

1. NEED FOR PROJECT: The fourth largest school district in the nation, Miami-Dade County Public Schools (M-DCPS, or the District) serves approximately 340,000 students annually in a geographic region encompassing 2,000 square miles. Miami-Dade County, located on the southeastern tip of the Florida peninsula, is the state's largest county. It ranges from rural to suburban to urban, with great diversity in race and ethnicity, socio-economic status, educational attainment, and economic advantage. Miami is one of the five poorest cities of its size in the United States. The total population for the county is 2,478,745 [62% Hispanic; 18% White; 19% Black; and 1% Other (U.S. Census Bureau, 2008)], making it the eighth-most populous county in the U. S. The steady flow of immigration, while contributing to the region's rich diversity, also contributes to vast discrepancies in the population's level of academic readiness and overall academic achievement.

School District Population and Demographics. As the largest school district in Florida, M-DCPS's student body reflects the diversity of South Florida: 64% of the students are Hispanic, 25% Black, 9% White, and 2% Other. The challenge of preparing Miami-Dade County's multicultural student population for academic success is severely exacerbated by high incidences of poverty and limited English proficiency. In 2008, Miami-Dade County's poverty rate for families with school-age children was 19%, the highest in Florida and higher than the national rate of 16%. More than two-thirds (70%) of students are eligible for the District's free and reduced-price lunch program. The District's student population speaks 56 different languages and represents 160 countries. More than half do not speak English at home and 17% are enrolled in English for Speakers of Other Languages classes.

a. The *HeARTS & Minds* project will provide services or otherwise address the needs of students at risk of educational failure.

Robert Russa Moton (R. R. Moton) Elementary School. M-DCPS proposes to utilize *Arts in Education Model Development & Dissemination* (AEMDD) funding to fully implement a standards-based, arts-integrated curriculum at R. R. Moton Elementary, a Pre-K through 5th grade school located in the low socio-economic, urban community of West Perrine. The school was completely destroyed in 1992 by Hurricane Andrew, was re-built and re-opened in 1997. Due to high levels of student poverty, R. R. Moton is designated as a Title I school. Currently, 94% of the 444 students (86% Black, 12% Hispanic, 1% Other, 1% White,) in grades Pre-K through 5 participate in free or reduced-price lunch, a percentage that is greater than the District's average of 70%.

Academic Performance. The *Florida Comprehensive Assessment Test* (FCAT) is part of the state's standardized achievement test, institutionalized as a result of the *No Child Left Behind Act* (NCLB) of 2001. The primary purpose of the FCAT is to assess student achievement of the high-order cognitive skills represented in the Sunshine State Standards (SSS) in Reading, Mathematics, Writing, and Science. R. R. Moton's 2009 FCAT results are as follows: 63% of students met high standards in Reading; 59% of students met high standards in Mathematics; 89% of students met high standards in Writing; and 21% of students met high standards in Science.

The Florida Department of Education (FLDOE) uses a combination of results from the FCAT Writing and FCAT-SSS components to assess the extent to which students in Florida's schools are meeting the educational standards, to determine each school's Annual Yearly Progress (AYP), and to assign a performance grade to each school. Based on results of these exams, R. R. Moton earned a School Performance Grade of "C." The following factors are taken into consideration in determining school grades: the percentage of students meeting high

standards in Reading, Mathematics, Writing, and Science; the percentage of students making learning gains (or maintaining a level of 3, 4, or 5) in Reading, Mathematics, and Science; and the percentage of a school's lowest readers making gains over the previous year. A minimum of 90% of the schools' students must be tested. Additionally, each school in Florida is reviewed for AYP in accord with NCLB. As a school that receives Title I funding, R. R. Moton Elementary must attain AYP, but has not done so for the last three years.

b. Specific gaps or weaknesses in services, infrastructure, or opportunities have been identified and will be addressed by the *HeARTS & MINDS* project, including the nature and magnitude of those gaps or weaknesses.

Currently, the school has a small, audition-based Visual and Performing Arts magnet program. Students in this program receive daily studio-based instruction in their particular art form: dance, music, theatre, or visual arts. In an effort to increase student achievement and enhance access to the arts for all students who attend the school, R. R. Moton proposes to convert this small talent-based, studio arts program to a successful interest-based, arts-integrated program for every student. In addition, students from outside of the school's attendance boundary who have an interest in the arts-integrated approach may attend the school by virtue of the fact that the school will continue to be a magnet school for arts-integration. This prospect has the support of the neighboring area as well as local visual, performing, and literary arts communities. As currently structured, the non-magnet students only receive one hour per week of instruction in music and art as part of the regular District allocation for grades 2-5. These students do not receive instruction in dance or theatre. By transitioning R. R. Moton to a school with an arts-integrated approach for every child, the *HeARTS & Minds* project addresses this gap in services so that every child receives a instructional delivery of standards-based core

curriculum infused with all of the arts disciplines.

2. SIGNIFICANCE: The *HeARTS & Minds* project has been carefully planned and resources have been allocated to support successful implementation of the AEMDD grant proposal. M-DCPS is dedicated to making this project a success and has committed, to date, more than a dollar-to-dollar match contribution through reallocated arts specialist personnel, state-of-the-art visual and performing arts facilities, and District support services. The neighboring community is enthusiastically supportive of the project and community partners, such as New Theatre, Thomas Armour Youth Ballet/Miami Conservatory, Frost Art Museum, New World School of the Arts College Music Division, Miami-Dade Public Library System, and Florida Center for the Literary Arts, are excited and anxious to begin. The vast majority of anticipated AEMDD funding is earmarked for professional development, student learning experiences, as well as collecting and analyzing the data so as to document the results, learn from these efforts, and share the project's findings and best practices.

The focus on converting R. R. Moton to an arts-integrated approach is based on a firm philosophical belief by all involved that this approach will strongly impact student engagement and higher achievement across all content areas. There is an added emphasis on a literary connection as described in greater detail in the *Quality of the Project Design*. Every aspect of the project design is grounded on solid research. Care and effort have been taken to ensure well-rounded implementation resulting in improved teaching practice, increased student academic achievement, and improved student skills in creating, performing, and responding to the arts.

The District is dedicated also to the *HeARTS & Minds* project as a school reform effort that will transform the school climate. Lessons learned and best practices from this project will be studied and examined for implementing the same arts-integrated approach at additional school

sites within the District. Currently, M-DCPS operates 247 elementary schools and K-8 Centers, creating an ample target audience for dissemination and replication.

Dissemination. Through this project, the faculty at R. R. Moton will be planning, developing, and documenting standards-based, arts-integrated unit plans. These unit plans will be cataloged for their use in subsequent years and by teachers in other locations through an online website that will include such documentation as research findings, video clips, teacher and student reflections, and photos of students participating in arts-integrated activities. Additionally, a *HeARTS & Minds* DVD will be created in order to capture a snapshot of the project's arts-integrated classroom in action. This DVD will be included on the project website and also packaged and disseminated to the wider community. District staff with this expertise will be utilized to build and maintain the site as part of the District's in-kind support. Additionally, *HeARTS & Minds* project personnel will work closely with local arts organizations to foster and nurture relationships that will extend beyond R. R. Moton Elementary School. It is the intention to build capacity within these art organizations for the enrichment of this work as well as for future collaborations. Additionally, external evaluators for the project will share the results of the research study with teachers, administrators, and members of the District through the distribution of project reports and presentations at meetings. The study results also will be shared with a wider professional and policy-making audience through presentations at national and regional conferences and the publication of articles in refereed professional journals.

3. QUALITY OF PROJECT DESIGN: a. The *HeARTS & Minds* project reflects up-to-date knowledge from research and effective practices.

The *HeARTS & Minds* project will strive to create, document, evaluate, and disseminate an effective and replicable standards-based approach through a whole school reform effort that

will enhance instructional practice and improve student achievement through an arts-integration model. The District proposes to strengthen the academic achievement of students by integrating a standards-based arts education program across the curriculum at R. R. Moton Elementary. Proponents of this innovation at the elementary school level argue that integrated arts education would be especially effective with historically underperforming students who traditionally are marginalized in the public schools because of their frustration in mastering the subject matter. The assumption of these proponents is that instruction across subject areas using the arts would increase the involvement of low-income and minority students in the learning process because they develop comfort and competence in participating in art activities (Baum & Owen, 1997; Catterall & Waldorf, 2000). It has been argued that instruction in the arts enhances the teaching of basic skills in the elementary school years by enhancing cognitive abilities and motivation (Burger & Winner, 2000). Proponents assert that underperforming students would be drawn to arts activities with enthusiasm since they would be less anxious about how their academic achievement compares to that of other students. Hence, the hypothesis posed among a number of art educators is that arts-integration has the potential of improving the academic accomplishments of underperforming student populations (Burger & Winner, 2000; Moga, Burger, Hetland, & Winner, 2000; Podlozny, 2000). An arts-integration approach has been selected for R. R. Moton based on a belief that this method will positively impact student achievement, address the needs of the whole child, serve and embrace the expectations of the community, and is one that will be sustainable for the long-term at this school site.

Arts-Integration Models. The District and school investigated many successful arts-integration models and have identified best practices from four of them to help frame the *HeARTS & Minds* project: (1) The John F. Kennedy Center for the Performing Arts, *Changing*

Education Through the Arts Program; (2) Chicago Arts Partnerships in Education; (3) Smithsonian Early Enrichment Center; and (4) Ashley River Elementary School. **The John F. Kennedy Center for the Performing Arts, *Changing Education Through the Arts Program (CETA)*** is a standards-based, arts-integration program available to Washington, DC metropolitan area schools. Teachers from Partner Schools learn about the arts from the perspective of creators, performing artists, directors, designers, and critics. Through performances, discussions, interviews, backstage tours, lecture/demonstration, and master classes, teachers gain a deeper knowledge and understanding of the performing arts. Additionally, teachers learn how to integrate the arts with other curricula. Comparable to the staff at R. R. Moton, CETA Partner Schools have a strong interest in extending and supplementing their arts education programs with arts-integration. CETA utilizes the arts as a means to connect all areas of the curriculum while delivering a learning experience that is coherent and makes more sense to students.

The **Chicago Arts Partnerships in Education (CAPE)** program's primary strategy for developing new understandings of school improvement through the arts is through long-term partnerships between teachers and artists/arts organizations. The program was created to assist arts organizations in co-planning rigorous, innovative, sustainable curriculum with schools. The success of CAPE programs was the focus of a six-year study by Catterall and Waldorf, who examined the impact of CAPE on public school classrooms, on teachers and artists, and on students. The authors utilized large-scale surveys of students and teachers, along with standardized test data. On teacher survey scales about school climate, quality of relationships with parents, professional development, instructional practices, and relationships with the community, CAPE schools outscored non-CAPE schools in every case (Catterall, J. S., & Waldorf, L., 2000). Further evidence from Chicago indicates that 23 arts-integrated schools

showed test scores rising up to 2 times faster than in demographically comparable schools (Deasy, 2002). CAPE schools have implemented a variety of arts-integration models utilizing project-based approaches which have aspects that are applicable to meeting the needs of R.R. Moton.

The **Smithsonian Early Enrichment Center (SEEC)** offers innovative training programs for classroom educators and museum professionals interested in using objects and works of art to teach. As the Smithsonian Institution's model in museum-based education for young children, SEEC is recognized for its expertise in early childhood education, its knowledge of arts-integration and museum methodology, as well as for its role as a museum school. SEEC has partnered with programs that have diverse interests and audiences, including K-12 schools. A notable partnership was established with the Warren County School District in 2001 with *Art Smart*, an AEMDD grant project where staff from the SEEC brought a constructivist perspective to the classrooms through professional development with elementary teachers across the entire school district. The training demonstrated strategies for exploring visual arts, connecting children's literature, objects, and fine art. Educators learned to use art and objects to inspire poetry, teach math concepts, and bring authenticity to the exploration of history and culture. Learning was extended through student interaction with cultural artifacts, natural specimens, and art, demonstrating the power of objects in teaching.

Ashley River Creative Arts Elementary School in Charleston, South Carolina, is a nationally recognized school for arts-integration that was created in 1984. Before adopting an arts-integrated approach, the school, like R. R. Moton, had low student achievement. Today, Ashley River's students consistently score above state and district averages on South Carolina's Palmetto Achievement Challenge Test. More than 90% of students in grades 1-3 have met basic

skills assessment standards in reading and math, about 10% higher than students enrolled in other Charleston County schools and across the state. The integration of the arts throughout the curriculum enhances and improves the quality and quantity of the aesthetic education, and expands the use of the arts for cognitive, psychomotor, and affective learning experiences. Visual art, theatre, and music specialists at the school work closely with classroom teachers to develop standards-based, arts-integrated lessons. A part-time dance consultant is hired to complete the arts education component of the program.

b. The *HeARTS & Minds* project is part of a comprehensive effort to improve teaching and learning and support rigorous academic standards for students.

Information collected in schools where arts-integration has taken hold suggest that standardized test scores are positively affected by the inclusion of the arts in classrooms. Schools where the arts have been a consistent presence show gains in both reading and math scores. (Catterall, 1997; Parks & Rose, 1997). “Catterall and Waldorf (1999) prepared an extensive evaluation of the CAPE schools. The researchers performed a total of 52 test score analyses of CAPE and comparison schools. CAPE schools were compared to other Chicago Public Schools in a variety of ways. In none of those 52 analyses did nonCAPE schools outperform CAPE schools (CAPE, 2001).” As a result of these and other findings, M-DCPS proposes to utilize AEMDD funding to fully implement the *HeARTS & Minds* project to all students at R. R. Moton Elementary in an effort to (1) improve student academic achievement in reading and mathematics and to (2) improve student skills in creating, performing, and responding to the arts.

Arts-integration is an approach to teaching and learning that engages students in constructing meaning about their world through visual and performing arts. This constructivist approach to learning brings knowledge to life by connecting ideas to interactive, sensory

experiences. For instance, learning about the plight of slaves during the Civil War by reading *Sweet Clara and the Freedom Quilt*, listening to *Follow the Drinking Gourd*, and discussing the *Migration Series*, paintings by artist Jacob Lawrence depicting the epic Great Migration of African Americans from the rural South to the urban North, connects the learner to the emotion of the situation and thereby creates in-depth understanding. The experience is further enriched when students create paintings that illustrate their own personal encounter with inequity. The arts offer a view that extends to multiple perspectives and engages the student actively in the learning process. It is with this understanding that the *HeARTS & Minds* project was conceived.

Project Design Plan. *HeARTS & Minds* is organized around a comprehensive effort to improve teaching and learning as well as support rigorous academic standards that will positively impact student achievement at R. R. Moton Elementary. The project contains five fundamental components: (1) standards-based, arts-integrated curricula that incorporate object-based learning strategies; (2) collaborative planning and teaching between classroom teachers, arts specialists, and visiting artists; (3) literature as springboards for arts-integrated units of study; (4) extended learning experiences to cultural institutions, performances, and literary venues; and (5) ongoing professional development in arts-integration with artists and experts in the field.

Standards-Based, Arts-Integrated Curricula. The FCAT, which measures student performance on selected benchmarks in reading, mathematics, science, and writing, are defined by the Sunshine State Standards (SSS). The Standards articulate challenging content that Florida students are expected to master in each grade level. R. R. Moton will correlate content found in the SSS to hands-on, arts-integrated learning activities throughout the curriculum. Through these interdisciplinary explorations, students will develop skills and knowledge in all subject areas that encourage them to be problem solvers who actively inquire about the world. “The capacity to cut

across disciplines, investigating the content of one discipline through the skills of another to develop cross-disciplinary concepts, in a living, shifting interaction of content engagement, skill application, and concept testing, is what gives integration its dynamism and vitality (CAPE, 2001).” Not all students learn in the same way, nor do they access information and ideas through the same conduits. Howard Gardner (1999) asserted that “every intelligence has the potential to be mobilized for the arts.” The processes of the standards-based, arts-integrated curriculum at R. R. Moton will help create the environment necessary for learning to occur and for the brain to be engaged in a complex way.

The *HeARTS & Minds* project will deliver a standards-based, arts-integration program that incorporates object-based learning strategies. *Object-based learning* represents a framework for teaching and learning that engages students in a process of understanding the world and its complexity through the study of objects. This method of learning enables the student to look directly at an object, be it a sculpture or painting, artifact or advertisement, primary document or natural specimen, and, using a myriad of questions, discover its role and importance in our world. Objects are used to initiate discussion, as well as make connections to the learner’s own experiences. The discussion that an object provokes can lead to connections in a vast array of topics, including social, cultural, historic, scientific, artistic, and technological subjects. The activities and lessons incorporating object-based learning strategies are just as varied as the topics they can explore. Through personal contact with authentic objects, students experience learning through discovery, which makes the learning real and relevant.

Why Object-Based Learning? The *HeARTS & Minds* project design builds on the significant accomplishments of two recent magnet school research grants (2004-2007, 2007-2010) awarded to M-DCPS by the U. S. Department of Education (USDOE). The statistical

outcomes of the first grant (2004-2007) and the preliminary analysis of the data for the second grant (2007-2010) indicate the effectiveness of improving student achievement of historically underperforming students if an “object-based” learning strategy is utilized across the curriculum (Beckerman, Azcuy, & Fontana, 2009). Therefore, it is anticipated that students who are exposed to object-based learning strategies within arts-infused instruction in the core content areas will experience significant gains in reading and mathematics test scores as measured by the FCAT.

Collaborative Planning and Teaching. During common planning periods built into the schedule at the onset of the project, grade level teachers, the four arts specialists (art, music, dance, theater), visiting artists, and school-site project coordinator will meet to discuss and develop standards-based, arts-integrated unit plans and projects. During this time, common goals for the project will be formed; literature will be selected; arts and core content area concepts and standards will be identified; and projects to be created will be discussed. Opportunities to extend learning through object-based learning strategies and visits to cultural or literary venues will be explored. Additionally, lesson studies will be conducted in Professional Learning Communities to continually assess and revise arts-integrated activities.

Literature. As a springboard to arts-integrated teaching and learning, works of literature will be identified for each grade level by the classroom teachers, arts specialists, and reading coach and selected for their potential to connect with the core academic subject areas and the arts. These works will structure the standards-based, arts-integrated activities at the school. Unit webs will be developed, collaboratively connecting concepts from the book to grade-level core content and arts standards, as exemplified in the Project Snapshot later in this section. The Miami-Dade Public Library System and the Florida Center for the Literary Arts at Miami Dade College eagerly anticipate a multitude of opportunities for collaborating with staff at the school.

Extended Learning Experiences. Arts-integrated learning will be extended beyond the classroom walls and into museums, performances, and literary venues through learning expeditions. Unlike traditional field trips, these experiences are integrated into the arts-integrated unit whenever applicable. The school and District already have secured partnerships within the community, such as New Theatre; The Frost Art Museum; Thomas Armour Youth Ballet; Miami-Dade Public Library System; Florida Center for the Literary Arts; and New World School of the Arts College Music Division, whose letters of support are included in this proposal.

Professional Development (PD). In order to prepare the faculty and staff for schoolwide implementation of the *HeARTS & Minds* project, SEEC will provide a wide array of PD that will focus on arts-integration, object-based learning, and project-based approach. These three methodologies will be interwoven into the tapestry of the curriculum and will provide teachers with a framework for developing interactive standard-based, arts-integrated lessons for students. Utilizing the expertise of specialists in the field, such as Dr. Sharon Shaffer, Executive Director, SEEC; Dr. Rosemarie Omniewski, Professor, Edinboro University of Pennsylvania; Marcia Daft, Arts Consultant, CETA; and Jane Phelan, Creative Arts Consultant, The John F. Kennedy Center, all teachers will participate in a comprehensive training schedule where they will: study educational concepts that relate to constructivist theory and practice; explore arts integration as an approach to teaching through visual arts, music, creative movement, dance, and theatre; build vocabulary in visual arts, music, dance, and theatre; develop practical skills in art making, creative movement, and performance; explore artists and develop familiarity with diverse works of art; study strategies for interpreting art and objects; apply visual and performing arts strategies to curriculum, creating lessons that link the arts to standards; develop an understanding of object-based learning and strategies for creating engaging experiences for students through the study of

cultural artifacts, natural specimens, and works of art; and discuss the goals and process of the project approach to learning and how the arts and object-based learning are integral elements.

The delivery of PD will include the following guiding principles: (1) where possible, PD will be delivered in partnership with teaching artists/arts providers who have expertise and experience in working with National and State standards; (2) connections to cross-curricular standards and frameworks as well as to other areas of the curriculum will be made explicit from the start and built into long- and short-term lesson/project plans; and (3) Professional Learning Communities (PLC) will be established so that teachers will have follow-up opportunities to share outcomes from their work with pupils and offer feedback on implementation. PLCs will be structured so that teachers can observe each other, plan together, and encourage each other in meaningful ways while reflecting on continuously improving instructional practices. Beginning in the planning year and continuing throughout the grant period, PD will be ongoing and reinforced on a continuing basis with the intent to build a solid foundation in which to implement the arts-infused work while building capacity for long-term growth and development.

Project Snapshot. Imagine walking into a third grade classroom at R. R. Moton Elementary where students are continuing to explore Nature’s Umbrella, a standards-based, arts-integrated unit of study inspired by the book, *The Umbrella*, by Jan Brett. *The Umbrella*, an engaging story that offers a rich learning experience, takes place in a lush tropical setting inspired by the Monteverde Cloud Forest in Costa Rica. Giant paper leaves hang from the ceiling of the classroom creating an umbrella-like Amazon environment. Papier-mâché animals, colorful clay insects and frogs, and numerous graphs, reports, and facts about the rainforest are on display. A collection of objects—assorted leaves and feathers, a piece of snake skin, an egg, and photographs of rainforest inhabitants—are grouped together in the center of the room. Under the

guidance of their art teacher, Mr. Smith, and their classroom teacher, Ms. Simone, the students are working collaboratively to create a paper mural, inspired by the artist Henri Rousseau, for display in the hall just outside their classroom. They have identified the similarities and differences between the illustrations in the book to various Rousseau paintings and learned about the three main levels of the rainforest—canopy, understory, and forest floor. Grouped into three teams, one for each level, students work cooperatively, using a variety of two-dimensional media, to create large illustrations of different species of animals that inhabit that particular level as well as foliage found in the rainforest. Great care is taken to include texture by showing feathers or fur, for instance, and pattern through markings, such as spots or stripes. Colors are mixed to make a variety of tints, shades, and tones of green for the leaves. Students explain how each of their animals has adapted to its particular level in the rain forest. The canopy level group tells you that monkeys can use arms and legs and sometimes even tails to swing from branch to branch and that birds, such as parrots, have specialized feet with two curling front toes and two curling back toes to help them hang on to branches. Moving on, the understory group explains that snakes, such as boa constrictors, spend their days curled around branches or vines while students in the forest floor group describe how jaguars' spots help them to be better hunters by making them hard to see among the speckled shadows of the rainforest floor. As they complete their drawings, perspective is demonstrated through overlapping techniques as foliage and native animals are added to the Amazon mural according to their level. Once finished, the students respond to a series of questions designed for them to assess their work.

c. Proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance

The *HeARTS & Minds* project is designed to establish a schoolwide arts-integration

instructional delivery framework that is expected to yield successful results and change the work site culture at R. R. Moton, as well as establish, build, and scaffold increased community involvement and ownership.

Professional Development. Findings derived from a literature review indicate that arts-based instructional practices improve teacher quality. The literature asserts that teachers who implement arts-based instructional strategies are more enthusiastic, do their jobs better, and develop a “higher order” of thinking. Teachers who became involved in whole-school reform also became more enthusiastic about teaching (Rooney, 2004). Arts-based teaching increases a teacher’s repertoire of engaging instructional strategies. Participating in the instruction of a blended curriculum, for example, helps teachers become more child-focused, more aware of student capacity, and better able to assess child progress (Ellis, 2009). Requested AEMDD funding is heavily geared towards extensive professional development. By providing sustained PD to remold the instructional practice in every classroom, and by harnessing and nurturing broad ownership and support from within the District and school site, as well as the community, a foundation will be built to enable the work to extend beyond the period of Federal financial assistance. This sustained capacity building approach is expected to create a solid arts-integration practice that will deepen the impact of the instructional delivery and broaden student learning through an infused standards-based core and arts elementary curriculum.

Community Involvement. The neighborhood community surrounding the school has supported arts education for many years and an expectation regarding the importance of the arts and providing arts instruction is ingrained. It is anticipated that shifting from a small visual and performing arts talent magnet program to an arts-integrated approach for all students will be embraced by the community. Opportunities for cultural exchanges, extended learning

experiences, exhibits, and performances will be identified and nurtured. In addition to the aforementioned cultural and literary alliances that have already been secured, prospective partnerships will continue to be cultivated. A new regional performing arts facility, currently under construction and less than 2.5 miles away from the school, for instance, offers opportunity for unique collaborations in the near future.

Additional Support. Though the school facility was completely destroyed in 1992 by Hurricane Andrew, R.R. Moton was redesigned, reconstructed, and reopened as a state of the art facility in 1997. The Visual and Performing Arts magnet was core to this revitalization, as evidenced by new arts facilities that include a freestanding 100-seat theater, theater classroom laboratory, dance studio, two music laboratories, art gallery, and two visual arts studios—one 2D and one 3D. The availability of these facilities for use with arts-integrated activities, as well as arts instruction, will greatly enhance the scope of arts-infused projects and activities.

R. R. Moton currently receives additional financial support from the District to sustain the arts magnet academy within a school model. A large percentage of these funds are allocated for the art, music, theatre, and dance arts specialists. Under the *HeARTs & Minds* project, these visual and performing arts magnet teachers would remain, and refocus their work to an arts-integrated approach that collaborates and infuses teaching the arts standards through and with the core curriculum for all students at the school. An arts-integrated curriculum would coincide with arts instruction for all students. It is anticipated that the current level of District support will continue, and therefore enable the new culture and instructional support to sustain.

Rich professional development, a comprehensive arts facility, arts specialists, community partnerships, and continued District support funding will contribute towards sustainability of the *HeARTs & Mind* program.

4. QUALITY OF PERSONNEL: M-DCPS encourage applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability.

KEY DISTRICT PERSONNEL: The following key project personnel, listed in order of management seniority, have relevant training and experience and are highly qualified to carry out the *Hearts & Mind* project.

Ms. Enid Weisman, Assistant Superintendent, (5% FTE; District funded), District/School Operations, holds an M.S. degree in Counseling from the University of Miami and a Specialist in Education degree in Administration and Supervision from Nova University. Throughout over 40 years with the school system, Ms. Weisman has served in numerous capacities, such as classroom teacher; middle school assistant principal; principal of a Visual & Performing Arts magnet high school; and Regional office director and superintendent. Ms. Weisman is currently responsible for directing, supporting, supervising, and evaluating magnet schools programs and charter schools for the District.

Ms. Marie Mennes, Project Director (100% FTE; grant funded), School Choice & Parental Options (SCPO), currently assists with the implementation of the 2007-2010 USDOE Magnet Schools Assistance Program (MSAP) grant where she provides curricular support to three museum magnet schools and one visual and performing arts senior high academy program. In this capacity, she designs, develops, and facilitates professional development workshops for teachers and other personnel on instructional strategies and techniques to enhance student learning and to successfully implement the magnet theme curricula. During her 27-year tenure with the District, Ms. Mennes has demonstrated leadership skills in curriculum development. As an art educator, she had extensive experience in the development of the District's *Visual Arts K-*

12 Competency-Based Curriculum and correlating it to Florida's Sunshine State Standards. Additionally, she wrote the third grade student and teacher editions of *Art Connections*, published by the SRA Division of McGraw-Hill. In her capacity as art supervisor, Ms. Mennes was responsible for the implementation of the visual arts curriculum and related professional development training for art teachers throughout the District. Ms. Mennes earned a M. S. degree in Art Education from Barry University and holds a Florida Educator Professional Certificate in Art Education (K – 12) and in Educational Leadership. A 2008 recipient of the highly competitive *South Florida Cultural Consortium Fellowship for Visual and Media Artists*, Ms. Mennes also is a practicing artist whose work has been exhibited locally and nationally and is included in a number of collections.

Ms. Rosa Ansoleaga, Project Coordinator, (100% FTE; District funded), R. R. Moton Elementary, has enjoyed an 11- year career with the District. Currently the visual arts instructor and lead teacher for the school's Visual & Performing Arts magnet program, she holds a B.S. in Art Education from Florida International University (FIU) and is working concurrently towards earning an M.S. degree in Art Education from FIU and in Educational Leadership from American College of Education. In 2008, Ms. Ansoleaga attained National Board for Professional Teaching Standards certification, an achievement which qualified her to be a Teacher Leader for a grant awarded by Project RISE, a non-profit organization committed to helping disadvantaged youth improve their self-esteem and academic successes through afterschool and summer programs. In this capacity, Ms. Ansoleaga is responsible for implementing the grant objectives; monitoring the budget; developing and delivering professional development to staff; and coaching and modeling best practices.

KEY CONTRACTED PERSONNEL: Dr. Sharon Shaffer, Arts-Integration

Consultant (grant funded), is the Executive Director for the Smithsonian Early Enrichment Center (SEEC), the model lab school for the Smithsonian Institution in Washington, DC, and currently provides leadership for the lab school and the educational outreach program. She is recognized for her expertise in museum pedagogy, learning theory, early childhood education, and arts-integration. The hallmark of her work is blending theory and practice, modeling constructivist strategies and critical thinking techniques throughout training. She engages educators in reflection on educational practice and developing an understanding of the learning process. Dr. Shaffer has led educational outreach initiatives working with schools and museums nationally and internationally, engaging educators in visual arts and object-based experiences that serve as a model for teaching in classrooms and museums. Under her leadership, SEEC has partnered with programs that have diverse interests and audiences, including K-12 schools. In 2001, a partnership was established with the Warren County School District with *Art Smart*, an AEMDD grant project in which Dr. Shaffer and museum educators from SEEC brought a constructivist perspective to the classrooms through professional development with elementary teachers across the entire school district. The training demonstrated strategies for exploring visual arts, connecting children's literature, objects, and fine art. Visual art, music, performance, and creative movement were integral to all aspects of teaching. Educators learned to use art and objects to inspire poetry, teach math concepts, and bring authenticity to the exploration of history and culture. Learning was extended through student interaction with cultural artifacts, natural specimens, and art, demonstrating the power of objects in teaching. Dr. Shaffer earned a Ph.D. in Social Foundations of Education from the University of Virginia.

Note: Biographical information for Dr. Adela Beckerman and Dr. Leonard Fontana, External Evaluators, is included in the Project Evaluation section of this proposal.

5. QUALITY OF THE MANAGEMENT PLAN: a. The *HeARTS & Minds* management plan is adequate to achieve the objectives of the project on time and within budget, and includes clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

The District's Office of School Choice & Parental Options (SCPO), under the supervision of Ms. Enid Weisman, Assistant Superintendent, District/School Operations, will manage the *HeARTS and Minds* project. SCPO successfully oversees over 300 choice programs in more than 109 different school sites being implemented in six different magnet themes. Since launching the first program at Charles R. Drew Elementary in 1973, the District's magnet programs have consistently garnered national recognition. Recently, U.S. News & World Report ranked four of the District's magnet schools, the Design & Architecture Senior High (#15), Maritime & Science Technology Academy (#66), New World School of the Arts (#82), and Coral Reef Senior High (#95) as four of America's Best 100 High Schools. Ms. Marie Mennes, Project Director, will report directly to Ms. Weisman. In this capacity, she will be responsible for the day-to-day operations, monitoring the overall implementation of the proposed project, and ensuring that the project is completed on time and within budget.

At R. R. Moton Elementary, Ms. Rosa Ansoleaga has been identified as the project coordinator. Currently the visual arts instructor and lead teacher of the Visual & Performing arts magnet program at the school, Ms. Ansoleaga will work closely with the school's administrative staff to convert this small talent-based, studio arts program to a successful interest-based, arts-integrated program for every student at the school. As project coordinator, Ms. Ansoleaga will perform the following duties: assist the administration, teachers, and arts specialists with the implementation of the project; facilitate and monitor the design, development, and

implementation of the arts-integrated curriculum; cultivate community resources to support the arts-integrated program; monitor collaboration between classroom teachers, arts specialists, and visiting artists; document implementation of arts-integrated projects and curriculum; coordinate daily logistical operation of the program; coordinate extended learning experiences to local cultural institutions; conduct grade level lesson studies using Professional Learning Communities protocols; initiate and monitor the purchasing of program-related instructional materials and equipment; monitor and assess staff development training needs; and maintain an archive of arts-integrated unit plans for the database.

The *HeARTS and Minds* management plan is designed to achieve the objectives of the project on time and within budget, and includes clearly defined responsibilities, timelines, and milestones for accomplishing the project tasks as follows:

TIMELINE						
Activity	July 2010 – Sept. 2014				Person(s) Responsible	Milestone
Revise schedule common planning time for grade level teachers/ arts specialists	July 2010				School Administrative Staff; Coordinator	Schedule that reflects common planning time developed
Devise professional development (PD) training schedule	July 2010	July 2011	July 2012	July 2013	Proj. Director	PD training schedule developed
Build/ maintain database/website of AI		July 2011	July 2012	July 2013	M-DCPS Web/Graphic	Database/website includes AI unit

unit plans					Designer	plans
Identify carefully matched comparison group school for research study	July 2010				M-DCPS staff; Evaluators	Control school identified
Review implementation progress with principal/coordinator	July 2010- June 2011	Monthly			Proj. Director	Project activities completed on time
Debrief Annual Performance Report (APR)/ Addendum results with key staff		Sept. 2011	Sept. 2012	Sept. 2013	Evaluators	Key staff informed of project progress
Conduct Professional Lrng. Communities lesson studies		Sept. 2011	On-going		Coordinator	Community of collegiality developed
Cultivate community resources	Sept. 2010	Sept. 2011	Sept. 2012	Sept. 2013	Proj. Director; Coordinator	Community resources utilized
Provide arts-integration PD	Oct. 2010- May 2011	Each 9-week grading period			Proj. Director; AI Consultant	Teachers prepared with strategies for AI planning and implementation

Collect data on performance measures	Oct. 2010	On-Going			Evaluators	Performance measures data collected
Review progress on performance measures with Proj. Director and Coordinator	Nov. 2010	Quarterly			Evaluators	Proj. Director and coordinator apprised of progress toward meeting project objectives
Select literature as access points to AI units	Nov. 2010	On-going			Teachers; Arts Specialists; Coordinator	Books purchased for AI implementation
Develop AI unit webs	Nov. 2010	On-going			Teachers; Arts Specialists	AI unit webs developed
Develop rubrics for unit plan reviews and formal observations	Dec. 2010				Evaluators; Proj. Director; Coordinator	Rubrics for unit plan reviews and observations developed
Conduct mid-year portfolio reviews		Dec. 2011	Dec. 2012	Dec. 2013	Coordinator; Arts Specialists	Portfolio reviews conducted
Host Performance/ Exhibit Night		Jan. 2012	Jan. 2013	Jan. 2014	School Staff	Exhibition Nights held for school/

		May 2012	May 2013	May 2014		community
Develop rubrics for arts performances/student reflections	Feb. 2011				Evaluators; Arts Specialists; Coordinator	Rubrics for arts performances/ student reflections developed
Develop AI unit plans	Feb. 2011		On-going		Teachers; Arts Specialists; Coordinator	AI Unit Plans developed
Implement AI curriculum	Apr. 2011		On-going		Teachers; Arts Specialists	Students participate in AI projects
Document AI projects	Apr. 2011		On-going		Teachers; Arts Specialists; Coordinator	Photos, videos, reflections, unit plans, research results archived
Monitor AI implementation	Apr. 2011		On-going		Principal; Proj. Director; Coordinator	AI projects developed and displayed
Conduct school site visit	Apr. 2011		Each semester		Evaluator	Qualitative data will be collected
Pilot test/revise arts	Apr.				Arts	Effectiveness of

performances/student reflections rubrics	2011				Specialists; Coordinator	rubrics will be reviewed/revised
Review, assess, revise AI implementation	May 2011	On-going			Teachers; Arts Specialists; Coordinator	AI plans revised for future success
Review cumulative rubrics		May 2012	May 2013	May 2014	Arts Specialists	Growth in students arts skills assessed
Provide weeklong AI training	June 2011	June 2012	June 2013	June 2014	Proj. Director; AI Consultant	Teachers prepared with AI strategies
Prepare/submit Annual Performance Report (APR)	June 2011	June 2012	June 2013	June 2014	Evaluators; Proj. Director	APR submitted
Review findings of evaluation report/ research study with project director and coordinator	June 2011	June 2012	June 2013	June 2014	Evaluators	Proj. Director and Coordinator will be apprised of findings each year
Close purchase orders, justify expenditures	Aug. 2011	Aug. 2012	Aug. 2013	Aug. 2014	Principal; Proj. Director	POs closed; expenditures justified
Submit annual/final	Aug.	Aug.	Aug.	Aug.	Proj. Director	Annual/final

reports to USDOE	2011	2012	2013	2014		reports submitted
Collect and analyze FCAT data	Aug. 2011	Aug. 2012	Aug. 2013	Aug. 2014	Evaluators	FCAT data analyzed
Submit Addendum to APR	Sept. 2011	Sept. 2012	Sept. 2013	Sept. 2014	Proj. Director	APR Addendum submitted
Disseminate research study results				Sept. 2014	Evaluators; M-DCPS Senior Staff	Research results disseminated locally/ nationally

c. The extent to which the 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 implementation of the *HeARTS & Minds* project will be accomplished during the four-year grant period, guided by the management timeline delineated above. During the first year of the project, key project personnel will facilitate yearlong planning and preparation in order to build capacity to effectively carry out the comprehensive activities as delineated in the evaluation plan. Professional development will begin immediately and continue on an ongoing basis. Teachers and arts specialists will begin creating arts-integrated units and implementation of the arts-integrated curriculum will begin in April 2011 after the administration of the FCAT in March. The external evaluators, Dr. Adela Beckerman and Dr. Leonard Fontana, will identify a carefully matched comparison group school for the research study, conduct site visits to the school, collect and report on data related to the project’s performance measures. Ms. Marie Mennes, Project Director, will dedicate all of her time and effort to monitor and coordinate the day-to-day project activities and will work closely with school’s principal and with Ms. Rosa

Ansoleaga, Project Coordinator, who also will dedicate all of her time, to ensure that the project activities proceed as planned.

d. The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

To ensure continuous improvement in the operation of the *HeARTS & Minds* project at R. R. Moton Elementary, progress toward achieving the project goal and objectives will be reviewed quarterly by the external evaluators. Results and recommendations will be shared with the project director and coordinator who will make necessary adjustments to the project's action plan, work plan, and activities. The project director will continuously monitor advancement towards implementing the activities identified in the timeline above during monthly meetings with the school's administrative staff and coordinator. Each semester the external evaluators will conduct a site visit to the school during which classroom observation will be conducted. In the Spring of each school year, this site visit will also include an interview with the principal and with the project coordinator and a focus group with a cross section of classroom and support teachers designed to assess the extent to which the project is being implemented and progress is being made towards attaining performance measures, such as the sustainability of the project after the grant period has ended. The qualitative data obtained will be analyzed and shared with the project director and coordinator during the quarterly meetings. In August of each school year, the external evaluators will meet with key personnel to review overall results as reported in the project's Annual Performance Report (APR). The results then will be shared in September with the entire school staff.

6. QUALITY OF THE PROJECT EVALUATION: The proposed formative and summative evaluation plan will evaluate the effectiveness of M-DCPS in meeting the specific

goals and objectives of the proposed interventions funded by the AEMDD grant. The evaluation study will gauge the impact of the infusion of standards-based arts integration into the core elementary school curriculum in improving the academic performance of students in R. R. Moton Elementary, a school that according to the assessment tools of the FLDOE has historically lagged behind other schools.

a. The 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 following table delineates the *HeARTS & Minds* project goal, objectives, performance measures that will serve as indicators of meeting objectives, and the types of data that will be collected to evaluate the project:

GOAL: The <i>HeARTS & Minds</i> project will enhance, document, evaluate, and disseminate an effective and replicable standards-based, arts-integration program that enhances instructional practice and improves student achievement.	
Objective 1: Increase the number of arts integrated units implemented in the classroom.	
Performance Measures:	Data Source(s):
1.1. By year 4, 100% of teachers will have received training in arts integration strategies.	Sign in sheets; Teacher training logs
1.2. By year 4, 90% of teachers will have implemented at least seven standards-based arts-integrated (AI) unit plans.	AI unit plans; Interviews; Observations; Focus groups
Objective 2: Improve student academic achievement in reading and mathematics.	

<p>2.1. By year 4, the percentage of students in the treatment group demonstrating proficiency in reading, as measured by the FCAT, will increase by at least 8 points.</p>	<p>FCAT Reading results</p>
<p>2.2. By year 4, the percentage of students in the treatment group demonstrating proficiency in mathematics, as measured by the FCAT, will increase by at least 8 points.</p>	<p>FCAT Math results</p>
<p>2.3. By year 4, students in the treatment school will demonstrate significantly greater educational gains in reading, as measured by the FCAT, than students in the comparison school. (GPRA)</p>	<p>FCAT Reading results</p>
<p>2.4. By year 4, students in the treatment school will demonstrate significantly greater educational gains in mathematics, as measured by the FCAT, than students in the comparison school. (GPRA)</p>	<p>FCAT Math results</p>
<p>Objective 3: Improve student skills in creating, performing, and responding to the arts.</p>	
<p>3.1. Each year, 80% of students will demonstrate improved skills in creating and performing in the arts as evidenced by rubrics used to assess student arts products.</p>	<p>Student portfolios; Rubrics</p>
<p>3.2. Each year, 80% of students will demonstrate improved skills in responding to the arts as evidenced by rubrics used to assess student reflections/ written critiques.</p>	<p>Student reflections/written critiques; Rubrics</p>
<p>Objective 4: Document and disseminate standards-based arts-integrated resources.</p>	
<p>4.1. By year 4, a <i>HeARTS & Minds</i> project website will be created that is freely available to all users.</p>	<p>Project website</p>

<p>4.2. By year 4, a bank of at least 60 standards-based, arts-integrated unit plans will be uploaded to the project website.</p>	<p>Unit plans; Project website</p>
<p>4.3. By year 4, a DVD of quality arts integration teaching and student learning in action at the project school will be developed for presentation to the wider community.</p>	<p>DVD</p>
<p>4.4. By year 4, proposals will be submitted for two national conferences; professional journals will be identified for submission of articles with findings.</p>	<p>Research study findings</p>

A quasi-experimental non-equivalent control group design will be used in evaluating the impact of arts integration on the educational performance of elementary school students. Two elementary schools will be the focus of the research plan. R. R. Moton Elementary will be the site of the "treatment group." The students attending this elementary school will experience the integration of standards-based arts-integrated education. A matched "comparison" elementary school will be randomly selected by the external evaluators.

The evaluation will address two overarching research questions:

1. *Do teachers in the treatment group school incorporate standards-based arts education into their teaching practices?*
2. *Do students in a treatment group who experience the integration of standards-based arts education demonstrate significantly greater educational gains in reading and mathematics as measured by the Florida Comprehensive Assessment Test (FCAT) than students in a comparison group who are engaged in the standard Miami-Dade County Public Schools' curriculum?*

In conjunction with these research questions, the following research questions will be addressed:

3. *Do students with more exposure to standards-based arts education in the treatment group demonstrate greater achievement in mathematics and reading than students in the treatment group with less exposure to standards-based arts education?*
4. *Do students in the treatment group improve skills in creating, performing, and responding to the arts?*

External Evaluators. Dr. Adela Beckerman and Dr. Leonard Fontana have recent evaluation experience serving as external evaluators for the three-year (2007-2010) U.S. Department of Education (USDOE) grant received by M-DCPS to fund an innovative magnet school program involving four underperforming schools. They are also involved in a special research project focusing on one of the magnet schools in this grant. This “invitational priority” grant from the USDOE is designed to assess the impact of object-based learning at this elementary school. They also have collaborated in an evaluation of an earlier magnet school grant (2004-2007) and an “invitational priority” grant that was awarded to the District by the USDOE. The empirical results of that evaluation study were presented to the annual conference of magnet school programs in Charlotte, North Carolina in April 2009. These evaluators have extensive experience conducting varied qualitative, quantitative, and mixed method research designs. They have experience developing and analyzing surveys, collecting and assessing primary and secondary data, conducting univariate and multivariate data analysis, and developing protocols for and conducting interviews and focus groups. Both have been conducting research studies for more than 20 years and have presented their research at professional conferences and published research articles in numerous professional journals. Dr. Fontana received his Ph.D. from the State University of New York at Stony Brook and Dr. Beckerman received her Ph.D. from the State University of New York at Albany.

Evaluation Design. The research project will be conducted over a period of four school years: 2010-2011; 2011-2012; 2012-2013; and 2013-2014. The first part of the initial year, 2010-2011, will serve as a planning period during which staff development and curriculum development are initiated. The integration of standard-based arts teaching and learning activities will ensue during the later part of the first year, 2010-2011, and continue through 2013-2014.

Treatment and Control Group. Since the hypothesis is that standards-based arts education represents a strategy that is expected to significantly support and extend the reading and mathematical abilities of students in the treatment group, a comparison elementary school must be identified that is using the standard elementary curriculum in the District and whose students are demographically and academically similar to students in the treatment group. Once M-DCPS have been notified of the AEMDD grant award, a list of elementary schools in the District that match the treatment school in terms of average 2010 FCAT Reading and Mathematics test scores, School Performance Grades, and ability to make adequate yearly progress, as well as the demographic profile of students' gender, race/ethnicity, ESOL level of performance, and free and reduced lunch eligibility status will be developed by the District Office of Assessment, Research, and Data Analysis. The external evaluators will select one school from this list as the comparison group for the study. This comparison school will be the school that most closely matches the treatment school on the variables examined.

Data Collection. Research Question 1. This research question concerns the issue of *treatment fidelity* and asks whether teachers in the treatment group school integrate standards-based arts education into their teaching practices. This question will be answered using a triangulation approach, by reviewing both quantitative and qualitative sources of data.

The integration of the arts across the curriculum into teaching and learning will be

examined through several data collection methods. Teachers will begin working during the first year of the grant, in teams, on curriculum development, and will develop arts-integrated curriculum unit plans that respond to state-mandated standards for education in each area of the curriculum. These plans will be reviewed by the external evaluators to determine whether the arts are being integrated across the curriculum, including mathematics and reading instruction, and the frequency with which such unit plans are developed. Over the course of the four-year project, a databank of arts-integrated (AI) unit plans will be developed.

During the four years of the grant, the project coordinator and external evaluators will also conduct classroom visits to insure that AI unit plans are being implemented. The external evaluators will conduct classroom visits each semester. The project coordinator will conduct peer observations of at least one class at each grade level, selected randomly, during each of the four grading periods. These observations will begin during the latter part of the first year of the grant and continue through the fourth year of the grant. Rubrics will be developed during the first year of the grant by the external evaluators, in collaboration with the project director and coordinator for reviews of the AI unit plans and classroom observations. The need for construct and content validity of these rubrics will be addressed.

Interviews with the treatment group principal and coordinator, and focus groups with teachers will be conducted by the external evaluators at the end of each year of the project to obtain qualitative data about the extent to which AI is being integrated across the curriculum, challenges to the integration of the arts and how these are addressed, as well as methods by which the school is developing the capacity to continue the integration of AI teaching and learning strategies beyond the time period of the grant.

Students will be asked to prepare portfolios that demonstrate the integration of the arts

across the curriculum. A sample of randomly selected portfolios from each grade level will be collected and reviewed by the external evaluators each year. In collaboration with the project director, coordinator, and the four arts specialists, the external evaluators will develop a checklist during the first year of the grant as a guide for the portfolio review. This checklist will provide examples of portfolio contents, such as DVDs of performances, student reflections, and artwork.

The collection of these data will provide the information needed for both formative and summative evaluation of the program. The external evaluators will meet with the project director and coordinator quarterly during the school year to discuss the analysis of these data and the extent to which standard-based arts are being integrated across the curriculum.

Research Question 2. This research question addresses the two Government Performance and Results Act (GPRA) Performance Measures. This question asks whether there are changes in student performance in both reading and mathematics following the implementation of an arts-integrated curriculum. This question will be addressed by examining changes in the FCAT scores of the treatment and control group students over the period of the study. Each year of the project, changes in the FCAT scores of treatment group students will be compared to changes in comparison group students' FCAT scores.

The data collected regarding students in both the treatment group and the comparison group will include student's grade level, gender, race/ethnicity, ESOL status, and free and reduced lunch eligibility status, as well as FCAT Mathematics and Reading test scores. These data will be entered into an SPSS file and will be utilized to develop a profile of the treatment group and comparison group students, as well as to examine changes in FCAT scores for each of these subgroups of the treatment and comparison student groups.

The FCAT Reading and Mathematics tests, which are administered annually at the

elementary level to 3rd, 4th, and 5th grade students, will serve as the indicator of academic performance. These tests are state assessment tools that include criterion-referenced measures of selected Reading and Mathematics benchmarks in Florida's Sunshine State Standards. These Standards delineate the knowledge and skills that students should master at each grade level. Benchmarks are identified as measures of progress expected at each grade level.

The FCAT poses questions that challenge students' level of knowledge, skill areas, and cognitive capabilities. The test offers a range of questions at different levels of complexity. The content becomes more challenging and contains specific differences as student progress from one grade level to the next. The FCAT Reading and Mathematics tests identify four reading content areas (words/phrases, main idea/purpose, comparisons, reference/research) and five mathematics content areas (number sense, concepts, operations; measurement; geometry/spatial sense; algebraic thinking; data analysis/probability). The FCAT has been tested for validity and reliability (Florida Department of Education, 2004). Construct-related validity testing was conducted. The FCAT in Reading and Mathematics were found to have convergent validity. Cronbach's Alpha coefficients for the FCAT were a minimum of .88 in reading and mathematics. The Item Response Theory (IRT) marginal reliabilities were reported as being a minimum of .88 in reading, and .87 in mathematics. Significant concurrent validity with the Stanford 9 test was also reported.

The FCAT Mathematics and Reading 3rd grade test scores for students in the treatment and comparison groups will serve as a baseline with which to measure change in the FCAT scores taken during the 4th and 5th grade. Each year the FCAT scores of students in the 4th and 5th grades in the treatment and comparison groups will be examined. The hypotheses examined will be that the FCAT scores of treatment group students will be significantly higher than that of

comparison group students after the treatment group has been exposed to an AI curriculum, and that the increases in scores among treatment group students will be significantly greater than any changes that occur in the comparison group student scores.

Research Question 3. This research question will examine the question of whether the impact of exposure to an AI curriculum is cumulative. The concept of exposure is operationalized as the number of years students are engaged in an AI curriculum. This study, thus, asks whether there is a significant positive relationship between the number of years of exposure to AI curriculum and educational achievement, as measured by the FCAT.

There will be three cohorts of treatment group students who will be examined during the study. It is anticipated that the treatment group's exposure to AI curriculum will begin during the latter part of the first year of the grant, 2010-2011 and continue through the fourth year of grant.

Cohort 1. The FCAT scores of 4th and 5th graders enrolled in R. R. Moton Elementary in 2011-2012 and their counterpart in the comparison group will be examined. These treatment group 4th and 5th graders will be exposed to one year of AI (spring 2011-spring 2012) at the time they complete the 2012 FCAT. The 4th and 5th graders in the comparison school will be exposed to the standard district curriculum.

Cohort 2. The FCAT scores of 4th and 5th graders enrolled in R. R. Moton Elementary in 2012-2013 and their counterparts in the comparison group will be examined. These treatment group 4th and 5th graders will have been exposed to AI for two years (spring 2011-spring 2013) at the time they complete the 2013 FCAT. The 4th and 5th graders in the comparison school will be exposed to the standard district curriculum.

Cohort 3. The FCAT scores of 4th and 5th graders enrolled in R. R. Moton Elementary in 2013-2014 and their counterparts in the comparison group will be examined. These treatment

group 4th and 5th graders will have been exposed to AI for three years (spring 2011-spring 2014) at the time they complete the 2014 FCAT. The 4th and 5th graders in the comparison school will be exposed to the standard district curriculum.

Research Question 4. This research question asks whether there is improvement in the treatment group students' skills in creating, performing, and responding to the arts. The discussion earlier pertaining to Research Question 1 indicated that students will be asked to prepare portfolios with samples of their coursework as an indicator of whether AI is occurring across the curriculum. In order to address Research Question 4, students will be asked to share reflections about the contents of their portfolio twice during each school year, in the fall of the school year and near the end of the school year. Students will be asked to explore the extent of their experience creating art and share their perceptions about the artwork they have created. This inquiry by students will be guided by a template and set of questions and directions developed by the project director, arts specialists, and external evaluators. A rubric will also be developed by the arts specialists to assess progress made by students in their ability to create, perform, and respond to the arts during the school year, as demonstrated by the contents of students' portfolios.

Data Analysis. Chi-square and two-way ANOVA (General Linear Model/Univariate) analyses will be conducted to insure that the treatment and control group schools are statistically similar to each other on all matching variables. Independent samples t-test analysis will examine whether there are no significant pre-treatment differences in the FCAT Reading or Mathematics scores. The level of statistical significance employed will be .05. Levene's test for equality of variances will be used to examine significant difference between the variances. The strength (effect size) will also be examined, reviewing the observed power provided by SPSS analysis.

Cohen's convention for interpreting effect size will serve as an indicator of effect size as well.

Univariate statistical analyses will be utilized to develop a profile of the students in each of the four cohorts of treatment group and comparison group cohorts. Linear mixed models such as repeated measures ANOVA will be used to examine whether there are significantly different changes in the FCAT Mathematics and Reading scores achieved by the students in each cohort of the treatment, when compared to their counterparts in the comparison group. Linear mixed models will also be utilized to examine whether there were any significantly different changes in the academic performance of students in different subgroups (i.e., grade, gender, race/ethnicity, eligibility for free or reduced-price lunch, ESOL). Linear mixed models analysis is appropriate for analysis in studies involving students in classrooms as well as when there are repeated measures such as several FCAT scores (West, Welch, & Galecki, 2006).

In order to address the research questions pertaining to the cumulative impact of arts-integration, linear mixed models will be utilized to examine whether there are statistically significant differences in the FCAT scores of the treatment group students exposed to an arts-integrated curriculum for one year, when compared to treatment group students exposed to the treatment for more than one year.

Annual reports prepared by the external evaluators will review student performance on the FCAT. Each year, students' performance on the 3rd grade FCAT will be examined to determine if there are differences in the performance of students based on the number of years of arts-integrated instruction they have received at R. R. Moton Elementary. In addition, students' performance on the 4th and 5th grade FCAT will also be examined.

- b. The methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes.**

The evaluation design includes a *feedback loop* for periodic assessment of progress made in meeting the Performance Measures. On a quarterly basis, the external evaluators will meet with the project director and coordinator to report on the progress being made towards meeting the Performance Measures. During these meetings participants will engage in a review of the progress being made, for example, towards developing and implementing a staff development plan and AI unit plans, towards the development of tools to monitor and assess the contents of student portfolios, and towards conducting classroom observations.

Each semester the external evaluators, who reside locally, will conduct a site visit to R. R. Moton Elementary during which classroom observation will be conducted. Each spring, this site visit will also include an interview with the principal and with the project coordinator and a focus group with a cross section of classroom and support teachers designed to assess the extent to which the project is being implemented and progress is being made towards attaining performance measures such as the sustainability of the project after the grant period has ended. The qualitative data obtained will be analyzed and shared with project director and coordinator during their quarterly meetings.

At the end of each school year, a meeting will include a review of the findings of the annual report. At the beginning of the following school year, a meeting will be conducted with a larger audience of key personnel in order to share the findings of the annual report, which will include FCAT test results. During these meetings participants will review the Performance Measures that were met, and those that were not, and review the Performance Measures that must be met for the ensuing year. These meetings will also be designed to serve as a springboard for a review of the effectiveness of the strategies being used to meet each Performance Measure.