment and comparison schools utilizing the following instrumentation: state and local standardized testing, School-level Environment Questionnaire (SLEQ), Arts Integration: Classroom Observations for Middle Schools (AICOM), arts integration logs and parent, student, and teacher surveys. Through this study we found that in addition to increasing student achievement on statewide assessments, implementing this arts integration model positively correlates with a 77% decline in discipline referrals, and overall positive change in school climate based on teacher, staff, student, and parent perception.

# Transforming Teaching through Arts Integration

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

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## Abstract

In four years, Anne Arundel County Public Schools (AACPS) increased sixth and seventh grade student achievement on the Maryland State Assessment (MSA) by 20% at Bates Middle School, a low performing school that had been targeted for restructuring by the state. This improvement positively correlates with the implementation of the arts integration Supporting Arts Integrated Learning for Student Success (SAILSS) model funded through the Arts in Education Model Development and Dissemination (AEMDD) grant. This model, offered to teachers across all content areas, incorporates extensive professional development opportunities including: an intensive weeklong workshop for teachers with artists followed by a two-week teaching lab with students; participation in an cohort to achieve an arts integration post-baccalaureate certificate,; and extensive trainings, conferences and workshops at local, regional, and national schools, museums, arts institutes, and higher education facilities. Qualitative and quantitative data collected by AACPS was assessed through a quasi-experimental design from the treatment and comparison schools utilizing the following instrumentation: state and local standardized testing, School-level Environment Questionnaire (SLEQ), Arts Integration: Classroom Observations for Middle Schools (AICOM), arts integration logs and parent, student, and teacher surveys. Through this study we found that in addition to increasing student achievement on statewide assessments, implementing this arts integration model positively correlates with a 77% decline in discipline referrals, and overall positive change in school climate based on teacher, staff, student, and parent perception.

## Introduction

Anne Arundel County Public Schools (AACPS) was struggling to reform Wiley H. Bates Middle School (Bates), a highly diverse, low-income school on the brink of failure in Annapolis, Maryland. Bates Middle School, part of the Annapolis High School Feeder System serves a diverse Grade 6-8 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).

Table 1
*Wiley H. Bates Middle School 2012-2013 student demographics compared with AACPS*

| 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).

Table 2
*Percentage of students scoring Proficient or Advanced on the MSA*

| | 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% |

Faced with scores 14%-27% behind the county average, Bates was marked for Corrective Action (the third and highest tier of school improvement) by AACPS. We, the administrators and leaders in the county, sought a full-school approach that could change not only the achievement, but also the culture, of the entire school. To meet this need, we turned to Arts Integration (AI).

Burnaford (2007) placed the origin of Arts Integration in the early 1900s, when educators started to challenge the organization of the secondary school curriculum as a group of insulated content areas. Proposals to reform secondary schools included reorganizing the curricula by themes, rather than content areas; embedding interdisciplinary topics into content-specific curricula; and adopting a full integration model. Gardner's (1983) theory of multiple intelligences was instrumental to the Arts Integration movement. In the early 1980s, Gardner advanced the concept that human beings have different intelligences that account for their broader range of potential. His theory highlighted the need to reach students' different intelligences by diversifying teaching methods. Art, with its many forms (visual, dance, music, drama), addressed this need for diversification (Nelson, 2001). The integration of art into the academic content curricula provides a logical approach to address the variety of students' intelligences that are reflected in their different learning styles.

This integration is further supported by research demonstrating that implementing Arts Integration can raise student achievement and engagement in students from both low and high socioeconomic backgrounds (Catterall, Dumais, & Hampden-Thompson, 2012). Gallas (1994) found that the arts provide varied, connected, and increasingly challenging opportunities to generate knowledge, a claim supported by Erickson (2000), who found that Arts Integration allows for a natural, meaningful connection among one or more art forms and one or more subject areas to help students master significant content and/or skills in both. The link between arts and achievement is especially true for mathematics (TIMMS, 2004). Through a series of studies conducted over the past two decades, researchers have found that music in particular is linked to high school math proficiency. As one example, a 2002 study found that students involved in music classes during their high school careers are significantly more likely to score higher on standardized mathematics exams, such as the SAT (Vaughn, 2002). Furthermore, this correlation is especially true for students from underrepresented populations, with research finding that low-income students involved in orchestra were more than twice as likely to perform at the highest mathematics level than their peers not involved in music (Catterall, Chapleau, & Iwanaga 2002). Armed with this knowledge, AACPS embraced Arts Integration as the vehicle for full-school reform at Bates.

Using funds awarded by the 2008 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. The SAILSS project was guided by two major resources. The first was *Arts Integration Frameworks, Research and Practice,* a report citing more than 35 significant research studies linking the arts to higher academic performance and the development of social skills (Burnaford, Brown, Doherty, & McLaughlin, 2007). This literature review provided a theory-driven framework of best practices upon which we designed our SAILSS model, including recommendations for cross-disciplinary collaborative planning, professional development, community involvement, and direct interactions with art/artists. The second resource, *An Arts Integrated Approach for Elementary School Students,* provided the guiding questions to ensure that the SAILSS model remained accountable and sustainable:

> What is the content? What is appropriate instruction? Who provides the instruction? What strategies are implemented? How will assessment occur? (Brown, 2007).

Following these resources of best-practices the SAILSS project involved the design and implementation of a school-wide instructional model that integrated the learning of different art forms into the core content areas. This model included a triad of teacher-driven activities that included sustained and focused professional development, curriculum writing, and curriculum implementation . Art-related enrichment activities were also planned to bring the project beyond the school walls and involve the community. Specifically, the SAILSS 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 and 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
6. **Sharing community involvement** through celebration of student work and success.

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 potential tool for middle school reform.

**Implementing the SAILSS Model in Bates Middle School**

In response to its Corrective Action status, 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 (Table 3).

Table 3
*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:<br>• Participate in monthly professional development for AI<br>• Incorporate AI into weekly lesson plans<br>Plan with AI Specialist<br>Team teach with AI Specialist<br>• Record all AI activities on an Arts Integration Activity Log and submit it quarterly.<br>• Document one AI lesson per quarter using an AI lesson plan or display template.<br>• Showcase student work related to AI<br>• Designate an AI area inside and outside of the classroom.<br>• Display current student work including documentation of connected objectives, process and product at quarterly showcases. | Department Chairs<br><br>Arts Integration Specialist<br><br>Administration | All Teachers and Teams | Professional development calendar<br><br>Arts Integration Center<br><br>AI Activity Log template<br><br>AI lesson plan templates<br>AI display templates<br>Quarterly Showcases<br>Curriculum Maps | AI Activity Logs<br><br>Quarterly lesson plans and displays<br><br>Observations by administrators<br><br>Current displays in classrooms and hallways | June 2011 |

The school administration and SAILSS project team provided teachers with information that 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
- Participation in mandatory AI professional development throughout the year

With this information, teachers could elect to agree to these terms and remain at the school or volunteer to be excessed 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 appreciation for the performing and visual arts; and **create** connections with the wider world through technology and the arts.

With AACPS support, Bates Middle School transformed into a fully arts integrated school. 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 (MATI) 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 (Figure 1).

**Professional Development Opportunities**

**Three-day summer mini conference**

***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.*

**Workshops Offered:**

Presented by the Kennedy Center:

- *Laying a Foundation: Defining Arts Integration*
- *Reading Portraits as Biographies*
- *Fact-Filled Role Drama: A Dramatic Approach to Reading Comprehension*
- *Exploring Points of View through Drama: Walking in Another's Shoes*

Presented by Bates AI leaders and experts in Arts Integration around the county and throughout Maryland:

- *Artful Thinking*, based on Harvard's *Project Zero*
- *Moving from an Arts Enhanced Lesson to an Arts Integrated Lesson*
- *Literacy Quartet*
- *Curriculum Mapping*: analyzing the curriculum for natural connections between the arts and content subjects.

Presented by directors from the Baltimore Museum of Art and the Walters Art Museum:

Incorporating museum multimedia interactive websites into the middle school curriculum.

**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*

*Figure 1.* AI professional development opportunities offered to Bates Middle School teachers from 2010 to 2013.

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, theater, dance, music) as they apply to teaching across the curriculum in Maryland's schools, K-12. The certificate awarded through the program supports Towson University's mission to provide programs that enhance the teaching skills and PD of educators and teaching-artists. As of June 2013, four Bates teachers earned their Post-Baccalaureate Certificate, with another four teachers at that time earning credits toward this certificate. The then full cohort of 25 teachers included both elementary and middle school teachers, with a wait list for teachers from across Anne Arundel County.

One of the most compelling PD components of the SAILSS model at Bates was 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 classrooms. 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.

Throughout this week-long PD, 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 the newly designed lessons with a group of Bates students during the week-long *Imagination Vacation Summer Bridge Program*. Over the course of this summer bridge program, 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. 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 experiences.

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 experienced 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 and the Arts Integration support team.**

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 1 outlines the support provided by 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
- Applied for and received additional grants to fund AI lessons and projects.

*Figure 2.* Support Provided by the AI Specialist

The Arts Integration Specialist worked closely with the highly qualified instructional Art Teachers at the school to create the Arts Integration Support Team, including two visual arts

teachers, a dance teacher, a vocal teacher and two instrumental music teachers. The AI specialist, continued to work with the Arts faculty team to assist core content teachers in developing arts integrated lessons during release planning time dedicated to Arts Integration planning.

**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 AI strategies 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. Core content classroom teachers were able to submit requests from the Arts Integration Support Team for support in developing arts integrated lessons that addressed content standards identified as an area where students are struggling or where there is needed improvement for a particular class or group of students. This collaboration with Instructional Arts teachers has been essential in planning true arts integrated lessons that address arts standards and content standards simultaneously. Each quarterly marking period, every teacher was required to submit at least one AI lesson (formal lesson plan or visual display for the classroom or the Quarterly Arts Showcase) and a log of weekly Arts Integration activities. Teachers used AACPS Benchmark data (Achievement Series), as well as a formative assessment to develop Arts Integration Activities that directly related to the content standards where a student was struggling (Table 4).

Table 4
*Sample Arts Integration activities and their corresponding content standard.*

| Arts Integration Activity | Content Standard | Achievement Series Data | |
|---|---|---|---|
| | | % | (#) items |
| Abstract portrait: examining color, line, and shape | 3.A.3.d: Analyze characterization | 63.2% | 4 |
| "Class Clown Character" | | | |
| Collage: Project Citizen | 2.A.3.c: Analyze details that provide information about the setting, mood created by the setting, and ways in which the setting affects characters | 56.2% | 2 |
| Artful Thinking | 3.A.6.a: Analyze main ideas and universal themes | 59.6% | 2 |
| Collage of Self: Examining texture and color | 3.A.3.d: Analyze characterization | 86.0% | 4 |
| Artful Thinking | | | |
| Tableau: topic of art; theme statement; create a character that reflects theme through dialogue | 3.A.6.a: Analyze ideas and universal themes (developed through character's thoughts, feelings, and actions) | 74.1% | 2 |
| Artful Thinking | | | |
| Photography: Compare characters | 3.A.3.c: Analyze details that provide information about the setting, mood created by setting, and ways in which the setting affects characters. | | |
| 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 (with the art of T. Cole--Drama/charades) | 3.A.3.c: Analyze details that provide information about the setting, mood created by setting, and ways in which the setting affects characters. | 63.3% | 2 |
| Shadow puppets with background scenery/setting | 3.A.3.b: Analyze events of the plot | 66.7% | 1 |
| Artful Thinking | 3.A.3.c: Analyze details that provide information about the setting, mood created by setting, and ways in which the setting affects characters. | 94.4% | 1 |

Core and art content teachers also met with support personnel, including the AI Specialist and the AI Support 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, Artists-in-Residence would co-teach lessons within 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 the Math Arts Integration Project (Figure 3). 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 and 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.

*Figure 3*. Samples of student work the Math Arts Integration Project presented by Artist Rob Levit.

*Figure 4*. Student engaging in music through an AI lesson.

**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


*Figure 5.* Invitation from a community engagement Quarterly Showcase attended by Maryland legislators.

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 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.

*Figure 6.* Students observe authentic artworks during Arts Integration field trips at local museums.

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 with 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 sixth grade class to experience "Math in the Museum" at the Baltimore Museum of Art. The weeks following the field trip included math lessons 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. Many students have also participated in the *Imagination Vacation* Summer Bridge Programs and summer musicals, as well as art co-curricular programs, such as art club, jazz band, Dance Company, drama club and an architecture project for creating the outdoor classroom.

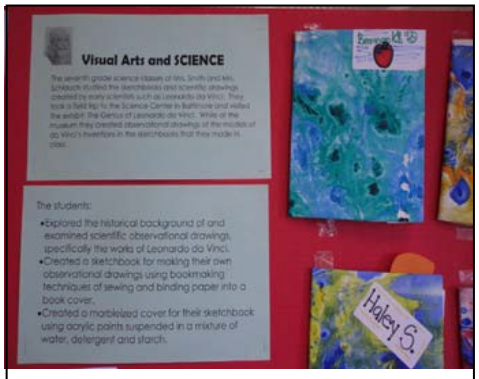



*Figure 7.* Samples of student work from a Science and Visual Arts AI lessons.

## Research Method

### Evaluating the Model

To track the effects of our Arts Integration model on Bates Middle School and its student achievement, our external evaluator, RMC Research Corporation (RMC), chose a variety of cost-effective instruments (Table 5).

Table 5
*SAILSS Evaluation activities, timeline, and instruments (adapted from Jurich and Taylor, 2012)*

| 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 quantitative data over time to measure the research questions. Because the 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. RMC 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 schools 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 students 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. At both schools, 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

The evaluation revealed a positive correlation between the implementation of the SAILSS model at Bates and an increase in student achievement on the MSA for select groups and the development of a more positive school climate, as indicated by teacher survey responses and

decreased suspensions. 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 resulted in increased student opportunities to engage in and through the arts.

**Observations of Arts Integration in the School**

According to the 2010-2012 Teacher and Project Director Logs, Bates Middle School offered 24 in-house professional development activities and 63 off-campus conference and workshops. An average of 38 teachers attended each in-house PD session (though some sessions had more than 70 attendees) with an average of 8 teachers attending each off-campus conference/workshop.

Since the start of the SAILSS project (measuring fall 2010 to spring 2013), Bates Middle School has developed and tested 316 Arts Integration lessons. Developed by the collaboration of Bates Middle School's core content teachers and the Arts Integration Support team (AI Specialist and Arts teachers), these lessons cover wide-ranging topics such as drama and mathematics (ex. *Tableau: How to Show Angle Relationships and Find Missing Angles*, Grade 6), visual arts and science (ex. *Seeing family traits in the Art of Joshua Johnson*, Grade 7), dance and social studies (ex. *Footwork and the Roots of Diversity*, Grade 7) and music and language arts (ex. *Poetry and the Music of the Harlem Renaissance*, Grade 8), among many more. Each year, every department also worked with An Artist-in-Residence 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, as evidenced by the logs of teacher lesson plans.

In addition, survey results indicated that 50%-70% of students were involved in extra-curricular arts activities, including arts clubs, countywide music and dance competitions, and arts portfolios. Students' work has been presented at a total of 12 Arts Showcases designed to share student accomplishments with parents and the community. On average, event sign-in/registration sheets indicate that 50-75% of the families at Bates Middle School attended each Showcase event.

**Student Achievement**

To evaluate the effect of Arts Integration on student achievement, evaluators analyzed student standardized test scores on 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. Evaluators 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 overall percentage of aggregated 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 6, $p<0.01$).

Table 6
*MSA Scores from Bates Middle School and Control School*

| Grade | Bates | | | | | Control School | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | SY 2009 | | SY 2012 | | Δ | SY 2009 | | SY 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.*

To inform the progress of effectiveness in facilitation improvements in student achievement, evaluators performed an effect size analysis. The effect size (Cohen's *d*) provided a robust test of the magnitude of change in student performance on MSA Reading and Mathematics between the test school implementing SAILSS (Bates) and the control school not implementing the program (School B). Cohen's d was calculated as the difference between the means for the treatment or comparison group divided by the standards deviations of the respective population. Cohen's d is interpreted such that up to 0.3 to 0.5 is a small effect; greater than 0.5 to 0.8 is a medium effect; and greater than 0.8 is a large effect. While the control group showed negligible or negative effect sizes for all grades in both assessments, evaluators found a medium effect size in Grade 7 Reading (with an almost medium effect size in Mathematics) and an almost medium effect size in Grade 6 Mathematics (Table 7).

Table 7
*Effect size analysis for MSA Reading and Mathematics (SY 2009 and SY 2012)*

| Grade | School | MSA Reading | | | MSA Mathematics | | |
|---|---|---|---|---|---|---|---|
| | | Mean | St. Dev. | Cohen's *d* | Mean | St. Dev. | Cohen's *d* |
| **Bates** | | | | | | | |
| 6 | 2009 | 396.05 | 49.40 | 0.29 | 405.76 | 45.98 | **0.41** |
| | 2012 | 412.17 | 60.31 | | 430.07 | 73.44 | |
| 7 | 2009 | 390.67 | 80.57 | ***0.53*** | 389.61 | 83.17 | **0.48** |
| | 2012 | 423.47 | 42.98 | | 422.49 | 54.19 | |
| 8 | 2009 | 400.38 | 59.66 | 0.24 | 414.01 | 52.08 | 0.07 |
| | 2012 | 414.44 | 56.58 | | 418.17 | 59.95 | |
| **School B** | | | | | | | |
| 6 | 2009 | 413.94 | 56.87 | | 399.55 | 50.13 | 0.09 |
| | 2012 | 394.41 | 57.09 | | 404.08 | 57.06 | |
| 7 | 2009 | 393.96 | 76.85 | 0.12 | 399.16 | 76.18 | 0.12 |
| | 2012 | 401.96 | 62.65 | | 407.54 | 64.04 | |
| 8 | 2009 | 414.55 | 60.43 | | 402.74 | 58.12 | |
| | 2012 | 396.14 | 73.18 | | 401.51 | 74.09 | |

*All results are statistically significant at α+.05; numbers in bold=small effect size; bold and italics= medium effect size

RMC also disaggregated student scores on the MSA Reading and Mathematics by grade and race. In Grades 6 and 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 8). The change for students in Grade 8 was inconsistent across all disaggregated groups.

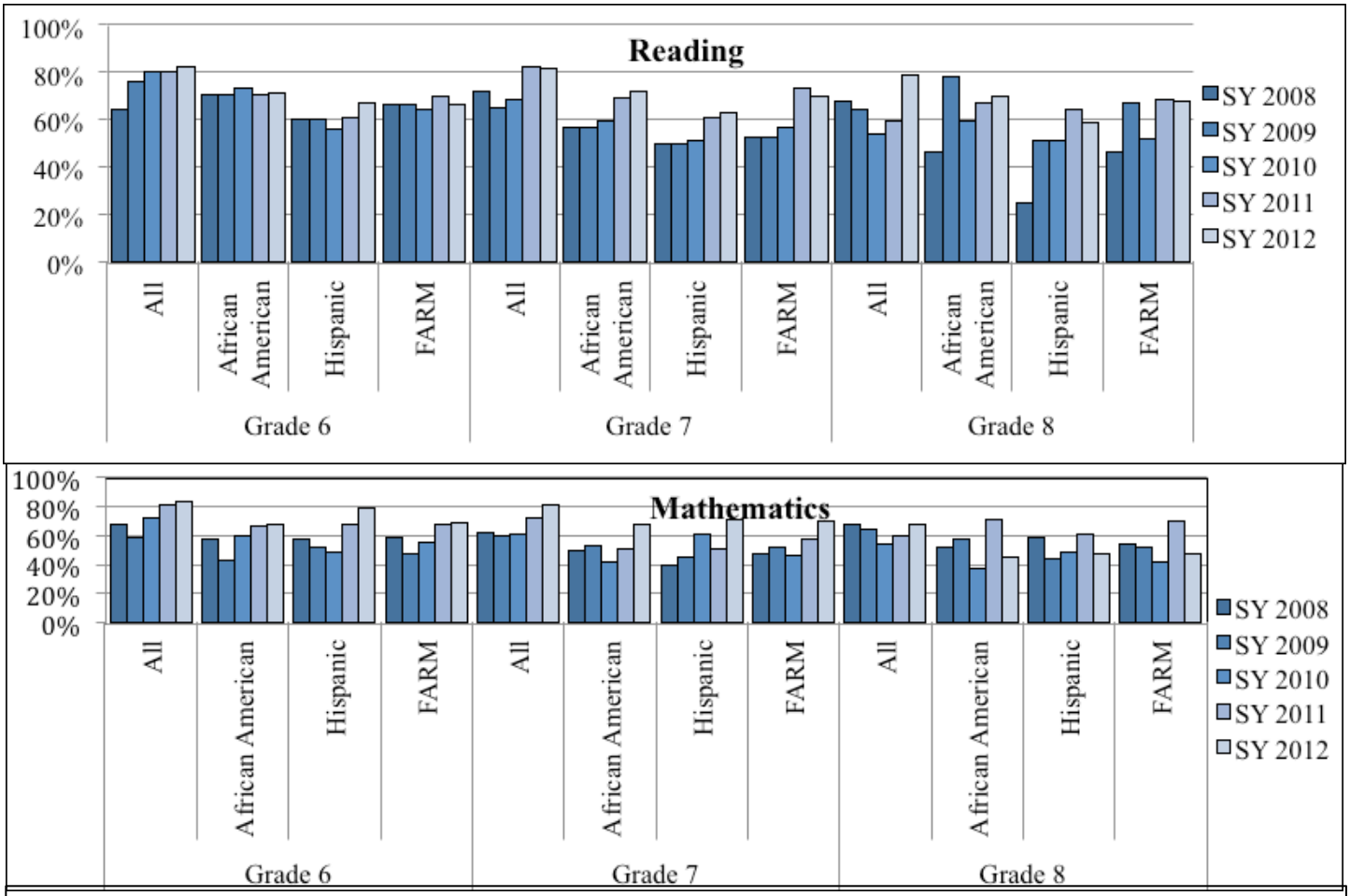



*Figure 8.* Percentage of students at or above proficient level disaggregated by grade and demographics at the MSA Reading and Mathematics from 2008 to 2012 (Jurich and Taylor 2012). *Data source: Maryland Report Card (*http://www.mdreportcard.org*)*

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 sixth grade and had been there for three years, those that had entered Bates in seventh grade and had been there for two years, and those who had entered Bates in eighth 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 Grade 6. In the Grade 6 Unit Test for Rational Number Concepts, more students received scores of Proficient of Advanced on the standard taught through Arts Integration than on the standards not taught through Arts Integration. This was especially true for Hispanic students (Table 8).

Table 8
*Percentage of Bates students receiving Proficient or Advanced on the Grade 6 Rational Number*

| 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 % 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 (SLEQ) 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 9).

**Response Scales**

- **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.

*Figure 9.* SLEQ response scales

Results show an overall positive increase in attitude towards Bates Middle School between 2009 and 2012. (In the below analysis, statistical comparisons are only provided when significant). 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 10, $p<0.01$ for all responses).

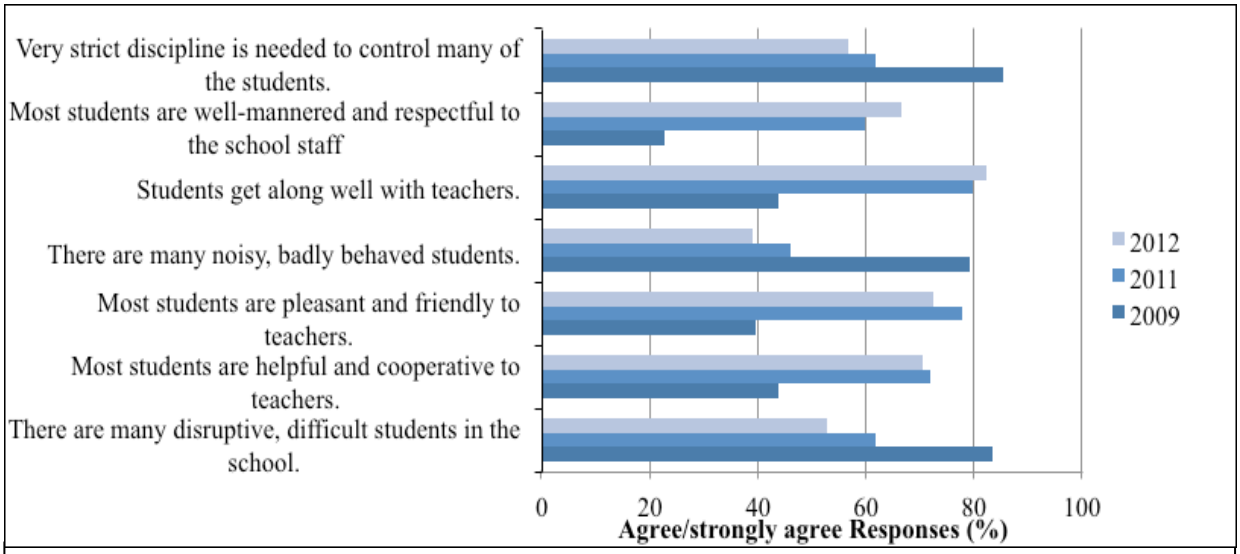



*Figure 10.* Changes in responses to the student support scale from 2009 to 2010. (Jurich and Taylor, 2012)

Survey responses also suggest that teachers have an overall more 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 11).

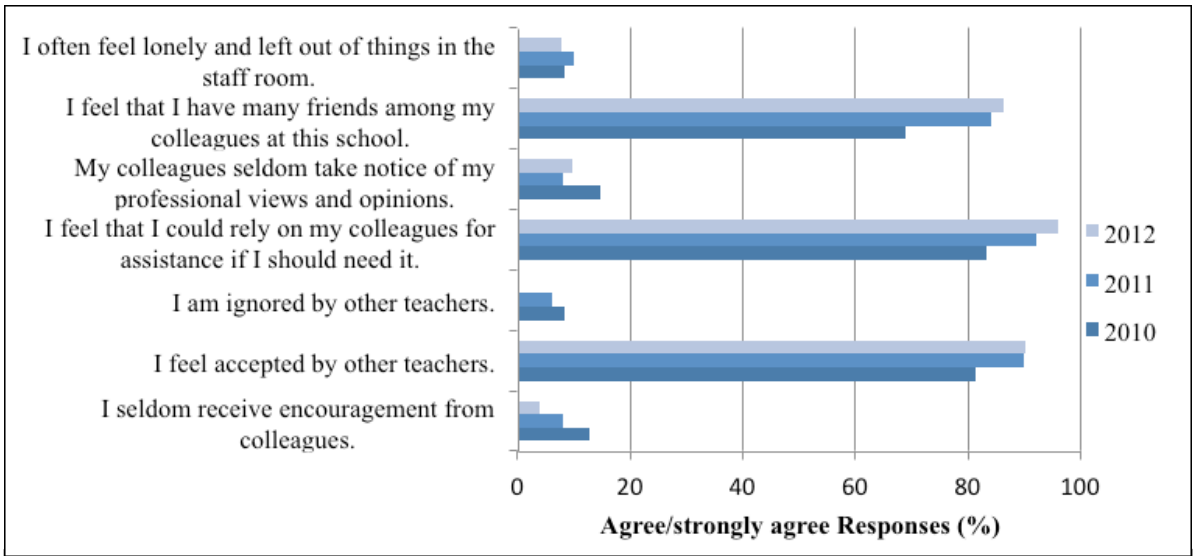



*Figure 11.* Changes in responses to the affiliation scale across the years. (Jurich and Taylor, 2012)

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 more strong professional interest in their colleagues in 2012 than they did in 2009 (Figure 12). Three of the seven items (Teachers are keen to learn from each other, teachers avoid talking with each other, and teachers frequently discuss teaching methods) show statistically significant results in the comparison of means test ($p<0.04$).

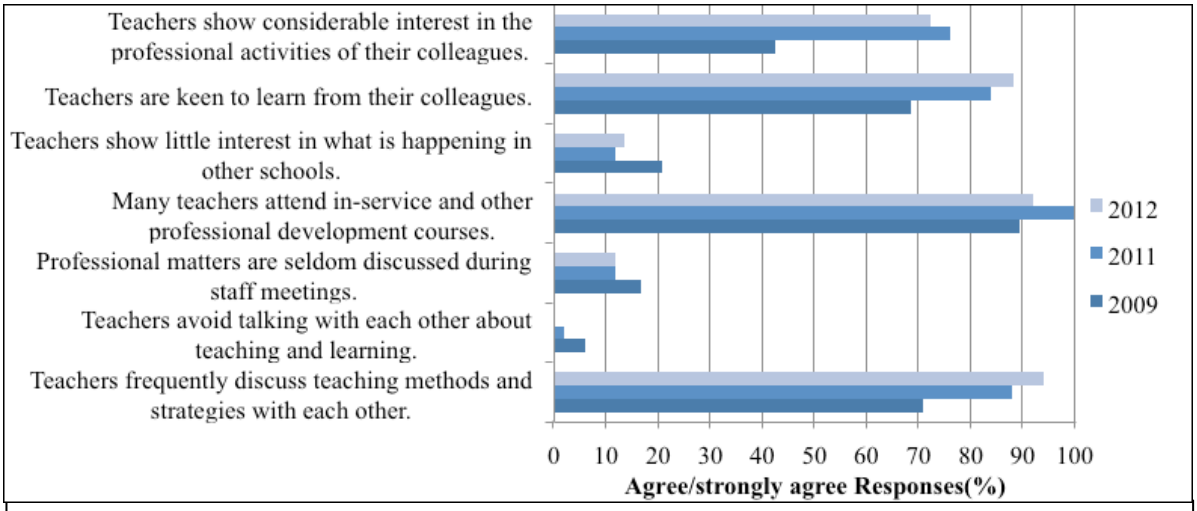
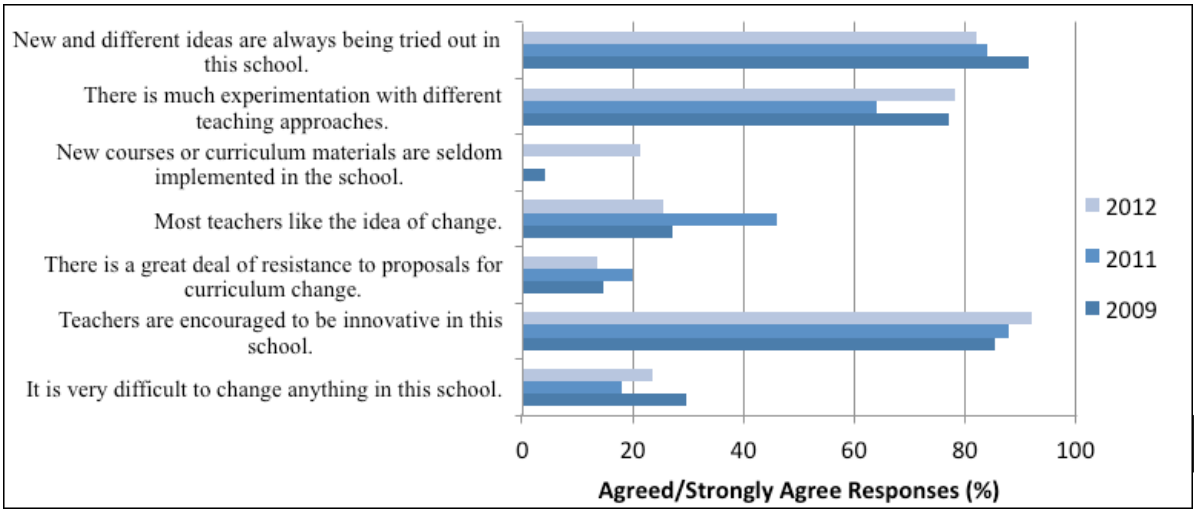



*Figure 12.* Changes in response to the profesional interest scale across the years (Jurich and Taylor, 2012)

Teachers also responded positively to statements related to innovation within the school. Most teachers felt encouraged to be innovative (92.2%) and affirmed 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 13).




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 that year, making the idea new 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 innovative ($p<0.040$).

The survey reports on teacher response to resource adequacy did not see the same increase across the years. While, in general, more teachers felt that multimedia resources were readily available in 2012 than 2009, fewer teachers agreed with statements regarding having adequate facilities, media equipment, and projectors (Figure 14).

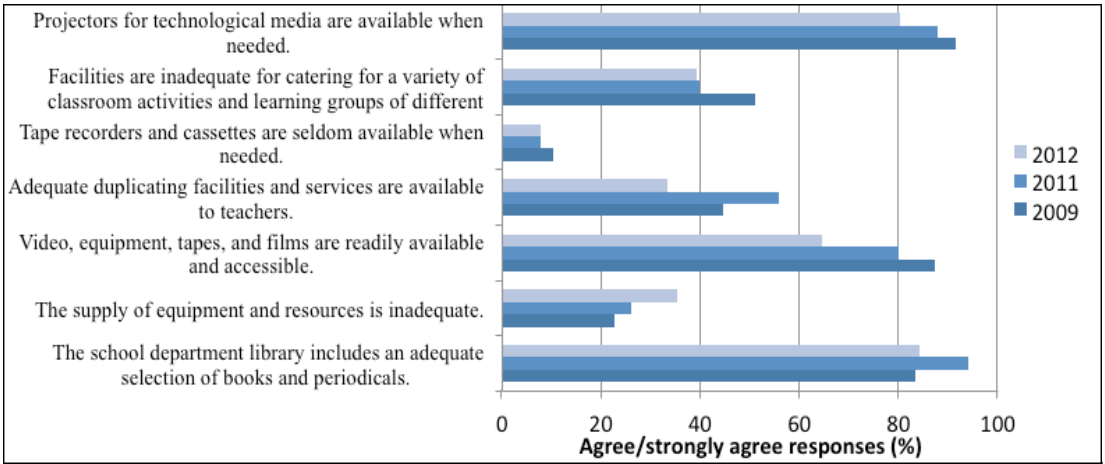



*Figure 14.* Changes in responses to the resource adequacy scale across the years (Jurich and Taylor, 2012)

However, as RMC reports, the seemingly decreased positive results over time 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). As more teachers became familiar with the resources in the school, more teachers requested these resources. It is reassuring, however, that when compared with 2009, fewer teachers in 2012 believed that the facilities themselves were inadequate for catering to their classroom activities.

Finally, the survey results show that teachers at Bates Middle School often felt 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 15).

Combined, all of these survey results indicate a more positive opinion in 2012 of their

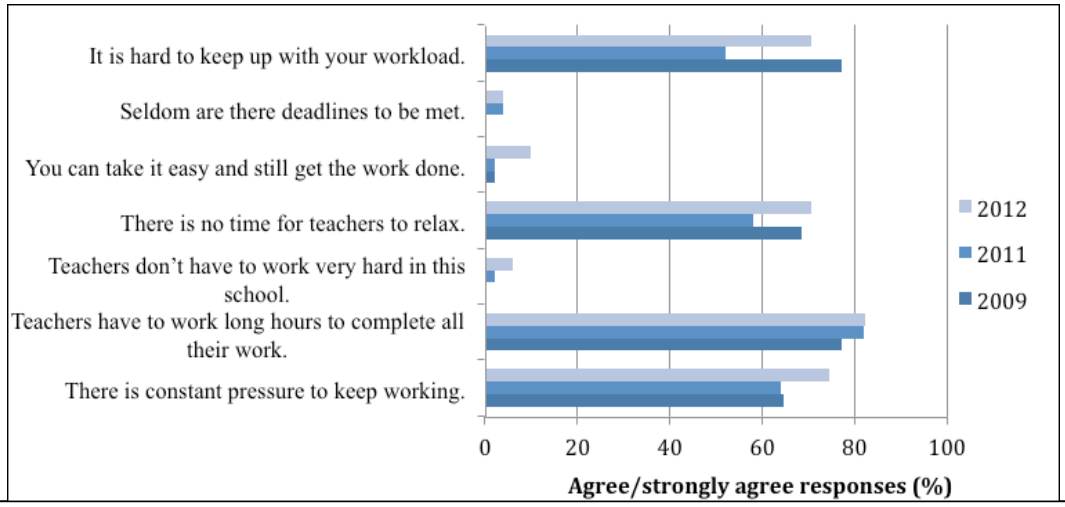



*Figure 15.* Changes in responses to the work pressure scale across the years (Jurich and Taylor, 2012)

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 from 2009 and

2012 between Bates Middle School and the control school (Table 9; *sum* equals the total number of referrals at the school).

Table 9
*Number of discipline referrals and referrals per student (2009 to 2011) (source: AACPS student data)*

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

There were two interesting "spikes" in the number of referrals at Bates Middle School. The first was between SY 2009 and SY 2010, the year that Bates Middle School was marked for Corrective Action. This new status may have resulted in adjustments to the school's discipline referral procedures, which may have resulted in more teachers writing referrals. The second spike occurred between 2011 and 2012. While referrals at Bates had decreased by almost 43% between 2010 and 2011, they spiked dramatically between 2011 and 2012 (an increase of 140%). However, this pattern was also seen in the Control school to an even greater degree (an increase of 224%), indicating that an outside factor, such as a county change in reporting discipline referrals, may have contributed to this increase.

It is worth noting that while the number of discipline referrals increased from 2009 to 2012, the total number of suspensions decreased by 44% at Bates between 2009 and 2012 (Table 9). At the same time, even though the total number of students enrolled in Bates Middle School remained relatively constant throughout each year of the project, the average number of student suspensions decreased.

Table 10
*Number of suspensions and average suspension per student (source: AACPS Student Data)*

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

Unlike referrals, there were no major increases in the number of suspensions each year. Evaluators recognized that while referrals, which can be subject to the mood of the teacher or an out-of-character outburst from a student, increased, the numbers of severe disruptive episodes resulting in student suspension decreased.

In addition, by 2012, average student attendance at Bates was greater than the average attendance at the control school (Table 11). 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 11
*Average attendance per school from SY 2009 to SY 2012 (source: AACPS Student Data)*

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

Together, these indicators suggest that the overall climate of Bates Middle School improved over several years. This improvement coincides with the increased implementation of the SAILSS model. Interviews collected by evaluators found that, anecdotally, teachers and parents acknowledged a correlation between Arts Integration and the school's improvement. In these

interviews, teachers cited a strong Arts Integration support system that which effectively allowed them to integrate the arts as a natural part of each day, stating "Arts integration makes learning more tangible, thus more visual" (Jurich and Taylor, 2013). 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. Representatives from the Parent-Teacher Association (PTA) also noted an increasingly strong parent involvement in the PTA, which they attributed to the SAILSS model. As an isolated example, one interviewee said that, "Arts integration has enabled parents to feel comfortable sending their [children] to this school again" (quoted in Jurich and Taylor, 2013).

## Discussion

From 2009 to 2013, Bates Middle School saw an increase in student achievement and in the overall school climate. 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 also decreased by almost 28%, and more teachers consider Bates students to be respectful, friendly, and cooperative than in 2009. While it is impossible to attribute the school's improvement solely to Arts Integration, the evaluation results do indicate that the collective elements of a comprehensive Arts Integration model, such as SAILSS, may provide an effective tool for middle school reform (Burnaford, Brown, Doherty, & McLaughlin 2007).

Many elements came together to contribute to the perceived success of the project. First, the SAILSS model included extensive focused PD designed to improve teacher effectiveness. This PD, while centered on Arts Integration, included accessible teaching strategies that could be implemented in any classroom. As teachers became more familiar with these strategies, their effectiveness in the classroom would have increased, even if their lessons were not focused around Arts Integration (Rooney, 2004). However, it is important to note that, regardless of the lesson itself, it was the SAILSS model that brought these strategies into each classroom throughout the school.

Another element contributing to the success of the model was that SAILSS was implemented with the full support of the administration. This support provided leadership and consistency throughout the school, ensuring that all teachers were using the same practices and strategies and so giving all students an equal education. As testimony to this administrative support, the new principal at Bates Middle School has since levied his staffing to continue to support the full time Arts Integration Specialist, even though the funding from the grant had ended. He has also built into 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 at 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.

Figure 16. Public Art as the result of AI experiences for students.

In addition, the SAILSS model has provided regular and extensive opportunities for both students and teachers to engage in the arts. Building off of the work of the school's regular arts

instructors, which has helped teachers make art a regular part of the classroom, the Artists-in-Residence programs 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 16).

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 with 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" (Figure 17). 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 recognize the accomplishments of their students.

Figure 17. Every student, teacher and staff member at Bates participated in the creation of the mirror math sculpture.

All of these elements—increased PD, administrative support, increased interactions with art and artists—support the success of the SAILSS Arts Integration model (Rooney, 2004). While we cannot give all of the credit directly to AI alone, it is clear that this project has launched Bates Middle School and the district as a regional leader in AI. Through our partnership with AEMS, teachers and administrators from Bates Middle School 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 schools 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 the county 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.

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 said: "[At Bates,] 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 nationally 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 (The full article can be found here: http://www.edutopia.org/stw-arts- integration). This recognition, though not an intended outcome, helps reinforce the respect that Arts Integration is gaining across the national stage.

Independent of the evaluation results, perhaps the most exciting attribution to the success of the model, is the ways in which this model has been embraced by other schools across Anne Arundel 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. In addition, six AACPS elementary schools have elected to become arts integrated schools with a seventh elementary school electing to become a STE**A**M (science, technology, engineering, art, and mathematics) school. This initiative is supported by a central office Arts Integration Specialist who has been hired full time as a result of the SAILSS project to work with lead teachers from the schools to promote professional development, support AI curriculum development, and facilitate artist residencies. All arts integrated lessons developed by the teachers, AI specialist, and Artists-in-Residence in the county have been shared through a website (http://www.aacpsartsintegration.org/) accessible to anyone around the world, exponentially extending the reach of Arts Integration across all schools. This increased access coincides with individual components of the SAILSS model that have been expanded to include a wider group of teachers and students. The 21st Century Arts Integration Institute, for example, is now open to teachers and administrators across Anne Arundel county and accepts 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.

Most important to the success of this project are the ways in which this model will be perpetuated beyond the end of the grant. With the support and dedication from the school's administration and AACPS, the Bates community has been transformed to one of self-sustaining Arts Integration. Through focused professional development with arts partnerships, teaching artists, and Artists-in- Residence and increased cross-disciplinary collaboration with a highly qualified core of art teachers, Bates teachers have become empowered as leaders in providing an integrated arts education for their students. The expectation is that this leadership will continue beyond the grant funding, continually reaffirming the collective elements of a model such as SAILSS as a powerful tool for improving low-performing middle schools.

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