Performing Arts Create Tools for 21st Century Learning: PACT 21

NEED FOR THE PROJECT

*Addressing the Specific Needs of Students at Risk of Educational Failure*

Performing Arts Workshop, Inc. (the Workshop) is a non-profit arts education organization in San Francisco, California dedicated to helping educationally and economically disadvantaged young people develop critical thinking, creative expression and basic learning skills through the arts. The Workshop promotes and provides high-quality learning in and through the arts for children and youth in the San Francisco Bay Area from preschool to grade 12. The Workshop’s teaching methodology, the “Cycle of Artistic Inquiry,” uses the creative process as a dynamic vehicle for improving student attitudes and learning. It has been tested, rigorously evaluated and refined in San Francisco’s classrooms for 45 years. Today, the Workshop reaches 9,000 youth each year through our two core programs: our flagship Artists-in-Schools (AIS) program, and our Artists-in-Communities (AIC) program. The Artists-in-Schools program, which launched in 1974, uses an innovative artist residency model in which a Workshop-trained professional teaching artist conducts a sequential, standards-based 30-week series of one-hour classes. Teaching artists, in partnership with classroom teachers, lead classes in Dance, Theatre Arts, Creative Writing, and Music with students designated as at-risk for academic failure. The Workshop has expertise in training artists in methods proven to engage the most difficult-to-reach students in the learning process; this learning enhances critical thinking, improves general attitudes toward school and emboldens learning in other subject areas such as math and language arts.
The proposed project, Performing Arts Create Tools for 21st Century Learning (PACT 21), will target 1,575 economically and educationally disadvantaged students in 21 classrooms over three implementation years at five Title I elementary schools in the San Francisco Unified School District:

**Mission Education Center.** A school for new immigrants from Central and South America, MEC serves a student population which is entirely comprised of English learners and low- or very low-income students.

**R.L. Stevenson Elementary School.** 54.7% of students are free/reduced lunch eligible, 74% are Asian (primarily Chinese), and 43.5% are English learners.

**Charles Drew College Prep Academy.** 76% of students at Charles Drew are African American; the balance of students are Latino, Pacific Islander and Asian. 79.4% qualify for free/reduced lunch.

**E.R. Taylor Elementary School.** 59.7% Asian, 26.5% Latino and 4.7% African American.

**Francis Scott Key Elementary School.** 56.5% of Key students are eligible for free/reduced lunch; 73% of its students are Asian; 44% are English learners.

Of the students attending these schools, roughly one-third will go on to attend two middle schools (Horace Mann and Everett) named in a report released March 8, 2010, by the California Department of Education as ranking among the state’s lowest-performing schools.

**Gaps in services, infrastructure, and opportunities to be addressed**

**Academic Disparities**

*San Francisco has the highest average student performance of the large urban districts in California and the widest gap between the district average and the lowest performing students.* (SFUSD Strategic Plan 2008-2012, *Beyond the Talk*).
Educational values drive assessments, and how student achievement is assessed in turn drives how and what teachers teach, as well as how and what students learn. Many education researchers and teachers alike (e.g. Black and William 1998; Darling-Hammond) have noted how the pressure of high-stakes testing in the past decade – a pressure particularly high in the lowest-performing schools – has had a chilling effect on teacher enthusiasm and innovation. This culture of high-stakes testing has pressured teachers to circumvent or avoid instructional moments viewed to be extrinsic to test preparation; thus, they are often unable to effectively respond to the spontaneous learning cues their students offer. When teachers lose the pulse of a classroom as a dynamic, changing environment, they consign students to a passive role that is less conducive to learning, retaining and applying concepts – skills that are critical for success in the 21st Century. Such narrowing of the curriculum and constraints on teaching and learning processes may be unintended consequences of the admirable effort to monitor and narrow the achievement gap. However, in California – and particularly in San Francisco – the culture of high-stakes testing aimed at accountability for the achievement gap appears to have created even greater educational disparities between low-income children and their more privileged peers.

In 2009, one in four California youth in the general population quit school. Among African American students, that rate is nearly doubled – 42% – and for Latino students the dropout rate is 30%. For every student who drops out, there are more who are staying in school but will not graduate with the college entry requirements for the University of California system. According to California Department of Education data released in May 2009, in SFUSD, dropout rates are 38% for African American Students and 22.4% for Latino students. A study of how this
disparity affects Latinos specifically found that, even for Latino students able to attend a two-year community college, transfer rates are extremely low, keeping the number of four-year college graduates among Latinos equally low (Chavez et al, 2007). In general, the ramifications for young people of color are profound: Students who fail to graduate high school prepared to attend a four-year college are much less likely to gain full access to economic, political, and social opportunities.

**Disparities in arts learning opportunities**

A parallel inequity exists for students in low-income communities regarding access to the arts in and out of school. Children in higher-income classrooms are more likely to experience the arts through their own family’s efforts, well-funded schools and/or community programs. Children in lower-income classrooms are sent the message that they do not “deserve” the arts unless they first demonstrate testing competence in the traditional academic subjects of math and language arts. It should never be questioned that reading and math are essential to education, and they should be taught and tested rigorously. But the implied claim – that the arts can somehow be held apart from that process – is blind to an abundance of practitioner experience, compelling research and empirical evidence underscoring the essential role of the arts in learning and development, and therefore in an excellent and complete education.

The young people in San Francisco’s diverse neighborhoods bring to their classrooms rich cultural histories and experiences. Workshop teaching artists integrate this diversity into their performing arts lessons, placing students’ life experiences within broader historical and cultural contexts and using them to elicit personal connections through solution-seeking and critical thinking. The arts serve as the ideal way to help teachers reach all students, engage them in rigorous critical thinking and problem solving across content areas. The arts are essential to
developing productive and resourceful people prepared to take on the complex challenges of work and life in the 21st century.

SIGNIFICANCE OF PROJECT

One of the underlying aims of the Workshop, realized with increasing success over the past decade, has been to demonstrate the multiple benefits of arts learning. Specifically, the Workshop has demonstrated the potential for a sequential, long-term, standards-based artist residency model to spark interest in learning and creating; to encourage hard-to-reach students to stay in school; and to help young people expand their sense of what is possible in their lives and in the world they will encounter as adults. An abundance of research (notably Eisner, *The Arts and the Creation of Mind, 2002*) underscores the essential function of arts learning in body and mind development for young children. The workshop’s decades of experience working with children placed at risk in the educational system is that they must be drawn into the joy of learning at this critical early age.

The cornerstone of the Workshop’s model has been its emphasis on attending to the learning needs of the individual student. Each student learns differently, and as been more formally recognized with the work of Howard Gardner (1983), effective teachers must be adept at aiming curriculum and instructional techniques at the full spectrum of intelligences and learning styles for a fully engaged and inclusive classroom. Arts have the demonstrated capacity to reach all students at the individual level, to ignite their curiosity and love of learning in other subjects. The performing arts in particular have an even greater capacity because they can engage students with a wider variety of learning styles and abilities. The Workshop trains and develops teaching artists to determine the skill and ability levels of each student, and thus the best entry point for each student into artistic inquiry. Teachers and teaching artists can work
together to identify the skill levels of their classrooms as a whole and of individual students and then collaborate on ways to tailor the artist’s lesson plans to the diverse skill levels of each class.

The Workshop has contributed evidence to a growing understanding of what cognitive and affective skills are developed in arts education in order to help build the case for institutionalizing the arts in public education for all students. This work has involved examining the arts curriculum content (what is taught); arts pedagogy (how it is taught, and by whom); and outcomes for students (what students can do or achieve). Outcomes from the Workshop’s current U.S. Department of Education AEMDD Arts Residency Interventions in Special Education (ARISE) project – Artists-in-Schools (AIS) residencies targeting Special Education students – indicate the power of the Workshop’s residency model and teaching methodology:

- Students in AIS residencies show gains in comfort expressing new ideas, learning information quickly and retaining new information;
- AIS teaching practices mitigate disadvantages for “at-risk” students. Students who may not achieve at the same level as their peers academically can excel in the performing arts, improving their confidence, self-efficacy and levels of focus in other academic areas.

Evaluation outcomes from a variety of qualitative and quantitative data sources demonstrate that AIS residencies help teachers learn new teaching techniques to use in the classroom.

What’s more, the ARISE report found that English learners also receive unique benefits from the Workshop’s artist residency model such as improved language acquisition skills.\(^1\) The potential for the Workshop’s programs to contribute to a complete and meaningful education for the

\(^1\) Available on the Workshop’s online resource center at
http://www.performingartsworkshop.org/pages/resources_administrators.html#13
students at the proposed PACT 21 project sites – the majority of whom are English learners – is profound.

From the past three decades of AIS programming, five dimensions to building a strong model for program replication have emerged: 1) Assessment Development; 2) Teaching Artist Development; 3) Teacher Development; 4) Curriculum Development; and 5) Administrative Development. These dimensions served as the basis for the best practices curriculum guide that Workshop staff and our external evaluator the Improve Group completed during the 2004-2005 academic year, available free of charge on the Workshop’s website.

Curriculum Development. The Workshop has presented the fundamentals of its “Cycle of Artistic Inquiry” in our book On Stage in the Classroom. The more recently completed “Lessons from the Workshop: Best Practices in Performing Arts Education” guide has helped to refine curriculum development as well as assist in the administrative replication of the program model. For over thirty years, the Workshop has partnered with classroom teachers to integrate the arts into classrooms. Since 2006, the Workshop has refined a program of teacher coaching that aligns the Workshop’s “Cycle of Artistic Inquiry” with the K-5 classroom curriculum and educational standards. Experienced Workshop teaching artists coach classroom teachers on ways they can regularly apply the Cycle in their classrooms. How might teachers bring students’ own expression forward in a language arts class? How might students be guided to reflect on their own academic projects? How could a classroom teacher bring students to a point of re-visioning that work to deepen the lesson’s learning in a new way? Workshop teaching artists tackle these questions every day when they build a standards-based, arts-integrated curriculum with classroom teachers in a one-on-one coaching partnership.
Assessment Development. The Workshop has developed Student and Teacher Assessments to guide our own replication efforts within the Bay Area, helping us to realize that the AIS model is adaptable, not only across all four arts disciplines, but throughout pre-K-8 education. The Workshop has distributed these scoring rubrics to other arts and education organizations across the country and has published them online free of charge.

Teacher Development. Each of the Workshop’s trained teaching artists actively involves the regular classroom teacher in building and extending the arts experience across the curriculum. In turn, the artist also cooperates by modifying and adapting the Workshop’s curriculum to reinforce and extend the classroom learning objectives into the arts. This collaboration, long an essential feature of the AIS model, will be further developed and refined to increase the engagement of the teacher in the research dimension of the program. In particular, PACT 21 will draw on important lessons learned from the Workshop’s 30-year history of providing professional development to the SFUSD through workshops and training, as well as our more recent history of one-on-one teacher coaching. In order to have a lasting impact, effective teacher development must pair one-on-one planning sessions outside of class with in-class practicum. Teaching artists partner with teachers outside of class to co-develop and refine curriculum, while also implementing and refining their shared curriculum during class time. The result is a stronger arts integration curriculum based on the needs of classroom teachers and students.

Administrative Development. Support from administrative leadership is critical for a truly integrated artist-in-residence program that has a lasting impact on student performance and school culture. The Workshop will continue to communicate to principals and the school community that a curriculum in artistic inquiry should be sequential, with each lesson building on the next. The Workshop will continue to partner with principals to better understand how we
can help meet the needs of their students. PACT 21 will help each partner site move toward its goals for 21st century learning, aligned with the SFUSD’s recent Strategic Plan and codified in each school’s site-based education plans, known as “Balanced Scorecards.” Workshop staff and principals will meet regularly to discuss and be intentional around how the arts can help meet benchmarks of each individual school’s Balanced Scorecard. In partnership with principals, Workshop staff will meet to design school-based workshops for participating teachers that builds on their one-on-one coaching sessions. Together we can demonstrate how an arts-rich school benefits administrators and teachers as well as students, by building a more cohesive, lively, joyful school.

As we have done with our 2003 AEMDD Demonstration Project and 2006 AEMDD ARISE Project, the Workshop will produce practical tools useful to general education teachers and principals in K-5 education. The Workshop’s curriculum guide, Lessons from the Workshop: A Guide to Best Practices in Performing Arts Education is a colorful, inviting, user-friendly manual designed to spur enthusiasm among educators, administrators, parents, and arts organizations for starting or improving on their own arts programs. Intended to reach the widest audience possible and to inspire educational innovation through the arts, it is clearly written and includes both encouraging anecdotes and practical caveats about real classroom challenges. The Workshop’s accomplishments over the past decade have been recognized by UNESCO, the U.S. Department of Education, the American Educational Research Association, and the National Endowment for the Arts and have recently been featured in Youth Today magazine and IssueLab, an online compendium for research on promising social practices. [For more details on the Workshop’s dissemination processes, products and methods, see our Invitational Priority 5 response, attached].
PROJECT DESIGN

a. Project reflects up-to-date knowledge from research and effective practices.

Research shows that learning is deepest when students have the capacity to represent and apply what they have learned. Not only do the experiential capacities of the performing arts help draw in the widest variety of learners – students across the spectrum of abilities not being reached by a basic skills-driven traditional curriculum – but they also provide a full range of representational modes for the broad spectrum of thinking and learning styles students bring to classrooms (Fiske, 1999). External research and the Workshop’s program evaluations show that a culturally responsive, critical-thinking based arts curriculum and pedagogy has the capacity to disrupt the demographic predictability of academic achievement.

An increasing number of researchers are finding compelling evidence of a relationship between arts education and academic achievement, including improved student attitudes and school environments for children from all cultural, racial, and socio-economic backgrounds. A statistically significant study focusing on struggling learners, including low-income students of color and English learners in urban schools, demonstrates that schools with more arts programming have higher graduation rates for these “at risk” groups (Center for Arts Education, October 2009). Some researchers are finding correlation and causality between arts learning and improved reading comprehension (e.g. Catterall, et al. 2002; also the Workshop’s own previously cited ARISE evaluation findings). Just as important is a set of effects related to attitudes and increased academic motivation. Other recent studies are looking at how music learning enhances math literacy.

There is a need to continue to develop robust and reliable ways to measure the full impact of arts learning on intellectual and social development, to include the full spectrum of skills,
habits, and dispositions cultivated through arts learning. Research over the years has shown that how student learning is assessed can play an important role in a student’s overall learning. As Resnick and Klopfer (1989) point out, content and process are inextricably linked, making it extremely important to assess students in meaningful ways if they are to master the content. Cognitive psychologists studying how individuals learn have come to an understanding that “mere acquisition of knowledge and skills does not make people into competent thinkers or problem solvers. To know something is not just to passively receive information, but to interpret it and incorporate it; meaningful learning is reflective, constructive and self-regulated” (Wittrock, 1991; Bransford and Vye, 1989; Marzano et al., 1988). Performance-based assessments are consistent with modern learning theories and also help teachers employ what the profession considers to be best practices. A report on the Maryland School Performance Assessment Program (Koretz, 1996) found that in implementing performance-based assessment, teachers changed their instructional practice to emphasize cooperative work, focus more on writing, problem-solving and real-world hands-on activities. Teachers also report that the open discussion of performance standards and the professional development received around scoring the assessments were powerful professional development experiences.

PACT 21 will develop performance-based assessments that will help measure the broad skills and dispositions defined by a cross-disciplinary group of academics, policymakers and business leaders as 21st century skills: critical thinking and problem solving, communication, collaboration, and creativity and innovation (Partnership for 21st Century Skills). The existing Workshop-developed student performance rubrics are the products of our extensive research and program development; this project will enable us to take them to the next level, to developing authentic assessments that complement the data we have collected in the past and also provide a
powerful complement and counterpart to summative assessments (both CSTs and school-administered). The performance-based assessments for 21st century skills as taught through the performing arts will enable classroom teachers and administrators to measure their students’ progress in critical thinking and problem solving; communication; collaboration; and creativity and innovation.

Several questions drive our work: To what extent does learning in the arts help prepare students for college, life and work in the 21st century? What are the reliable and replicable methods of measuring and demonstrating this learning? How do the performing arts and 21st century learning skills help improve student achievement in math and language arts?

The Workshop will partner with the SFUSD over a four-year period to build on the body of scientific research and evaluation we have conducted in Bay Area schools by examining the efficacy of a resident artist model for building school district capacity to meet 21st century learning goals. We will do this by 1) Conducting artist residencies, through our Artists-in-Schools program, at five Title I elementary schools serving socio-economically disadvantaged children in grades three, four and five; 2) Developing a performance-based assessment that maps to the San Francisco Unified Schools District’s Strategic Plan and Arts Education Master Plan goals (including specific focus on 21st century learning skills); 3) Provide professional development to participating teachers and principals to build their capacity to establish Professional Learning Communities focused on arts-integrated 21st century education; and 4) Document the implementation and achievements of the model and disseminate findings, resources and tools for educators so the program and/or assessment model can be replicated in other school communities.
PROJECT ACTIVITIES AND BENCHMARKS

**Year 1: Planning Year**

- Refine logic model showing the relationship between the Workshop’s youth learning outcomes and 21st century learning outcomes
- Formalize partnerships and contracts with five SFUSD schools
- Create a framework and tools for assessing student acquisition of 21st century skills through the arts
- Refine existing assessment of student learning in the arts (developed in previous AEMDD grants)
- Improve framework for assessing student proficiency in math and reading so that standardized tests, authentic assessment and teacher observations provide a full, complementary set of data on student proficiency and skills development
- Pilot assessment methods in AIS classrooms and revise
- Identify five teaching artists and train them in the Workshop’s methodology and 21st century learning concepts
- Facilitate teacher and artist development of curriculum, lesson plans and activities
- Obtain IRB approval for evaluation design
- Outreach to broader group of 21st century learning stakeholders (e.g. Partnership for 21st Century Learning) and engage them in review of assessment model

**Year 2 – Implementation Year 1**

- Match trained artists with 21 classrooms serving approx 525 students (Cohort 1)
- Obtain consent from students to participate in the program and in evaluation activities
- Conduct 30-week artist residencies in the 21 classrooms across five schools
Performing Arts Workshop, Inc.
2010 Arts in Education Model Development and Dissemination

- Train teachers and artists about their program and evaluation responsibilities
- Conduct evaluation activities: pre- and post-test assessments, observations, focus groups and gather standardized test and attendance records
- Convene teachers and artists for on-going professional development on 21st century learning and the arts as well as conduct one-on-one coaching for all 21 teachers
- Analyze degree to which students, schools and systems are meeting proposed outcomes and adjust program implementation accordingly
- Report on progress to U.S. DoE
- Begin design of 21st century learning and the arts online Resource Center

**Year 3 – Implementation Year 2**

- Continue to support matches between trained artists and 21 classrooms serving approximately 525 students (Cohort 2). [Note: we estimate that about 90% of teachers will continue participating in the program each year, and that we will have to recruit 1-2 new teachers in Years 3 and 4].
- Obtain consent from students to participate in the program and in evaluation activities
- Provide 30-week artist residencies in the 21 classrooms across five schools
- Train teachers and artists about their program and evaluation responsibilities
- Conduct evaluation activities: pre- and post-test assessments, observations, focus groups and gather standardized test and attendance records
- Convene teachers and artists for on-going professional development on 21st century learning and the arts as well as conduct one-on-one coaching for all 21 teachers
- Analyze degree to which students, schools and systems are meeting proposed outcomes and adjust program implementation accordingly
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- Report on progress to U.S. DoE
- Disseminate lessons learned about assessment, 21st century learning and the arts through Workshop’s online Resource Center and conference presentations

**Year 4 – Implementation Year 3**

- Continue to support matches between trained artists and twenty-one classrooms serving approximately 525 students (Cohort 3).
- Recruit new teachers as needed
- Obtain consent from students to participate in the program and in evaluation activities
- Provide 30-week artist residencies in the 21 classrooms across five schools
- Train teachers and artists about their program and evaluation responsibilities
- Conduct evaluation activities: pre- and post-test assessments, observations, focus groups and gather standardized test and attendance records
- Convene teachers and artists for on-going professional development on 21st century learning and the arts as well as conduct one-on-one coaching for all 21 teachers
- Analyze degree to which students, schools and systems are meeting proposed outcomes and adjust program implementation accordingly
- Report on progress to U.S. DoE
- Disseminate lessons learned about assessment, 21st Century Learning and the arts through Workshop’s online Resource Center and conference presentations
- Disseminate lessons learned about assessment, 21st century learning and the arts through published materials and reports (web- and print-based)

**How the Artists-in-Schools program works**

The AIS program offers public schools weekly, artist residencies lasting the length of the school
year (30 weeks) in the following art forms: Theatre Arts, Creative Writing, Music and Dance. All Workshop teaching artists must have two to three years of teaching experience prior to joining the Workshop; they undergo a mandatory eight-week internship under an Artist Mentor and/or Artistic Director; and they continue to refine their instructional practice in monthly learning circles to troubleshoot curriculum development challenge, behavior management strategies, and other issues.

Prior to the first hours of instruction, a trained Workshop teaching artist will meet with each teacher to create goals, share initial curriculum ideas for integration, and discuss relevant student information. Following the Workshop’s tested teacher coaching model, all participating classroom teachers will additionally meet eight times one-on-one with their teaching artist. Together, they will debrief each residency class and co-create and co-implement an arts-integrated curriculum that addresses the teacher’s stated goal for her students.

**What makes Artists-in-Schools unique**

One of the Workshop’s greatest strengths is our teaching framework, the Cycle of Artistic Inquiry, which has been applied and revised over four decades in the laboratories of Bay Area schools. Our framework emphasizes skills of inquiry in a process proven to facilitate learning across core academic subjects. It also encourages habits of mind that will be essential for healthy development as well as preparation for work and life in the 21st century, in a workplace where social and global awareness, creativity, innovation, and flexibility of mind will carry the day. In a Performing Arts Workshop classroom, youth who perform poorly in a traditional academic setting are offered different ways to succeed. Again and again, teachers observe and document how this builds self-confidence in marginalized students and a connection to learning that can carry over into other subjects.
Through the keyhole: A view of a typical residency

Each weekly class begins with a warm-up exercise that brings students’ focus and concentration into the room and establishes trust within the group. The teaching artist introduces an improvisational exercise to be explored in small groups; be it a theatre, dance, music or writing class. The exercise is followed by peer critique, which includes observation, application of general aesthetic and discipline-specific concepts, and suggestions for improvement and revision. These exercises connect students to the Workshop’s core artistic method, what we call the Cycle of Artistic Inquiry, which develops and deepens problem-solving, collaboration and communication skills through arts engagement. Developed by AIS advisor and subject matter expert, Dr. Richard Siegesmund (2002), and evaluated over three decades, the Cycle of Artistic Inquiry emphasizes the dynamic and overlapping flow of perception, conceptualization, expression, reflection and re-vision of a problem in a process proven to facilitate learning in other core disciplines and effective across a wide spectrum of students’ ages and abilities.

To engage students in the Cycle, the teaching artist will introduce general questions of inquiry based on life experiences and observations that become increasingly discipline-specific as artists and students probe deeper into a creative problem. For example, in a first grade World Music class, the artist might initiate a discussion of students’ perceptions with the questions “What is
music?” and “Can music be made by striking two sticks together?” By the time the artist has moved the class to the “reflection” phase, she may ask a question that encourages students to connect the concepts they have learned and apply them to their new experiences: “As you clapped the salsa and rumba beats, did the accents make you move in a different way? How so?” In this way, the Cycle of Artistic Inquiry gives structure to the organic process of critical engagement with art: learning to experience art; engaging in the study of craft and skills; increasing comfort with making art; improving one’s ability to critically assess the work of artists and their peers; and reflecting and revising one’s work based on peer feedback.

At the heart of the Workshop’s model of inquiry is an approach to problem-solving essential to the transfer of critical thinking skills. The Workshop’s process of inquiry begins with the perception of a problem and takes the student through the process of reflection that leads to a re-vision or re-formation of the initial solution. By structuring our curriculum on skills of inquiry in addition to the technical skills of an arts discipline, the Workshop’s teaching framework is well-suited for supporting learning in diverse subject areas and strengthening a wide spectrum of students’ abilities. This transfer becomes powerful when the general classroom teacher draws specific connections to the Workshop's sequence of inquiry within a particular subject area outside of the arts through their own arts-integrated lessons developed in partnership with the teaching artist.

*The extent to which the proposed project is part of a comprehensive effort to improve teaching and learning and support rigorous academic standards for students.*

The Performing Arts Workshop has defined the specific skills that students gain when they learn in a Workshop classroom: Leadership, Relationship-building, Focus and Concentration, as well as Vocabulary, Participation, Peer Critique, and Pro-Social Behavior. Recently, the Workshop
was invited to partner with the SFUSD through the New Day for Learning Initiative. This initiative works in partnership with the SFUSD on defining 21st century skills and determining the joint roles of community and school district in building those skills in students. At the same time, Workshop Executive Director Tom DeCaigny served as a member of the SFUSD Arts Education Master Plan Steering Committee; the plan is one indicator that SFUSD administrators and curriculum specialists have recognized the arts as core to education reform efforts seeking to deliver a complete and equitable education to every child. In 2006-2007, the SFUSD began implementation of the Arts Education Master Plan; the plan calls for robust professional development in the arts for teachers, principals, and arts coordinators at every elementary school site.

The Workshop co-authored a white paper to highlight the intersections between the district’s Arts Education Master Plan and the values of educational equity at the heart of the district’s strategic plan, Beyond the Talk. The strategic plan aims to develop joyful learners who will succeed in life and work in the 21st century; it articulates a broad reform effort for reducing the predictive power of demographics and closing the achievement gap that leaves Latino and African American students at a radical disadvantage compared to their peers. The white paper is a call for action, including how educators can use the arts as a culturally responsive, 21st century vehicle for school and district-wide change.

PACT 21 builds a model to answer that call. The Arts Education Master Plan (AEMP) and the district strategic plan recognize the importance of supporting and training teachers to educate every child well. The Arts Education Master Plan’s design of principal and teacher-based professional development focuses on the inclusion of the arts in every classroom, at every level. It also calls for the inclusion of the arts as core to the curriculum. These two AEMP goals
are aligned with the strategic plan’s Equitable Learning Communities and 21st Century Curriculum Initiatives.

Artful classrooms are safe, inclusive, and dynamic places of learning – exactly the kinds of learning environments described in the SFUSD’s 21st Century Curriculum Initiative. The initiative states that learning must be “personalized, relevant, meaningful and engaging for each student,” while at the same time teaching 21st century skills of creativity and critical thinking (Beyond the Talk, p. 10). Quality arts learning through the Workshop’s program provides students with just this kind of dynamic education, while our professional development model focuses on strengthening teacher practice in these areas.

While the SFUSD has defined 21st century skills as a particular goal of teacher professional development and curriculum development over the course of its strategic plan, the district has yet to identify any method for assessing its progress in building those skills in its students. As long as the California Standards Tests (CSTs) remain the only formal method of assessment, SFUSD teachers will face a catch-22: a district-wide mandate for 21st century skill-building, and no formal assessment to evaluate if or how those skills are being taught. By studying the connections between arts-based learning and the acquisition of 21st century skills, Performing Arts Workshop will develop two performance-based assessments: one that is specific to the Artists-in-Schools program, and one that is relevant to broader assessment of 21st century skills acquisition in other classroom settings.

The Workshop was one of the first organizations in the field to go beyond the technical language of the state Visual and Performing Arts (VAPA) standards to develop student outcomes that describe the kind of learning that results from the creative process. Our outcomes complement the 21st century skills identified by the SFUSD. The next step is to integrate the two
and define proper assessment tools and strategies for evaluating each.

*Project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.*

AIS residencies play a pivotal role in shaping the cultural competency of teachers and administrators, and a school’s capacity to embrace arts learning across the curriculum. PACT 21 will provide professional development in the arts for teachers, principals, and Arts Coordinators. The SFUSD strategic plan calls for equity-centered Professional Learning Communities (PLCs). With principals as key project partners, Workshop staff will co-design and implement school-based professional development workshops to complement one-on-one teacher coaching. Principals will meet together as their own Professional Learning Community four times during each implementation year to evaluate the impacts of the project on instructional leadership and overall school goals as defined in their schools’ Balanced Scorecard.

As part of the PACT 21 residencies, participating classroom teacher will be required to actively collaborate with the teaching artist in teaching the weekly curriculum as a co-instructor. For eight consecutive weeks at the start of the residency, the artist and teacher will meet one-on-one for an hour to debrief the prior residency class and co-plan the upcoming class. Artist and teacher will also meet once mid-way through the residency (15 weeks) to revisit their goals and assess their progress as a team as well as complete an end-of-year review meeting to reflect on the partnership.

In partnership with the SFUSD, the Workshop will provide four workshops for classroom teachers focusing on the connection between particular 21st century skills and arts learning in the classroom through theatre, creative writing, music and dance. The Year One planning phase of the PACT 21 project will enable the Workshop to further refine the professional development
program for classroom teachers and principals, to train Workshop teaching artists in one-on-one coaching, and align the model with the SFUSD’s professional development needs.

The literature confirms that educators who collaborate on curriculum, pedagogy, student behavior or any other academic issue learn from each other and are better able to integrate change in their classrooms than teachers who receive traditional professional development only (Brownell et al., 2006). The teacher action research conducted as part of the Workshop’s 2006 ARISE Project lends proof to this finding and will be the basis for additional teacher action research in the PACT 21 project. Each project year, teachers will be invited to design an action research project for their classroom. Teachers will have access to technical assistance and guidance provided by the Improve Group, the Workshop’s external evaluator on the prior two AEMDD projects and the evaluator of the proposed PACT 21 project.

The project will join teachers and teaching artists in collaborative planning for arts-integrated lessons. Teachers will be able to discover ways in which learning through the arts can benefit their students academically and socially in the classroom. Teachers who have participated in previous Artists-in-Schools residencies cited ways that the focus their students developed during the residency sessions carried over into other academic tasks. Additionally, they noted how arts residencies allowed their students to develop skills of empathy and cooperation that allowed them to work together as a team more effectively. By imparting this pedagogy to math, science and English teaching staff, through professional development as well as classroom collaboration, we also see great potential for institutionalizing the benefits of arts education after the project ends, helping the district to the meet its call for Professional Learning Communities to build teacher capacity for culturally responsive teaching and learning.
Our own research results have indicated that when teachers and teaching artists score high on the Workshop’s *Teaching Skills* rubrics, their students, in turn, score high on the *Learning in and through the Arts* rubric. The goals of the professional development workshops and one-on-one coaching sessions between artists and teachers will be to:

- Refine the Workshop’s model curriculum, now in its second decade of research, in the context of the 21st century learning reform movement;
- Develop new standardized lesson plans that address the National Arts Standards, CA Visual and Performing Arts Content Standards, and 21st century learning goals so they can be assembled for replication;
- Increase team-teaching capacity of classroom teachers and teaching artists;
- Improve classroom management skills and cultural competency of teaching artists and classroom teachers; and
- Refine teachers’ understanding of the nature of 21st century skills in the classroom and how to build those skills through the arts.

**PERSONNEL**

**Jessica Mele, Project and Deputy Director.** Since joining the Workshop in 2006, Jessica has integrated her academic research interests in education and her work experience in the design, implementation and management of core Workshop programs, including the 2006 AEMDD project (ARISE) and a preschool project with First Five San Francisco, serving 2,000 youth annually. Jessica also co-designed and implemented the teacher coach project at Performing Arts Workshop, through which she has built strong partnerships with SFUSD staff. From 2002-2005, Jessica managed the budget, evaluation, data, and reporting of the academic research projects of Marshall Ganz at the Kennedy School of Government at Harvard University. She
brings her experience in budgeting, contract management, and evaluation from these prior endeavors to the PACT 21 project. Jessica holds a B.A. in Anthropology and French Studies from Smith College and an Ed.M. in Education Policy and Management from the Harvard Graduate School of Education.

**Karena Salmond, Program Manager for Artists-in-Schools.** Karena joined the Workshop in 2007 as Program Manager for the Artists-in-Schools program. She has spent the last three years involved with the Workshop’s 2006 AEMDD ARISE project targeting Special Education students in low-performing San Francisco schools, during which she developed key site relationships, assisted with data collection, as well as mediated and devised pragmatic solutions to a variety of program implementation challenges. Karena also contributed to the project’s dissemination plan by presenting key findings at regional conferences and professional development workshops. Prior to joining the Workshop, Karena held roles as an arts educator in San Francisco and a Program & Research Assistant at Chicago Children’s Museum. She has a B.A. in Fine Art from Kalamazoo College and a M.A. in International & Multicultural Education from the University of San Francisco.

**Artistic Director, Gary Draper.** Gary has more than 30 ears of experience as a master teaching artist and artist mentor – 26 of them at the Workshop. He has facilitated arts learning in K-12 educational settings as well as juvenile detention centers, transitional housing facilities, afterschool programs, and pre-school programs. He has conducted professional development training for classroom teachers on the topics of classroom management, “teacher as performer,” and reaching special needs students through the performing arts. Gary studied theatre and dance at UC Berkeley.
External Evaluator, The Improve Group, Leah Goldstein Moses, Principal. As the Principal Evaluator for the PACT 21 project, Leah brings her expertise in research design and collaboration with a variety of local, state and federal agencies with an emphasis on education programs. In the past decade, she has conducted numerous large-scale evaluations of projects in public school settings from education reform to safe schools/healthy students. Leah has worked on several projects recently that are directly related to the Workshop’s AIS evaluation; as principal evaluator for both the 2003 and 2006 AEMDD project focusing on Special Education students (ARISE), her firm brings lessons learned on the challenges of quasi-experimental methods and the importance of designing a plan that affords analysis of a broad cross-section of both qualitative and quantitative data. She holds a B.A. from Macalester College and a M.U.R.P from the University of Minnesota’s Humphrey Institute.

Deborah Mattila, Research and Evaluation Director. As evaluation lead for the Workshop’s 2003 and 2006 AEMDD grants, Deborah brings experience with the staff and settings of the Workshop and SFUSD. Deborah also brings her experience in designing and conducting evaluations to assess 21st century skills. She has designed evaluation tools including student and teacher surveys, focus groups with teachers and administrators and classroom observations that gather meaningful information related to the growth of 21st century skills and how technology integration is impacting that growth. She has a B.A. from the University of Minnesota.

Richard Siegesmund, Subject Matter Expert: Dr. Siegesmund Associate Professor and Co-Chair, Art Education at the University of Georgia's Lamar Dodd School of Art. He also serves as President of Integrative Teaching ThinkTank (ITT), a national organization of artist educators that focuses on adapting secondary and higher education art and design instruction to 21st century learning skills. He is the co-editor of Arts-Based Research in Education: Foundations for
Performing Arts Workshop, Inc.
2010 Arts in Education Model Development and Dissemination

*Practice* (Routledge) and regularly presents research concerning the arts and learning at conferences held by the American Educational Research Association, the International Congress of Qualitative Inquiry, and the National Art Education Association. He has a Ph.D. in Art Education from Stanford University.

**MANAGEMENT PLAN**

*a. Achieving the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.*

Under the leadership of Executive Director Tom DeCaigny, the Workshop has developed highly refined internal processes to coordinate organizational, programmatic and staff development goals and objectives. Every summer, staff analyze evaluation data from the prior year against the Workshop’s Strategic Plan and set priorities for program improvement. Staff then design annual work plans and set individual professional development goals that support program improvement. The Workshop conducts extensive internal and external evaluation to continuously monitor and improve program and organizational performance. We collect youth data through a worksheet that all site partners complete and manage it in our database. We monitor organizational performance goals through regular staff meetings and bi-monthly meetings of our 13-member Board of Directors.

The core team for the PACT 21 project will consist of:

1. **Project Director, Jessica Mele**
2. **Program Manager, Karena Salmond**
3. **External Evaluator, Leah Goldstein-Moses (Principal, The Improve Group)**
4. **Artistic Director, Gary Draper**
5. **Margaret Brodkin, Director, New Day for Learning Initiative, SFUSD**

7. Richard Siegesmund, U of GA, Associate Professor of Art, Subject Matter Expert

During the first two months of project planning, the team will meet on a weekly basis to discuss Year 1 planning objectives and outcomes and to fully develop the timeline for the three-year project implementation, evaluation and findings dissemination phase. The Project Director will chair the team and be responsible for the scheduling and facilitation of meetings as well as the overall management of PACT 21, including oversight of the project budget and reporting. The Program Manager will manage all individual school partnerships and will assist the Evaluator with data collection, teacher and artist correspondence, and will coordinate the scheduling of classes and professional development workshops.

Most members of this team have successfully planned and managed two previous U.S. Dept. of Education AEMDD grants (in 2003-2006 and 2006-2010); AIS Program Manager Karena Salmond joined the Workshop in 2007 and managed the 2006 AEMDD ARISE intervention targeting Special Education students; she has established systems for working with the SFUSD administration and individual schools, and has processed lessons learned from that project. The team represents a diverse set of skills from various disciplines. In addition, the team has established clear communication channels and a culture of respect by working together during the past three years, building their creativity and solution-seeking capacity. The table below is the preliminary timeline that roughly describes the PACT 21 project team’s collaborative planning and implementation activities. This timeline will serve as the basis for a detailed management and implementation plan that will be developed during the planning phase and based on a final “lessons learned” assessment from the 2006 ARISE project. Based on award announcements occurring in July 2010, and allowing for a contract negotiation phase, the
Performing Arts Workshop, Inc.
2010 Arts in Education Model Development and Dissemination

timeline assumes a late August project start date.  *(Note that positions 1-5 above comprise the
“Core Team” referenced in the timeline).*

**Project Year 1/Planning Year Timeline**

<table>
<thead>
<tr>
<th>Activities and Milestones</th>
<th>Responsible Position</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formalize agreements with SFUSD administrators and staff as needed to finalize plans to assign students, teachers, classrooms, and schools to the treatment and control groups.</td>
<td>Project Director and Evaluator</td>
<td>Month 1</td>
</tr>
<tr>
<td>Workshop with teachers of treatment and comparison classrooms to determine the best assessment methods.</td>
<td>Core Team</td>
<td>Month 1</td>
</tr>
<tr>
<td>Meeting of teaching artists to gather feedback on project design and potential assessment methods.</td>
<td>Core Team</td>
<td>Month 2</td>
</tr>
<tr>
<td>Design of action-research plan by teachers and artists</td>
<td>Evaluator, staff</td>
<td>Month 3-5</td>
</tr>
<tr>
<td>Convene to draft elements of Performance-based assessment Establishment for PLC convenings</td>
<td>Core Team</td>
<td>Month 4</td>
</tr>
<tr>
<td>Meetings with principals/administrators to better understand school’s goals for 21st century skill building based on the school’s Balanced Scorecard (BSC)</td>
<td>Core Team</td>
<td>Month 4</td>
</tr>
<tr>
<td>Design of data collection methodology</td>
<td>Evaluator</td>
<td>Months 5-8</td>
</tr>
<tr>
<td>IRB approval</td>
<td>Evaluator</td>
<td>Month 8</td>
</tr>
<tr>
<td>Complete SFUSD evaluation application</td>
<td>Evaluator</td>
<td>Month 8</td>
</tr>
<tr>
<td>Measurement instruments finalized for project</td>
<td>Evaluator</td>
<td>Month 9</td>
</tr>
<tr>
<td>Finalize Sustainability Plan</td>
<td>Project Director</td>
<td>Month 10</td>
</tr>
</tbody>
</table>
Randomized selection of students for first round evaluation | SFUSD & Evaluator | Month 10
---|---|---
Final Report - End Year One |  | Month 12
Baseline achievement assessment at the beginning of Implementation Year 1, for comparison at end of year. | Director, Evaluator | Month 12

\textit{b. Time commitments of the project director and principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project.}

The Project Director has overseen the implementation of the Workshop’s 2003 and 2006 AEMDD projects and has determined the level of commitments as defined in the budget to be appropriate and necessary for achieving PACT 21 objectives. With the organizational restructuring that the Workshop has undergone over the past three years, including the addition of a full-time Program Manager, Karena Salmond in August 2007 and the promotion of former Program Director, Jessica Mele to Deputy Director, the Workshop has an experienced staff at full capacity to effectively implement a project of this size and complexity.

\textit{c. Procedures for ensuring feedback and continuous improvement in the operation of the proposed project.}

PACT 21 will employ a number of activities to ensure feedback and continuous improvement that will contribute to the project’s success. One activity will be conducting key informant interviews. These are annual, semi-structured interviews lasting approximately 30 to 60 minutes to be conducted with leading stakeholders in the SFUSD community, such as teachers, department heads, and commissioners. The interviews will help to identify critical events, accomplishments, lessons, barriers, and recommendations related to the continued progress of
the project. These interviews will also provide information critical to building the sustainability of the project. PACT 21 will also include age-appropriate assessment activities, such as an illustrative rubric piloted in the ARISE project, in which students draw an image that depicts their experience with a Performing Arts Workshop class. Finally, the Workshop’s Executive Director, Tom DeCaigny will meet with the Project Director every other week to review project benchmarks and stakeholder feedback as well as to develop project improvement goals.

PROJECT EVALUATION

a. Methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible.

The Performing Arts Workshop’s PACT 21 project will use a mixed-method, quasi-experimental design that includes benchmarks to monitor progress toward project objectives and will measure the program’s impact on the teaching & learning of 21st century skills.

Proposed outcomes:

The following table presents proposed outcomes, the level of the outcome, indicators of success for each outcome, and measures used to determine success. Each outcome will be reviewed with a team of district and program stakeholders in the initial planning year to establish appropriate targets.
<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Level¹</th>
<th>Indicator of success</th>
<th>Measures²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrated knowledge of new terms &amp; concepts</td>
<td>St</td>
<td>Student knowledge of specific terms improves pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Improved focus &amp; concentration</td>
<td>St</td>
<td>Student focus &amp; concentration improves pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Improved reading test scores/ early indicators of reading</td>
<td>St</td>
<td>The proportion of students achieving proficiency increases from pre- to post intervention.</td>
<td>1,2,5</td>
</tr>
<tr>
<td>Relevant assessments of research &amp; application skills</td>
<td>Sy</td>
<td>Assessments are developed, tested &amp; validated.</td>
<td>6</td>
</tr>
<tr>
<td>Increased vocabulary</td>
<td>St</td>
<td>Student vocabulary increases pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Increased use of new vocabulary to conceptualize &amp; describe their work</td>
<td>St</td>
<td>Student use of vocabulary deepens pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Developed early math skills</td>
<td>St</td>
<td>Proportion of students achieving proficiency increases from pre- to post intervention.</td>
<td>1,2,4,5</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Level</td>
<td>Indicator of success</td>
<td>Measures</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>-----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Increased use of artistic terms &amp; concepts in curriculum, lesson plans &amp; class activities</td>
<td>Sc</td>
<td>Teacher use of vocabulary &amp; concepts deepens pre- to post-intervention.</td>
<td>2,3,4</td>
</tr>
<tr>
<td>Relevant assessments of student use of content, project activities</td>
<td>Sy</td>
<td>Assessments are developed, tested &amp; validated.</td>
<td>6</td>
</tr>
<tr>
<td>Strengthened, supportive relationships</td>
<td>Sc</td>
<td>Classroom climate improves to promote collaboration &amp; support.</td>
<td>3,4,6</td>
</tr>
<tr>
<td>Relevant assessments of student persistence &amp; creativity</td>
<td>Sy</td>
<td>Assessments are developed, tested &amp; validated.</td>
<td>6</td>
</tr>
<tr>
<td>Increased use of new artistic terms in critiquing others’ creative work</td>
<td>St</td>
<td>Student application of new vocabulary in critique deepens pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Developed leadership skills</td>
<td>St</td>
<td>Student leadership increases pre- to post-intervention.</td>
<td>1,2,4</td>
</tr>
<tr>
<td>Improved behavior &amp; building pro-social skills</td>
<td>St</td>
<td>Student behavior improves pre- to post-intervention.</td>
<td>1,2,3,4</td>
</tr>
<tr>
<td>Relevant assessments of ability to evaluate different possibilities &amp; reason through problems</td>
<td>Sy</td>
<td>Assessments are developed, tested &amp; validated.</td>
<td>6</td>
</tr>
<tr>
<td>Relevant assessments of pro-social behavior</td>
<td>Sy</td>
<td>Assessments are developed, tested &amp; validated.</td>
<td>6</td>
</tr>
</tbody>
</table>

1 St=Student, Sc=School, Sy=System; 2 Refer to list of primary sources below for number codes
The evaluation design emphasizes use of methods that are thorough, feasible and appropriate to the program. The evaluation will be strengthened by a mixed-method approach blending the strengths of qualitative and quantitative data and offering the opportunity to validate findings across data sources. Qualitative data will help us develop a complete, detailed description of student achievement, 21st century skills, and learning in the arts. The qualitative data will help us refine our theories and provide examples of our findings. The quantitative data will help us classify what happened, record outcomes, and explain what we learn. Results will allow us to determine what aspects of the program have the greatest impact. The evaluation will use five primary sources of data:

1. **Pre-post assessments.** These pre- and post-assessments will gather information on knowledge of artistic concepts, vocabulary, leadership skills, pro-social skills, research skills, 21st century learning skills, and reading and math proficiency. The assessments will be administered in participating classrooms prior to and following the intervention. Demographic data and information about exposure to other interventions will also be gathered on the assessments to help us evaluate the effect of various factors on student outcomes. The pre- and post-assessments will include both quantitative and qualitative items, potentially including an illustrated answer analyzed using a rubric similar to one already used in Performing Arts Workshop’s AEMDD-funded ARISE program.

2. **Teacher reports.** Teachers will be asked to provide reports about their own teaching behavior, the classroom environment, and to record outcomes of individual students related to artistic concepts, 21st century learning skills, vocabulary, leadership skills, pro-social skills, research skills, and reading and math proficiency.
3. **Focus groups.** Teachers, artists and potentially parents can contribute to the evaluation by sharing their experiences, observations and ideas in focus groups. The focus groups will explore the impact of PACT 21 on student, school and system outcomes.

4. **Observations.** Classroom observations will help us to understand the strengths and challenges of the artistic residency, how students are responding to the residency, and note when students are demonstrating specific outcomes.

5. **Student records.** Student attendance, discipline and academic/standardized test records will help us to determine the project’s impact on behavior, engagement and proficiency.

6. **Activity reports.** The program staff and evaluator will track activities and results, such as field-testing assessments and dissemination reports.

The evaluation design will collect data that demonstrates PACT 21’s success in meeting the following performance measures:

1. The percentage of participating students who demonstrate proficiency in mathematics compared with those in a norm-referenced comparison group. Early indicators of mathematics proficiency will also be measured through assessments, observations and teacher reports.

2. The percentage of participating students who demonstrate proficiency in reading compared with those in a norm-referenced comparison group. Early indicators of reading proficiency will also be measured through assessments, observations and teacher reports.

**Analysis methods.** We will use individual-level data to determine growth pre- to post-intervention on key areas of artistic concepts, vocabulary, leadership skills, pro-social skills, research skills, 21st century learning skills, and reading and math proficiency. We will use
Performing Arts Workshop, Inc.  
2010 Arts in Education Model Development and Dissemination

qualitative data and data from previous AEMDD grants to determine how much individual-level change can be attributed to the project as opposed to natural growth.

To determine the project’s success in meeting the performance measures, we propose an interrupted time series analysis design. Ideally, to establish causation, we would use an experimental design that randomly assigns participants to a treatment (the intervention) or control which allows us to compare the outcomes in the two groups. However, in cases where random assignment is not practical or ethical, the proposed interrupted time series analysis design, which is a quasi-experimental design, substitutes statistical "controls" for the absence of physical control of the experimental situation. In this case, the SFUSD student assignment process is complicated by a long-standing consent decree, making random assignment impossible. In addition, the type of data available from standardized tests is particularly well-suited to an interrupted time series design. The design will allow outcomes to be measured over time before and after the treatment (intervention). It is diagrammed as follows:

This type of design is appropriate for the intervention because we expect students to begin experiencing outcomes during the residency period. Each cohort of students will be taking the assessment, and we can compare their results to expected growth based on their test history. The

<table>
<thead>
<tr>
<th>T-2</th>
<th>T-1</th>
<th>X</th>
<th>T+0</th>
<th>T+1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized test score—2 yrs before residency yr</td>
<td>Standardized test score—1 yr before residency yr</td>
<td><strong>Residency year</strong></td>
<td>Standardized test score—spring of residency yr</td>
<td>Standardized test score—1 yr after residency yr</td>
</tr>
</tbody>
</table>
other sources of data for this evaluation can provide information on whether other factors are affecting the results. This is a particularly strong design when using standardized test scores from norm-referenced tests. Because standardized tests include an analysis of expected growth for each participating student, two primary questions will be examined in the interrupted time series design:

1. Did students show GREATER gains in test scores in the years of and following the intervention than in prior years? This would be analyzed by looking at (T-1)-(T-2) and comparing that difference to (T+1)-(T+0) (where T=test score). This is analysis would compare means and use t-tests to determine significance.

2. Did student growth on test scores EXCEED their predicted growth based on norm-referenced results? We will use state- or district-level analysis with predictive models to determine what T+0 and T+1 test scores would be based on T-2 and T-1 scores, and then determining the difference between expected and actual results.

The interrupted time series design is recommended as a way to address weaknesses in earlier AEMDD evaluations that used a comparison-group design. We found that, because the district’s student assignment process was dictated by a long-standing consent decree, there were dissimilarities between the comparison and treatment group, making it difficult to isolate program effects. In addition, we had a higher rate of students dropping out of the study or refusing to provide consent in the comparison group than in the treatment group, suggesting that there may be related response-bias errors. Finally, the interrupted time series will allow us to compare student test results against their own, earlier patterns of academic growth and against the patterns of academic growth for the full school district, allowing us to understand how the treatment group differs from the full student population.
Limitations of the design include the need to determine (1) if changes in test scores were due to normal maturation and (2) whether there were any major changes that the population experienced in addition to the intervention. Because we will use standardized tests as our data source, we can determine “typical” maturation rates from the millions of other student test results, and compare the students in the intervention to those rates. In addition, all of our other supporting data will help us understand the experiences and growth of the population.

b. Methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.

Reporting and dissemination plan. The evaluators will be a part of the core project management team and process; on a monthly basis they will collect data and produce status reports. They will work closely with Workshop staff as well as SFUSD staff to troubleshoot and provide technical assistance to ensure that the project is being implemented with fidelity to the design.

The evaluator will prepare annual evaluation reports for the program and to be included in required federal reports. In addition, both the program model and the process for evaluation can provide valuable insights to the fields of arts, education and assessment. We will present findings at conferences and prepare materials for print and web publication in the implementation years of the project.

Respect for Human Subjects. The evaluation will be guided by a respect for human subjects and will obtain IRB approval for all research plans prior to collection of any data. All evaluators working on the project will complete training in human subjects protection prior to implementing the evaluation. In addition, the Guiding Principles for Evaluators will be used as an ethical
foundation for the work. These Principles require systematic inquiry, competence, integrity and honesty, respect for people, and responsibility for the general public welfare.²

Qualifications of the evaluator. The evaluation will be conducted by the Improve Group, who is familiar with our model and has worked with the Workshop on previous evaluations. The evaluation will be directed by Leah Goldstein Moses, with Deborah Mattila providing expertise in 21st Century Learning.

Leah Goldstein Moses has been conducting evaluations for a decade with a focus on arts education. Leah has worked on over 100 evaluations, strategic plans and original research projects. She has worked with small, community-based organizations, national programs, and statewide initiatives. She most enjoys helping organizations internalize strategic and data-driven processes. Over the years, Leah has specialized in finding creative ways to answer research questions. She has integrated the arts into her work and finds inspiration in the arts for her other projects. Her work has been featured at national research conferences and at the United Nations Educational, Scientific and Cultural Organization’s first World Conference on Arts Education.