

Center for Community Arts Partnerships (CCAP) at Columbia College Chicago
Arts in Education Model Development and Dissemination Grant

Project Narrative

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Introduction: The Center for Community Arts Partnerships (CCAP) at Columbia College Chicago, a non-profit organization, will partner with an LEA, Evanston/Skokie District 65 in Illinois, to implement the *MSEED: Middle School Evanston Expansion and Dissemination* project. MSEED will expand and disseminate CCAP’s Arts Integration Mentorship Project (Project AIM), a research-based model that has been developed since 2002 to effectively integrate standards-based arts education into the core elementary and middle school curriculum, and improve the academic performance of at-risk students, especially in reading, writing and mathematics. Through teaching artist residencies, teacher-artist collaborations, and sustained, intensive professional development, Project AIM integrates high quality instruction in media arts, music, dance, theater, and visual arts with other academic content areas. All curricula address Common Core standards in math and English language arts, and Illinois state standards in the arts and in social/emotional learning (see Section 3b). This distinctive, high quality model of multi-disciplinary arts integration is documented in a 2008 CCAP publication entitled *AIMprint: New Relationships in the Arts and Learning*, co-edited by Cynthia Weiss and Amanda Leigh Lichtenstein. The model focuses on middle school because research shows that support for students in these grades is critical for dropout prevention (Kennelly and Monrad, 2007; Wells, 1989). Project AIM has been developed through two successive AEMDD grants, from 2005-2008 and 2008-2012, which served middle school grade students in three Chicago K-8 schools and two K-8 schools in Evanston, Illinois. In the MSEED project, CCAP proposes to disseminate the Project AIM model to all middle school students in Evanston/Skokie District 65 by working with 7th and 8th grade teachers in the three other district schools that serve 6th-8th graders. Over four years, MSEED will directly serve 1,200 students and 30 teachers in three project schools, and indirectly serve approximately 650 additional students and 12-15 additional teachers.

SECTION 1: NEED FOR PROJECT

(a) The extent to which the proposed project will provide services or otherwise address the needs of students at risk of educational failure.

MSEED will address the academic needs of middle school students in Evanston/Skokie District 65, a large elementary district located north of Chicago. The three middle schools in the district are Chute, Haven, and Nichols, which serve grades 6-8. Although these schools' average Illinois Standardized Achievement Test (ISAT) scores match or exceed state averages in reading and math, several subgroups of students are performing far below the average, putting them at risk for educational failure. All three middle schools are failing to meet Adequate Yearly Progress (AYP), and have been identified for federal and/or state improvement status.

TABLE 1. DEMOGRAPHIC OVERVIEW OF THE SCHOOLS TO BE SERVED¹

School	Chute	Haven	Nichols	District Avg.
Grades served	6-8	6-8	6-8	K-8
Number of students	582	721	554	6,876
Attendance rate	95.7%	95.7%	95.1%	95.9%
Number of suspensions ²	35	60	50	15
Student Demographics				
White	21.0%	57.1%	40.6%	42.7%
African American/Black	41.8%	21.6%	27.8%	26.5%
Hispanic/Latino	26.3%	11.7%	19.7%	18.5%
Asian/Pacific Islander	[REDACTED]			
Native American				
Multiracial				
Low Income	62.0%	30.5%	46.0%	41.0%
Limited English Proficient	[REDACTED]			
IEP				

¹ Illinois State Board of Education *School Profiles Report 2012*.

² Data provided by Information Services, Evanston/Skokie District 65.

School	Chute	Haven	Nichols	District Avg.
Student Achievement				
Making AYP?	No	No	No	No
Black/White % Meet/Exceed Reading	78 / 94	70 / 98	73 / 98	75 / 98
Difference	16	28	25	23
Black/White % Meet/Exceed Math	81 / 97	73 / 99	86 / 99	82 / 99
Difference	16	26	13	17
Hispanic/White % Meet/Exceed Reading	82 / 94	89 / 98	76 / 98	79 / 98
Difference	12	9	22	19
Hispanic/White % Meet/Exceed Math	83 / 97	89 / 99	84 / 99	87 / 99
Difference	14	10	15	12
Low income/Non LI % Meet/Exceed Reading	78 / 95	75 / 97	75 / 95	75 / 96
Difference	17	22	20	21
Low income/Non LI % Meet/Exceed Math	81 / 94	78 / 98	82 / 97	83 / 98
Difference	13	20	15	15

Three main areas of need will be addressed in the MSEED project. **(1) Low-Income Status:** The project schools all have substantial populations of low-income students, ranging from 30.5% to 62.0%, which research shows correlates with low academic achievement (Harris, 2006; Petrilli et al., 2006). Low-income families tend to be uninformed or unaware of the arts and cultural opportunities available in their communities, and have limited financial resources to seek out enrichment opportunities for their children. By providing arts integrated curriculum in schools to students from low-income backgrounds, MSEED will connect them to opportunities and cultural resources that they otherwise would not access. MSEED will train classroom teachers and build their capacity to teach arts integrated curriculum that can be implemented even after artist residencies have ended.

(2) Achievement gap: The achievement gap in the academic performance of low-income and minority students compared to that of their peers is a persistent problem across the country. Reducing that gap has been identified by District 65 as a major goal in its current strategic plan: “To make continuous progress toward eliminating the achievement gap” (Evanston/Skokie District 65, 2009). Although the overall test scores of the three project schools are relatively high, there are substantial differences between the test scores of students who are African American or Hispanic compared to those of white students, and those of low-income students compared to middle and upper income students (see Table 1). In the project schools, the difference between ISAT test scores of African American and white students is as high as 28 points in reading and 26 points in math; differences between Hispanic and white students are as high as 22 points in reading and 15 points in math; and differences between low-income students and non-low-income students are as high as 22 points in reading and 20 points in math.

Research shows that arts integration can have a greater impact on the academic performance of disadvantaged learners (Ingram and Seashore, 2003; Corbett et al., 2001; DeMoss and Morris, 2002). This result has been found in CCAP’s work as well. Over the last eight years of arts integration programming in two District 65 schools (King Lab and Bessie Rhodes), Project AIM has contributed to reducing the achievement gap in those two schools. The biggest impact has been for African American students at Bessie Rhodes, where the achievement gap was reduced by 32 points in reading and 22 points in math, and for low-income students at both Bessie Rhodes and King Lab, where the achievement gap was reduced by an average of 15.5 points in reading and 16 points in math.

(3) Social/emotional development: Middle school students often feel disenfranchised and disengaged in school. These early adolescent years are a time when students are grappling with issues of authority, autonomy, identity and self-actualization, which can lead to decreased motivation and increased behavior issues in school (Lepper et al., 1997; Roeser, Eccles & Sameroff, 2000). This can be attributed not only to age-related development, but also to the large

and impersonal nature of many middle schools, which may not meet adolescents' needs for ongoing supportive relationships with teachers and other adults (Eccles et al., 1993; Osterman, 2000; Raphael & Burke, 2012).

Conversations with MSEED school principals and district administrators have revealed similar behavior issues at project schools; data show high numbers of suspensions at all three middle schools. Project AIM, the model for MSEED, deliberately creates safe environments for middle school students that provide peer support and structures for experimentation, self-expression, and risk-taking. Arts integration increases social/emotional competencies, such as self-management, self-esteem, and communication skills. Project AIM also provides positive adult role models and mentors through a culturally diverse team of professional teaching artists and college student assistants. Project AIM students have reported in focus groups that they feel greater motivation to participate in school assignments that include the arts, and that they are more engaged in their learning when working with teaching artists.

(b) The extent to which specific gaps or weaknesses in services, infrastructure, or opportunities have been identified and will be addressed by the proposed project, including the nature and magnitude of those gaps or weaknesses.

MSEED proposes to address the following gaps and weaknesses in arts integration infrastructure in District 65: **1) Lack of Training in Arts Education:** NCLB defines the arts as a core curricular area, making it increasingly imperative that teachers and schools develop the capacity for teaching the arts. CCAP interviews with District 65 administrators, principals and teachers reveal that many lack the resources and knowledge to integrate the arts into their classrooms, and are typically not trained in arts integration methods that could aid students in deepening their understanding of basic subject areas. There has also been a decline in the arts in District 65 schools, mirroring the overall drop in school-based arts education across the country since 2001-2002 (Rabkin and Hedberg, 2011). In the project schools, there has been no systematic instruction to build capacity among classroom teachers and arts specialists in integrating the arts

into general curriculum. Meanwhile, a major curricular goal in the district's five-year strategic plan is to "Ensure curriculum enables students to discover big ideas/essential learnings through reflection, critical thinking, problem solving, conceptual understanding, appreciation of the environment, and an understanding of self, others and the world around them" (Evanston/Skokie District 65, 2009). Arts integration has been shown to be an ideal method of learning in these modes (Deasy, 2002; Eisner, 2002; Burnaford et al., 2007; Hetland et al., 2007). MSEED will increase teachers' skills in arts integration by providing professional development in multiple formats: on-going learning communities, summer institutes, whole-school staff development workshops, and coached planning meetings. Intensive and sustained classroom residencies co-taught by both teacher and teaching artist ensure that methods learned in professional development are applied to the classroom. The formation of an on-going learning community of all participating teachers and teaching artists will provide regular opportunities for reflection and evaluation. CCAP will support this effort by developing a website that includes a resource bank of lesson plans and documentation to provide teachers with access to materials and supports that can directly influence their instruction.

2) Lack of Systems for Connecting to Community Arts Resources: District 65 has limited resources for arts education and lacks a centralized system for recruiting and evaluating teaching artists who work in classrooms. Individual schools also lack the resources to recruit, screen, assess, and train teaching artists for working in schools or partnering with teachers. To address this need, MSEED will create a sustainable partnership infrastructure among project schools, District 65 administrators, and CCAP. As an arm of Columbia College Chicago, the nation's largest arts, media and communications college, CCAP can draw on a wide network of experienced professional teaching artists in all disciplines, including visual arts, photography, media arts, dance, music, theatre, and literary arts.

3) Lack of Positive Arts Role Models and Mentors: Currently, there is no systematic way in which teachers and students in project schools can be exposed to a wide range of positive

arts role models and mentors beyond the arts specialist in each school. MSEED provides a multi-dimensional approach to mentorship, offering opportunities for peer mentorship to teachers, artists, and students. Artists will mentor classroom teachers through partnerships to create project-based arts integrated units of study. Learning communities will create an ongoing interchange among experienced peers, artists, and teachers. Such peer-to-peer support in the development of curriculum across subject areas has been found to support more complex teaching and learning (Lindsley, 2006). Teaching artists will also serve as role models and mentors for students, who are thus exposed to careers in the arts.

4) Lack of Student Assessment in the Arts: CCAP interviews with classroom teachers indicate that they lack the tools, resources and expertise for assessing student performance in the arts, with few publicly available high quality assessment tools to measure student learning in the arts (PCAH, 2011; Herpin, Quinn & Li, 2012). Through MSEED, teachers will collaborate with artists, CCAP staff, and external evaluators to develop and use a wide range of student assessments as part of their training. These include: student portfolios, pre-post examples of student work, and observation checklists and rubrics that clearly define criteria for high-quality teaching and learning. The use of multiple assessment strategies will provide a more accurate account of the successes and struggles of students in their learning, leading to the growth and refinement of the arts strategies and processes being documented.

5) Need for model dissemination across an entire district: Over the past ten years, CCAP has created a highly effective, nationally recognized arts integration model in Project AIM, developed with support from two consecutive AEMDD grants. A third AEMDD grant awarded to CCAP in 2010 is incorporating digital media arts into core curriculum in Chicago technology magnet schools using the Project AIM model. The lessons learned and best practices gained from these three AEMDD grants will be disseminated through MSEED in a systematic way throughout District 65, replicating the Project AIM model at the three MSEED schools. The two current Project AIM schools in District 65, King Lab and Bessie Rhodes, will serve as on-

going demonstration sites for observation and training of MSEED teachers. Although AEMDD grants have continually aimed at building best practices and research evidence, less emphasis has been placed on disseminating models. The dissemination of a model across an entire district is a critical step in testing its efficacy, and an important goal of the U.S. Department of Education. MSEED specifically expands the successful Project AIM model to reach an entire district's middle school population. This project will document an effective process for expansion and replication, thereby addressing the goal of dissemination.

SECTION 2: PROJECT SIGNIFICANCE

The likely utility of the products (such as information, materials, processes, or techniques) that will result from the proposed project, including the potential for their being used effectively in a variety of other settings.

Likely Utility of Products: Through MSEED, a variety of products documenting curriculum and instruction as well as the artifacts of student learning will be created that can be effectively utilized by educators in other settings. *(1) A Process Manual* will be created, with templates to guide the development of school partnership infrastructure, creation of arts integrated curricula through teacher-artist collaborations, and evaluation of these components. These templates will offer useful information for replication of CCAP's model in a variety of educational settings. *(2) A handbook of sample curriculum units* will share the processes and techniques central to the creation and delivery of arts integrated instruction based on national and state standards. Curricula will demonstrate the use of the Arts Integration Learning Spiral methodology as outlined in CCAP's publication *AIMprint: New Relationships in the Arts and Learning* (Weiss and Lichtenstein, 2008). *(3) Program documentation* will include video, audio and journaling by students, teachers, and teaching artists in the planning, implementation, exhibition and reflection phases of the program. These will document the nature of teaching and learning in arts integrated curricula to provide a foundation for professional development and curriculum development that teachers and artists in other settings can replicate. *(4) Documentation of student work* will

concretely display students' learning and growth. Documentation will include student writing, visual art, photo/video of student performances, and technology-based documentation, alongside curricular rubrics used to assess student learning. **(5) A *project evaluation report*** will provide a summary of the project's outcomes, evaluation procedures, and assessment tools, and will include data collection tools such as surveys, focus group formats, observation instruments, and student assessment rubrics. This report will provide useful information on program delivery as well as evaluation procedures for use in other settings.

Potential for Being Used Effectively in Other Settings: MSEED will use a number of methods to disseminate information, materials, and products to improve arts integrated instruction. **(1) *Website Publishing:*** The CCAP website will publish the products above, which will provide an accessible starting point for other teachers in District 65 and other school districts. **(2) *Professional Development:*** Project materials will be presented at professional development workshops, curriculum fairs and state and national conferences for educators. MSEED methodologies will be introduced to varied settings, such as museums and cultural institutions; suburban, urban, and rural school settings; and Columbia College Chicago's School of Liberal Arts and Sciences, where a teaching artists' certification program is currently under consideration. **(3) *Publications for Dissemination:*** CCAP's 2008 publication, *AIMprint: New Relationships in Arts and Learning* will be disseminated as a guide for arts integration curriculum development and arts partnership building. Teachers, artists and CCAP staff will also publish articles in journals in the field, such as *The Teaching Artist Journal*, *Harvard Education Letter*, *Edutopia* and *Educational Leadership*. **(4) *Conference Presentations:*** CCAP staff, teachers and artists will present the MSEED model at conferences such as those led by Arts Education Partnerships, Americans for the Arts, Illinois State Board of Education, and the Arts Schools Network. **(5) *Technical Assistance to Support Replication:*** CCAP will provide training and technical assistance to districts, schools, institutions of higher education and non-profit organizations that choose to replicate all or part of the MSEED model, including leading

professional development sessions for teachers, school administrators, and teaching artists, and consulting on implementation of the collaborative partnership model.

These products have high potential for being used effectively in diverse settings because together they create a detailed outline of program planning, implementation, and evaluation. In addition to explanations of program infrastructure and curriculum design, the materials also will include sample curriculum units to provide concrete illustrations for replication. Documentation from the multiple perspectives of teachers, staff, students, and artists will demonstrate in detail how the program can be adopted by these groups. By using formats including print materials and audiovisual aids, the products will reach people with varied learning styles. Because MSEED is serving a diverse student population, as shown in Table 1 (see above), documentation of project results will show its effects across varying demographics. Implementing MSEED across an entire district demonstrates its ability to be replicated across various settings and with a wide range of student abilities and needs.

SECTION 3: QUALITY OF THE PROJECT DESIGN

(a) The extent to which the design of the proposed project reflects up-to-date knowledge from research and effective practices.

The MSEED project design is supported by up-to-date knowledge from research and practice that informs each of the three major components:

1. ***Partnership infrastructure*** that connects project schools, principals, teachers, students and parents with Columbia College Chicago faculty, staff, and teaching artists in order to successfully sustain CCAP's arts integration model.
2. High quality ***professional development*** for classroom teachers and teaching artists to increase their capacity to create and deliver instruction that integrates the arts across language arts, math and other content areas in alignment with state and national standards.
3. Innovative inquiry-based ***arts integrated curriculum*** designed to increase student achievement in reading and math, as well as students' social/emotional learning, executive

functioning, higher order thinking, and critical thinking skills.

(1) Partnership Infrastructure for Effective Implementation: MSEED's approach is based on up-to-date research evidence that collaborative teaching stimulates greater innovative thought (Hart, 1995). Partnerships between schools and community-based arts education providers may have originally been spurred by funding cuts for the arts in public schools, but these programs have since been found to be beneficial for improving schools, the quality of learning in the arts, and students' overall academic performance (Dreeszen, Aprill & Deasy, 1999; Stevenson & Deasy, 2005). The sustainable partnership infrastructure developed through CCAP's model of school-based Steering Committees and Learning Communities allows all partners to share goals, create inclusive leadership, and assume a sense of joint ownership. *Steering Committees* will be established at each school, consisting of school and district administrators, lead teachers, and CCAP project staff. Steering Committees will meet quarterly to oversee the implementation of project activities in each school and will assist project staff in addressing individual school goals and community needs. The establishment of Steering Committees also contributes to sustaining the project and its methodologies at each school at the grant's conclusion. *Learning Communities* will also be established at each school, consisting of teachers, arts and reading specialists, Columbia College teaching artists, and CCAP staff. The peer mentoring relationships that develop through Learning Communities are integral to the success of the project. Learning Communities will improve participants' knowledge and skills through dialogue and reflective practice as they plan, monitor, and reflect upon the project, its progress in each classroom and at the school, and any theoretical and practical concerns. Learning Communities will make use of technology in communications and collaboration through online discussion forums, web conferencing, wikis for collaborative writing, and online sharing of unit plans, video clips, websites and other resources.

Strategies for effective implementation: This partnership infrastructure will enhance the implementation of the model in new project schools, drawing upon the following research. An

evaluation of the Mississippi Whole Schools Initiative (Corbett, Wilson and Morse, 2003), a whole-school arts integration program, found that the level of implementation within a school was impacted by (1) the level of endorsement by faculty and administrators; (2) the existence of professional development that allowed school staff to become knowledgeable about new skills and get comfortable using them (including summer institutes, visits to other schools already implementing the program, collaboration with teaching artists, and reflection with colleagues); (3) the presence of coaches to answer questions, demonstrate lessons, observe and critique teachers, and conduct onsite trainings; (4) continuity of activities between formal project events; (5) the expectation of arts integration being substantively embedded into instruction; (6) substantial support in materials, time and assistance; and (7) planning and creation of systems for sustainability. In the MSEED project, the partnership infrastructure will ensure a high level of endorsement by teachers and administrators by securing their participation in leadership committees; ensure that professional development is relevant, sufficient, and effective; provide access to Columbia College staff, consultants, and teaching artists as coaches; help create ongoing discussion and reflection between formal professional development events and classroom activities; help teachers to understand how to embed arts integration effectively into their curriculum; provide support for teachers to do so; and create school-based committees that are invested in arts integration methodology and can plan for its sustainability at each school.

Aligned with recent research (Vernez et al., 2006; Noblit et al., 2009), activities in the first year of the grant period will introduce school staff and teachers to the methodology and practice of arts integration and help build their commitment to participation in the program. The first year will consist of building the implementation plan, solidifying the evaluation plan and related instruments, and developing the leadership at each project school through the formation of Steering Committees, lead teacher positions and lead teaching artist positions. Other activities will include whole school professional development workshops and observation of residencies at King Lab and Bessie Rhodes schools. This will allow all MSEED teachers to visit residencies at

one of two demonstration sites before engaging in the Summer Institute professional development. Teachers will also participate in and contribute to the development of instruments that will measure student executive functioning and higher order/critical thinking skills.

(2) Strategies for Effective Professional Development: The professional development (PD) design of MSEED follows findings from recent research (Yoon et al., 2007; Garet et al., 2010; Desimone, 2009; Blank, de las Alas & Smith, 2008). A total of 30 teachers will participate in the project: seven to nine 7th and 8th grade teachers at each of the three project schools, a total of 25 subject area teachers; and four to six arts specialists or reading specialists. Since these specialists serve all grades, they will be instrumental in building arts integration capacity for the entire school. In the first year of the grant, teachers will take a baseline assessment of skills and experience in arts integration which will be used to plan professional development offerings.

Theory of change: MSEED utilizes professional development (PD) practices and strategies that are supported by strong and moderate evidence (see section on Competitive Preference Priorities 2 below). The project's theory of change, based on Yoon et al. (2007), posits that *participation in professional development activities* will positively impact *teachers' attitudes, beliefs, content knowledge, and instructional self-efficacy* (short-term outcomes), which will positively impact *teacher practice* (intermediate outcomes), and therefore positively impact *student engagement and achievement* (long-term outcomes). Specifically, the project's **theory of change** reasons that centralized and school-based PD within a Professional Learning Community will develop knowledge and attitudes supportive of standards-based arts instruction in dance, music, theater, visual arts and media arts as well as arts integration with reading and writing. Heightened knowledge and attitudes along with ongoing intensive classroom support and collaborative data-based inquiry will foster enhanced teacher practices. Enhanced school and classroom practices will deepen student connections to the arts and to their school, heighten student critical thinking and executive functioning, foster student artistic achievement, and ultimately position students for increased achievement in reading and math.

Use of Learning Communities: Learning Communities at each school are at the core of MSEED's approach to PD. Referring to a professional community of teachers who come together to reflect upon and improve their teaching practice, this structure has been effective in enhancing teachers' effectiveness, creating a shared sense of responsibility for students' success, increasing teachers' satisfaction and morale, contributing to a greater likelihood of systemic change, and ultimately impacting student achievement (McLaughlin & Talbert, 2006; Hord, 1997; Southwest Educational Development Laboratory, 1997). To build a professional learning community, teacher teams need to meet regularly to learn, plan, and reflect on their teaching and students' learning, with a special focus on looking at student work (Arts Education Partnership, 2005). MSEED employs a school-based coaching approach where experts in a particular subject area work with small groups of teachers to improve classroom practice (Tomlinson, Brimijoin & Narvaez, 2008). Use of teaching artists with expertise in arts integration who provide coaching and modeling for teachers has been shown to be more effective than occasional discrete PD activities in enabling teachers to actually adopt what they have learned (Saraniero & Goldberg, 2011). Recent school improvement research has revealed that high quality professional development conducted within a professional community of learning teams is closely linked to improvements in student achievement in reading and math (Bryk et al., 2010).

PD goals and activities: MSEED's professional development is designed to provide a deep understanding of arts integration practice for teachers. Teachers will receive a strong foundation in: gaining specific arts skills; connecting the arts to Common Core standards in English Language Arts and math and state and national standards in the arts and social/emotional learning; and assessing student learning in the arts, reading, writing, and math. An annual Summer Institute for all project teachers will kick off the arts integration training and curriculum planning prior to each implementation school year, providing 18 hours of PD. Four workshops will be provided during the school year (14 hours total), focusing on themes that correlate to curriculum currently mandated for the 7th and 8th grade levels; inquiry-based and project-based

learning; documentation strategies; and technology as a tool for formative and summative assessments. Teachers will also receive at least 10 hours each year of follow-up support through facilitated planning meetings, coaching, observations, and reflection sessions. Arts integration will also be included in at least one whole-school PD workshop at each school, disseminating information to non-project teachers. Each year will end with a Curriculum Share where all project teachers will come together to share and reflect on their learning. Teachers will receive certified professional development units (CPDUs) to document that they have acquired professional expertise consistent with state and national standards.

These MSEED PD activities will satisfy the critical features of effective professional development that have been outlined by Desimone (2009) and Garet et al. (2001): **1) Content focus:** All PD activities will focus on arts instruction, arts integration, and information on how students learn in and through the arts; **2) Active learning:** Hands-on activities for teachers will introduce and reinforce how teachers can collaborate with teaching artists and teach arts integrated units; **3) Coherence:** Steering Committees will align MSEED PD and curriculum development with school-wide and district-wide initiatives for instruction and curriculum; **4) Duration:** PD will be both sustained and intensive, with over 45 hours each year of direct PD and an extension of PD in 28 hours each year spent co-teaching with artists; **5) Collective participation:** Participating teachers will be recruited from those teaching language arts in 7th and 8th grades in the project schools, ensuring a tight-knit cohort of teachers learning together.

Teaching artists for MSEED will members of Project AIM's cadre of veteran teaching artists, many of whom have been engaging in arts integration practice for 8-10 years. Other MSEED teaching artists will be recruited from Columbia College Chicago's full-time faculty, adjunct faculty, and graduate students in the School of Media Arts and the School of Fine and Performing Arts. Teaching artists will have expertise in dance, theater, music, visual arts, media arts and literary arts. Columbia College undergraduate and graduate students will also serve as teaching assistants and aides through internships and service-learning opportunities. Teaching

artists will lead professional development offerings for teachers and provide observation and coaching, and also receive separate training and support as teaching artists on topics such as collaborating and co-teaching with teachers in the classroom, understanding Common Core standards, and working with adolescents. Drawing on Project AIM's tested model of a Teaching Artist Cadre, teaching artists will convene monthly as a Learning Community during the school year to share ideas, reflect on their progress, and provide feedback to project staff.

(3) Research-Based Arts Integrated Curriculum Units: Researchers have found significant statistical relationships between arts education (like the programming offered under MSEED) and student achievement. An analysis of data from the National Educational Longitudinal Study showed that students with high levels of arts participation (measured by classes and extra-curricular activities) performed better than their peers across a wide range of achievement variables (Catterall, Chapleau, and Iwanaga, 1999). Other researchers have found similar statistically significant relationships between arts involvement and student achievement (Rabkin & Redmond, 2004; Center for Arts Education, 2010). Research on arts integration in particular shows a positive impact on students, teachers and schools (Burnaford, Brown, Doherty & McLaughlin, 2007). Students and schools implementing arts integrated curriculum have been found to increase test scores, with scores increasing for every additional unit of arts integrated curriculum (Burnaford, Scripp & Paradis, 2012; Catterall & Waldorf, 1999; Ingram & Seashore, 2003). Learning in and through the arts also increases student engagement and investment in their own learning, which is critical to students deciding to stay in school and pursue higher education. One national sample indicates that youth who participated in arts programs for an average of 7-10 hours a week for 32-40 weeks a year were four times as likely to win an award for academic achievement, four times more likely to participate in a math and science fair, and three times more likely to win an award for school attendance (Heath, 1998).

MSEED's curricular approach is based on Project AIM's tested *Arts Integration Learning Spiral* (Weiss and Lichtenstein, 2008). The Learning Spiral is a visual depiction of an

arts integration pedagogical model which engages teachers, artists, and students in exploring inquiry questions that, together with overarching *big ideas*, are driving forces in effective arts integration. The *big idea* is a generative, overarching concept that shapes an entire arts integrated unit of study and makes connections to core content subject areas. Some examples of *big ideas* include: *Democracy, Coming of Age, Identity, Community, Survival, Relationships, Transformation, and Time*. The *big idea* is explored through multiple art forms—dance, drama, music, media arts and visual arts—to generate inquiry and deepen learning across disciplines in a particular subject or concept. In the Learning Spiral, reminiscent of Bruner’s spiral curriculum (1960), learning occurs through immersion in doing, making, and sharing that in turn engenders new intentions for teaching and learning on the part of all (Burnaford, 2007). The spiral has the following components: (1) Discover new intentions for teaching and learning, (2) Create a safe community for learners, (3) Learn in the language of the arts, (4) Immerse in the *big ideas* through art making, (5) Revise and share, (6) Perform and exhibit, (7) Reflect and assess, and (8) Discover new intentions for teaching and learning (Weiss and Lichtenstein, 2008).

Creation of arts integrated units: Each year, pairs of teachers and artists will partner together to create an arts integrated curriculum unit in 7th and 8th grade classrooms. Teachers and artists will co-teach this unit in 12-15 hours of instruction taking place over 5 to 10 weeks. Some previous examples of Project AIM arts integrated units and their connection to core curricula are: a class of 7th grade students created public service announcements through theater and film on topics important to them. These students gained academic skills in conducting research about contemporary issues, writing persuasively for an audience, and combining text with images, in addition to learning how to work productively in small groups. Another class of 7th graders was guided by a science teacher and a filmmaker to create a film about water as a threatened resource. Using the scientific method as a model for the filmmaking process, students asked: “Why is water the most important natural resource?” In another unit, 6th grade students created portraits of school staff and teachers using photography and poetry. They learned how to use

different writing styles to communicate with different audiences, as well as to make effective photographs using a digital camera with proper perspective and lighting.

Documentation and Demonstrations of Student Learning: In May of each year, MSEED will conduct culminating events at each school or in each classroom, showcasing student work such as videos, film, website design, and process documentation. These exhibitions will provide opportunities for students to demonstrate their knowledge and skills to peers and adults, for project teachers to learn from each other, and for the dissemination of curricular products to teachers in other district schools.

In exploring how arts integration can ***increase achievement in the arts, math, and reading***, MSEED will utilize the Project AIM parallel processes approach—a theory of arts and learning that investigates the ways in which learning in and through the arts parallels and connects to learning in other academic subjects. The curricular units will encourage personal connections to literacy, mathematics, science, social studies and art-making through inquiry-based instruction, collaborative learning projects, and small group discussions. Approaching reading and writing as inquiry through the arts respects students’ prior experience, allows students to become active participants in the text, and helps them to explore and create new meanings (Wilhelm, 1997; Wilhelm, Baker & Dube, 2001). Research on adolescent reading instruction shows that discussion-based approaches to literacy content are strongly linked to student achievement (Applebee, Langer, Nystrand, and Gamoran, 2003). Through MSEED, students will develop habits of artistic thinking, and learn and document real-world contexts that can assist in accessing otherwise abstract ideas (Burns, 2005).

MSEED will also explore how arts integration impacts students’ ***executive function, higher order thinking skills, and critical thinking***. Various definitions of these terms overlap in terms of the skills and abilities to which they refer. ***Executive function*** is a term developed in the field of neuropsychology that refers to cognitive processes such as planning, attention, reasoning, self-monitoring, and working memory (Chan et al., 2008). The concept of ***higher order thinking***

skills is most commonly defined using Bloom’s Taxonomy, and includes analysis, synthesis and evaluation. Brookhart (2010) categorizes definitions of higher order thinking skills into three groups based on *transfer* (the ability to apply knowledge and skills to new contexts); *critical thinking* (reflective thinking focused on deciding what to believe or do) and *problem-solving*. **Critical thinking** has also been defined as comprising cognitive skills in interpretation, analysis, evaluation, inference, explanation, and self-regulation (Facione, 2013). Many of the specific skills included in these varying definitions of executive function, higher order thinking and critical thinking are key aspects of the Common Core standards, which ask students to interpret, assess, integrate, evaluate, persevere, critique, reason, and discern patterns and structures, among other abilities (National Governors Association Center for Best Practices, 2010a and 2010b). Evaluations of various arts integration programs, including CCAP’s own Project AIM, have found a positive impact of arts integration on many of these skills, including planning, representing ideas, understanding multiple viewpoints, hypothesizing, having extended focus, and displaying evidential reasoning (Goff and Ludwig, 2013; Ingram, 2012).

(b) 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.

Comprehensive Effort to Improve Teaching and Learning: The proposed project is part of District 65’s overall effort to improve teaching and learning, guided by goals in its five-year strategic plan (Evanston/Skokie CC School District 65, 2009). In particular, MSEED has been planned in close collaboration with the district superintendent as part of a district-wide effort to increase access to the arts in schools. Research demonstrates that partnerships between K-12 and higher education ultimately benefits students (Polin & Rich, 2007). One study describes some of the outcomes as recognition of a K-20 teaching professional continuum, understanding and appreciation of educational research, implementation of common practices, decreased isolation from peers, and increased focus on student learning (Landel & Ohana, 2006). In general, K-12 schools benefit from increased access to resources, curricula, professional development,

research, instructional guidance, and expertise; and post-secondary institutions benefit from access to learning opportunities for undergraduate and graduate students, pre-service teacher training, teaching artist training, research opportunities, and community engagement. By bringing together District 65 with Columbia College Chicago, one of the nation's largest arts, media and communications colleges, MSEED magnifies the impact of arts integration practice.

Alignment of Curriculum to State and National Standards: The MSEED curricular framework will guide teachers and artists in designing curricula that explicitly address Common Core standards in English Language Arts and state and national standards in the arts. MSEED will primarily serve language arts teachers in the 7th and 8th grades, and support student achievement in math indirectly by developing students' executive functioning, higher order thinking, and critical thinking skills. Math teachers will also be supported through whole school PD workshops; project staff will also encourage cross-curricular arts integrated units that incorporate math as well as language arts.

Selected standards to be addressed include: *National standards for the arts* (developed by the Consortium of National Arts Education Associations):

- Comparing and incorporating art forms by analyzing methods of presentation and audience response for theatre, dramatic media (such as film, television, and electronic media), and other art forms (theatre content standard 6);
- Analyzing, evaluating, and constructing meanings from improvised and scripted scenes and from theatre, film, television, and electronic media productions (theatre content standard 7);
- Choosing and evaluating a range of subject matter, symbols, and ideas (visual arts content standard 3).

Illinois state standards for fine arts:

- Know the language of the arts (Goal 25);
- Through creating and performing, understand how works of art are produced (Goal 26);

- Understand processes, traditional tools, and modern technologies used in the arts (Goal 26A);
- Apply skills and knowledge to create and perform in one or more of the arts (Goal 26B);
- Understand the role of the arts in civilizations, past and present (Goal 27).

Common Core State Standards for English Language Arts:

- Use concrete words and phrases and sensory details to convey experiences and events precisely. Use imagery, simile, metaphor, onomatopoeia, hyperbole, alliteration;
- Analyze the relationship between a primary and secondary source on the same topic;
- Analyze how visual/multimedia elements contribute to the meaning, tone, or beauty of a text;
- Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they “see” and “hear” when reading the text to what they perceive when they listen or watch;
- Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text;
- Evaluate the advantages and disadvantages of using different mediums (e.g. print or digital text, video, multimedia) to present a particular topic or idea;
- Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

(c) The extent to which the proposed project is designed to build capacity and yield results that will extend beyond the period of Federal financial assistance.

The proposed project is designed to build capacity and yield results that will extend beyond federal funding in a number of ways. *First*, schools will build capacity as classroom teachers develop professional skills to integrate the arts into their classrooms, and leadership skills to disseminate the program within their schools and districts. The project lead teachers, arts specialists, and reading specialists at the schools will be able to use their increased knowledge in arts integration with other teachers. Project teachers will showcase their work and lead

professional development for other teachers in the district at district-wide events. All project teachers will receive resource guides, manuals, materials, and curricular samples that can be utilized beyond the period of federal assistance. *Second*, one priority of this project is to create organizational structures that will provide a foundation to continue the project long-term. The major organizational units include: the establishment of Steering Committees and Learning Communities at each of the project schools as an operational practice, and the teacher/teaching artist partnerships as a critical professional development strategy. The MSEED professional development will provide other methodologies that can be used repeatedly by teachers and teaching artists beyond the life of the project. *Third*, CCAP will invite project teachers to participate in CCAP’s technical assistance services provided to other schools and districts as appropriate, to share their experiences and knowledge to peers to disseminate the MSEED model. *Fourth*, as a result of the partnerships nurtured through this project, District 65 schools and teachers will develop a wide network of professional arts educators and resources, including Columbia College faculty and students, and community-based teaching artists, that can continue to be tapped beyond the period of federal financial assistance. These networks can provide schools with a resource for recruiting high quality teaching artists in the future. *Fifth*, CCAP staff and District 65 will position this grant as seed money to leverage increased dollars for the project and actively seek additional long-term funding to expand into more grades at each school and into other schools.

SECTION 4: QUALITY OF PROJECT PERSONNEL
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The qualifications, including relevant training and experience, of key project personnel, and the extent to which the applicant encourages 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 project personnel include the CCAP Executive Director, Director of Teaching Artist Development, AIM/TAD Program Manager, and External Evaluators. *David Flatley, Executive*

Director, will serve as Principal Investigator and Project Director for MSEED. He has over twenty years of experience in developing and implementing educational and intercultural initiatives designed to improve teacher practice and student achievement and effect whole-school change. Prior to joining CCAP, Mr. Flatley managed an initiative that utilized the arts as a vehicle for learning across the curriculum in Chicago schools, a curriculum that was ultimately replicated throughout Scotland. He has an M.A. in Arts Administration from the University of Wisconsin-Madison and a B.S. in Business Administration from the University of Illinois at Urbana Champaign.

Lynne Pace Green, Director of Teaching Artist Development, will serve as the Project Manager for MSEED. Ms. Green has over 25 years of experience in arts education and arts integration, and has supervised theater education programs, school-based residencies, after school classes, and teaching artist development. She has an MFA in Drama and Theatre for Youth from Eastern Michigan University, and a BA in Speech Communications and Theatre from Southern Illinois University.

Alyssa Sorresso, AIM/TAD Program Manager, will serve as the Project Coordinator for MSEED. She has nine years of experience as teaching artist and arts administrator, working directly with at-risk children and youth in out-of-school time settings as well as coordinating arts education programs. She has a BA in Theatre Arts from the University of Michigan, and a MA in Applied Theatre from the University of London Central School of Speech and Drama.

Lara Pruitt will serve as Internal Evaluator/Curriculum Coach for MSEED. She has served in this role for Project AIM for eight years, and has over twenty years of experience as a classroom teacher, arts integration specialist, and arts education consultant, specializing in strategic planning, assessment and evaluation. She has an MAT from National-Louis University with Illinois teaching certification in Elementary Education and Special Education K-12.

The external evaluators will come from the **Center for School Evaluation, Intervention and Training at Loyola University Chicago**. See Section 6a below for qualifications.

Part time Lead Artist Coordinators will be hired, ideally with experience working in Evanston schools with deep knowledge of the community and arts integration. CCAP will follow the equal opportunity guidelines of Columbia College Chicago, and its Affirmative Action Search and Screen procedures (e.g. by recruiting from diverse communities and having ethnically diverse committees). Columbia College encourages applications for employment from persons who are members of traditionally underrepresented groups, and considers applicants for all positions without regard to race, color, religion, creed, gender, national origin, age, disability, marital or veteran status, or any other legally protected status.

SECTION 5: QUALITY OF THE MANAGEMENT PLAN

(a) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

The management plan has been designed so that that the program’s objectives will be achieved on time and within budget, with clearly defined responsibilities, timelines, and milestones (see Table 2 and Section 4 for a description of staff responsibilities). The overall management of the project will be undertaken by the *Project Management Team* composed of: the Project Director/CCAP Executive Director, Project Manager, Project Coordinator, Internal Evaluator/Curriculum Coach, Lead Artist Coordinators, and key administrators from District 65. This management group will meet quarterly to: (1) review timelines and milestones, (2) monitor the budget, (3) define the responsibilities of all staff, (4) implement and carry out an on-going review of the project plans, and (5) review and modify the activities of the project based on feedback received from the project’s staff. The group will meet more frequently in the first project year for planning purposes. Planning and management at each school will be undertaken by the school’s *Steering Committee*, composed of the principal, lead teachers, arts specialist(s), and CCAP project staff. Steering Committees will meet quarterly to oversee the on-time implementation of project activities in each school.

TABLE 2: TIMELINE, MILESTONES & RESPONSIBILITIES

Personnel Glossary: *PD: Project Director, PM: Project Manager, PC: Project Coordinator, LAC: Lead Artist Coordinators, IECC: Internal Evaluator/Curriculum Coach, EE: External Evaluators, PMT: Project Management Team, SSC: School Steering Committees, TA: Teaching Artists, CT: Classroom Teachers and Specialists, D65: District 65 staff.*

Objectives	Timeline	Milestones	Persons Responsible
Component 1: Create partnership infrastructure that connects project schools, principals, teachers, students and parents with Columbia College Chicago faculty, staff, and teaching artists in order to successfully implement the MSEED model.			
Establish Project Management Team and management procedures	Convene Oct. 2013; then quarterly Jan. 2014 – Sept. 2017	The Project Management Team will convene at the beginning of the project and quarterly thereafter to plan and manage the project.	PD, PM, PC, LAC, IECC, D65
Establish Steering Committees at each school	1 st meeting by Dec. 2013; then quarterly Jan. 2014 – June 2017	Steering Committees will be formed at each school at the beginning of the project and conduct quarterly meetings to plan and manage project activities at each school.	PM, IECC, D65
Conduct project launch activities	Oct. 2013 – June 2014	CCAP will conduct and document an environmental audit of the needs and assets of the school, teachers, students, and parents; and conduct information sessions for teachers, staff and parents.	PMT, SSC

Recruit teaching artists from Columbia College Chicago faculty and graduate students	Aug. 2014, Aug. 2015, Aug. 2016	Teaching artists will be recruited at the beginning of the project, with open positions filled at the start of each year. Recruitment and hiring will be documented.	PM, PC
Recruit teaching artist assistants from Columbia College Chicago students	Sept. 2014, Sept. 2015, Sept. 2016	Teaching assistants will be recruited each year and hired as interns or as a service-learning opportunity. Recruitment and hiring will be documented.	PC
Establish Learning Communities at each school	1 st meeting by Feb. 2014, then quarterly to June 2017	Learning Communities will be formed and documented at each school in the first year, and meet quarterly to plan, reflect, and learn together.	PM, PC, CT, TA
Create teacher-artist partnerships at each school	Sept. 2015, Sept. 2016, Sept. 2017	Classroom teachers will be paired with teaching artists to plan arts integrated curriculum units in years 2-4.	PM, IECC, SSC
Conduct evaluation activities	Oct. to July of each school year	CCAP will work with external evaluators to create a detailed evaluation plan, collect relevant data, and send data to evaluators for analysis and reporting purposes.	PMT, EE
<p>Component 2: Conduct professional development for classroom teachers and teaching artists to increase their capacity to create and deliver instruction that integrates the arts across language arts, math and other content areas in alignment with state and national standards.</p>			

Project teachers and specialists receive professional development in arts integration	June 2014, June 2015, June 2016	Attendance records will document that at least 80% of all project teachers participate in an annual Summer Institute to learn arts skills, arts integration strategies, and other topics.	PM, PC, D65, TA
Project teachers receive professional development at school sites	Jan. - May 2014; then Oct. – May of each school year	Project teachers will receive additional PD in the form of workshops, facilitated planning meetings, coaching and observation, with documentation of attendance.	PM, SSC, TA
Non-project teachers receive professional development in arts integration	Mar. 2014; Nov. 2014; Nov. 2015; Nov. 2016	All teachers in each school will have the opportunity to learn about arts integration through a whole-school PD workshop each year, with documentation of attendance.	PM, SSC, TA
Teachers showcase unit plans and documentation	May 2015, May 2016, May 2017	At least 80% of project teachers will present curriculum unit plans with documentation in an annual Curriculum Share.	CT, TA
Component 3: Provide arts integrated curriculum designed to increase student achievement in reading and math, as well as students’ social/emotional learning, executive functioning, higher order thinking, and critical thinking skills.			
Students receive instruction in arts integrated curriculum units	Between Nov.-May each year	Approximately 1,200 students each year in 7 th and 8 th grades will receive arts integrated instruction, according to attendance records.	CT, TA

Students showcase their learning and growth	May 2015, May 2016, May 2017	At least 80% of participating students will present products of their learning at a showcase at in their classroom or school, with documentation.	CT, TA, SSC
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The management of this project is likely to be effective because its structure is based on CCAP’s previously developed arts integration projects funded by three AEMDD grants from 2005-2008, 2008-2012, and 2010-2014. Lessons learned from these grants include: 1) the importance of conducting an *environmental audit* of target schools before serious planning begins, and 2) the basic condition that *schools must demonstrate a commitment* to integrating the arts as part of their daytime, in-classroom curriculum.

(b) The extent to which the time commitments of the project director/principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project.

Time commitments of the Project Director/Principal Investigator, Project Manager, and other key personnel are appropriate and adequate to meet the objectives of the proposed project. All major project components have staff allocated to supervise and implement them. Specific responsibilities and time allocations of key project personnel are as follows: *CCAP Executive Director, David A. Flatley (15% total – 5% grant funds, 10% match), will serve as Principal Investigator and Project Director*, responsible for overall management and budget supervision for MSEED. He will support the development of infrastructure at the college level to sustain the dissemination strategy and leverage institutional expertise in curriculum development. *Director of Teaching Artist Development, Lynne Pace Green (50% total – 40% grant funds, 10% match), will serve as Project Manager*. She will lead planning and implementation of the project, cultivation of partnerships with principals and lead teachers, and recruitment and professional development of teaching artists. She will be responsible for overseeing external and internal evaluation procedures, and communication with external evaluators. She will supervise

the Project Coordinator and lead the Project Management Team and School Steering Committees. *AIM/TAD Program Manager, Alyssa Sorresso (35%), will serve as Project Coordinator*, responsible for carrying out the delivery of services, including residencies and professional development. She will also monitor the performance of teaching artists, provide coaching and observation, and help to determine the training needs of artists and teachers. *Lara Pruitt will serve as Internal Evaluator and Curriculum Coach*, supporting teachers and artists with design and implementation of curriculum and assessment. She will assist with design and implementation of the evaluation, working as an intermediary between schools, program staff and evaluators to ensure that all data is collected. She will also support analysis of data and ensure that evaluation findings become part of program revision and redesign through reflective practice by program staff and participants. *External Evaluators, David Ensminger and Diane Morrison* will direct evaluation activities. They will review the evaluation design and outcomes, develop the evaluation plan, help to determine data collection procedures, provide data analysis for internal reports and grant requirements, and write formal evaluation reports once a year. *Communications Associate, Chris Roach (10%),* will oversee production of program documentation, and supervise dissemination procedures including website production and maintenance. She has over seven years of marketing and communications experience, including media relations, writing, editing, and social marketing. *Associate Director, Budget and Operations, Leslie Woods (5%),* will oversee the human resources, operations, and internal control activities of the project. She will ensure that all budgetary accounting and annual budget close-outs conform to guidelines stipulated by the grant. *Administrative Assistant, Toni Campbell (5%),* will assist with program logistics, purchasing, teaching artist hiring paperwork, and payroll and stipends for contract and part-time staff involved in the project. In addition to these personnel, two veteran *Lead Artist Coordinators* will provide additional on-site coordination at the project schools.

(c) The adequacy of procedures for ensuring feedback and continuous improvement in the

operation of the proposed project.

The MSEED initiative will use a range of procedures for ensuring feedback and continuous improvement in the project, with the goal of further developing MSEED as a sustainable and replicable model. Feedback will be gathered on a quarterly basis from students, teachers and artists through *focus groups, interviews, and satisfaction surveys*. Feedback surveys will be gathered from participants at each professional development workshop. In addition, *formative assessments of student learning* will be administered before and after each curriculum unit is implemented, giving immediate feedback on student improvement in reading and math. Results of this feedback will be discussed at quarterly Learning Community meetings, where teachers and artists can use the data to make improvements to curriculum and teaching practices; at quarterly Steering Committee meetings, where administrators and lead teachers can use the data to determine improvements to site operations, professional development offerings, and overarching curriculum development goals; and at quarterly Project Management Team meetings, where project staff and District 65 administrators can use the data to determine improvements to project logistics, professional development sessions, teacher-artist partnerships, support and coaching for teachers and artists, and other overarching aspects of the project. The Project Management Team will compare feedback data to project benchmarks and timelines and make adjustments as necessary. The Project Director or Project Manager or both will be present at all meetings to ensure continuity and cohesive decision-making, and will document changes and improvements made to the program model. These decisions will be reviewed at subsequent meetings of Learning Communities, Steering Committees, and the Project Management Team, so that the success of results can be determined and further improvements discussed. For example, newer teaching artists may need additional coaching and mentoring that can be provided by veteran teaching artists, or a struggling Learning Community in one school site may benefit from an outside facilitator. Data will be shared with the External Evaluators, who will also conduct an independent analysis of the program that includes assessment of teacher and student learning.

This will support annual reporting requirements as well as inform further program adjustments moving into subsequent years. Formal evaluations will also be documented as part of the dissemination plan.

SECTION 6: QUALITY OF THE PROJECT EVALUATION

(a) The use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data.

(1) Overview of the Evaluation Methods: The purpose of the MSEED evaluation plan is to provide a thorough analysis of whether the project’s objectives have been met through a summative assessment and how the project can be improved as it is being implemented through a formative assessment, using objective quantitative and qualitative data. The evaluation goals include: (1) assessing professional development (PD) processes and participation; (2) assessing the impact of PD on teacher abilities to design and deliver arts integrated curricular concepts and instruction, and participate effectively in PD programs; (3) assessing the impact of arts integrated instruction on students’ academic achievement in reading and mathematics, and on students’ critical thinking, higher order thinking, and executive functioning skills (e.g. planning, organizing, strategizing, and focusing on and remembering details).

(2) An Experimental Design for Students and a Pre-Post Assessment Design for Teachers: MSEED will employ an experimental design in order to analyze the impact the project has on the 30 participating teachers and their 1,200 students. The project will employ an in-group experimental treatment design to assess the project impact on students and pre-post assessments for impact on teachers. MSEED’s student impact design is described in detail below under sub-section 8, and has been designed to increase the internal validity of the evaluation design and effectively rule out alternative explanations for the effects of the project.

(3) Management of Project’s Evaluation: The Project Management Team will be responsible for managing the project’s evaluation design. Led by the Project Manager, this group will work with the External Evaluator to refine the evaluation design, implement it, and report

quarterly on formative and summative evaluation results. Each school will also have a contact person for collecting statistical data and surveys. The Project Management Team, led by the Project Manager, will be responsible for all federal accountability reports.

(4) External Evaluator: The Management Team will work with the External Evaluators who will lend credibility to the evaluation design. The two External Evaluators (see the Appendices for their résumés) are from the *Center for School Evaluation, Intervention and Training (CSEIT) at Loyola University Chicago*. *Dr. David Ensminger* holds a PhD in Instructional Design and Development from the University of South Alabama, and is a professor in the Curriculum and Instruction department of the School of Education at Loyola University, where he teaches courses on Research Methods and Program Evaluation. He has published numerous refereed articles for journals. *Dr. Diane Morrison*, the Director of CSEIT, received a PhD in Education from Loyola University Chicago. Dr. Morrison is also on the faculty of the School of Education at Loyola University. Both Dr. Ensminger and Dr. Morrison have served as evaluators on federal, state, and locally funded grant programs.

(5) Appropriate Quantitative Methods of Evaluation, Data Collection, and Methods of Analysis: To determine the degree to which the project has achieved its objectives, a wide range of quantitative summative measures will be used for each project objective. The Project Manager, with the assistance of the Management Team and the External Evaluators, will create a computer-based Evaluation Management System that will enable project staff to accurately track teacher and student outcomes. Following the within subjects and repeated measures nature of the proposed evaluation design, the impact of the program will be assessed by examining the changes in performance measures related to the proposed student outcomes measured repeatedly over a period of time. This design will allow for analysis of student growth from baseline to treatment, and from treatment year 1 to treatment year 2, providing the opportunity to see the impact that the program has on student growth across time and exposure. Where appropriate, descriptive statistics, correlations, tests of measures of central tendency, and repeated measures

ANOVAs will be used to assess the significance of impact. The alpha level for significance tests will be set at .05, and appropriate effect size indices (e.g. eta square) will be calculated to estimate the magnitude of program effects on the quantitative outcomes. Cohen's *d* (Cohen, 1988) will be used to measure the standard deviation between treatment and control means for effect sizes. For outcomes and benchmarks in sub-section 10 below, Robert Slavin (2013), a leader in the field of educational research and evaluation, has demonstrated that an effect size of .20 is an acceptable level of impact for small scale education research, the effect size level that is used in this evaluation design.

(6) Baseline and Post Assessment Data Collection, Availability of Results, Timelines for Data Collection, and Reporting to the U.S. Department of Education: The Management Team and the External Evaluators will be responsible for conducting the project's evaluation activities in a timely manner and preparing the Annual Performance Report (APR), which will report on the extent to which the project is meeting its goals and performance measures. Baseline pre-assessment data for summative assessments will be collected for project teachers and students in October 2013 in the first year, and August of ensuing years (see sub-section 10 below for details on these assessments). Post-assessments, using the same instruments, will be administered to project teachers and students by June of each project year. Formative assessments will be administered to teachers and students quarterly throughout each project year. Finally, the project will report on the two GPRA requirements of the percentage of students who demonstrate proficiency in reading and math compared to those of comparison groups.

(7) Quantitative, Qualitative, and Formative Assessments: The project's quantitative assessments and timelines for their collection are described in detail in sub-section 11 below. In addition, the quantitative component will be reinforced with periodic formative measures of project processes and perceptions of participants. Consistent with a formative evaluation perspective, the qualitative aspect of the project will involve the evaluators and the participants themselves through an in-depth study of how change occurs within the context of the project.

The qualitative measures will include a content analysis of documents such as: feedback, satisfaction, and outcome PD questionnaires (using Likert scales and open-ended items); instructional curricula and classroom videotapes; meeting agendas and minutes; case studies of schools, teachers, and students; teacher and student journals; the project website; focus groups and structured and unstructured interviews; written observation reports; sample curricular unit/lesson artifacts; samples of student work and inquiry-based arts projects; case studies; and minutes of staff and teacher planning meetings. Finally, throughout the program, measures such as questionnaires with open-ended items, observations, focus groups, and interviews will be used to assess modifications to accomplish the project's goals (see section 6b below for a description of how the project will provide for continual improvement).

(8) What the Evaluation Methods of the Project Will Be, How the Project's Experimental Design Will Be Conducted, and When Data Will Be Collected: *Evaluation methods and design assessing student impact:* Implementing the program using multiple cohorts allows for the evaluation plan to employ a multiple cohort within-student experimental design to study the impact of the program activities on students' outcome measures. These evaluation processes use a repeated measures design, which capitalizes on within-subject comparisons (i.e. baseline measures to treatment measures within the same cohort). Using this approach, the External Evaluators will be able to examine the growth of students on outcome measures as they progress through the program, comparing changes in baseline measures to treatment measures and treatment 1 measures to treatment 2 measures to not only examine changes as students receive initial treatment, but to examine the impact of multiple treatments on the same students. The evaluation will also employ a pattern matching technique to examine student impact. All cohorts (1-4) will have a baseline and treatment 1 comparison, and cohorts 1 and 4 will have multiple baseline measures prior to treatment.

When student assessment data will be collected: Chart 1 below graphically depicts how all cohorts (1-4) will have a baseline and treatment 1 comparison, and cohorts 1 and 4 have

multiple baseline measures prior to treatment. Chart 1 also depicts how baseline data for cohorts 1-3 will be collected in October of the first year, baseline data for cohorts 1 and 4 will be collected in October of the second year, and baseline data for cohort 4 in the third year. According to this design, cohorts 1 and 2 will have 2 years of treatment, and cohorts 3 and 4 will have 1 year of treatment. This within-student experimental design, as described below, will enable the project to determine how varying dosages of treatment for different grade levels will have an impact on students.

Chart 1: Baseline data and program treatments for student cohorts 1-4 for years 1-4

	Year 1 (2013-14)	Year 2 (2014-15)	Year 3 (2015-16)	Year 4 (2016-17)
Grade 5	Baseline (Cohort 1)	Baseline (Cohort 4)	N/A	N/A
Grade 6	Baseline (Cohort 2)	Baseline (Cohort 1)	Baseline (Cohort 4)	N/A
Grade 7	Baseline (Cohort 3)	Treatment 1 (Cohort 2)	Treatment 1 (Cohort 1)	Treatment 1 (Cohort 4)
Grade 8	N/A	Treatment 1 (Cohort 3)	Treatment 2 (Cohort 2)	Treatment 2 (Cohort 1)

The project hypothesizes that if the program has impact, similar results should occur for each cohort when baseline and treatment 1 outcome measures are compared, and cohorts 1 and 4 should have similar baseline1, baseline 2, treatment 1 changes when comparisons across the three levels are made. In addition cohorts 2 and 3 will have multiple treatments, so we should be able to hypothesize a similar patterns of results for baseline, treatment 1 and treatment 2 comparisons on student outcome measures for these two cohorts. Since the project is being implemented in three separate sites, the above pattern matching can also be conducted across the three sites to determine the impact of the program at each site and the program as a whole.

This design will also allow for across cohort comparisons as well. Data collection occurs for all cohorts during their seventh grade year. Cohorts 1, 2, & 4 will receive treatment during that grade, while cohort 3 will not. This allows for three treatment groups and one control group comparison using seventh grade data. It can be hypothesized that differences on student outcome measures will exist between cohort 3 and cohorts 1, 2, and 4, while no differences should exist between cohorts 1, 2, and 4. Again, pattern matching across all three sites could be used to hypothesize a similar pattern of results at each school site for comparison of cohorts' seventh grade data.

Evaluation methods and design assessing teacher impact: Pre-post assessments (see below under Objective 4) will be developed to assess the degree to which teachers have acquired and applied arts integration skills and concepts in their classroom. These instruments will be developed by the External Evaluators in collaboration with project staff by June of 2014.

When teacher assessment data will be collected: All teacher baseline or pre-assessments will be administered in October of the second year. Post assessments will be administered in May of the second, third, and fourth years.

(9) When reports will be available: The Project Manager and External Evaluators will prepare and submit annual reports by May 15 of each project year or by another date identified by the U.S. Department of Education, and by December 31 of the final year.

(10) Objective Performance Measures Clearly Related to the Outcomes of the Project: Outcomes, Benchmarks and Performance Measures, Assessment Instruments and Timelines for Their Collection:

Schedule for instrumentation development: All of the evaluation instruments listed below will be developed by March 31, 2014 by the External Evaluators. ***Validity and Reliability of Assessment Instruments:*** Previously established validity and reliability coefficients for standardized instruments used in the study will be reported. It is expected that all standardized instruments and those developed by the project will possess validity coefficients of .70 or above

and reliability coefficients of at least .80.

OBJECTIVE 1: Increasing student achievement in mathematics and reading through participation in the MSEED program model. By May 31, 2017, participating project students will have demonstrated significant increased proficiency in mathematics and reading compared to those in within-student control groups.

Outcome measure for Objective 1: After three years of program implementation, aggregate standardized project student test scores (MAPS) will see significant growth with an effect size of .20 for middle school students who have received two years of treatment.

Benchmark measures for Objective 1: Significant changes will have occurred in project students' mathematics and reading achievement, with an effect size between baseline and treatment 1 of .10, and between treatment 1 and treatment 2 of .10, respectively by Sept. 2016 and 2017, as measured by ISAT test scores.

Measureable assessments for Objective 1: Valid and reliable standardized Illinois Standardized Achievement Test scores in reading will be used to assess value added each year.

OBJECTIVE 2: Increasing students' executive functioning capacity. By May 31, 2017, project students will report a significant increase in their executive functioning skills, such as planning, organizing, strategizing, paying attention to and remembering details, and managing time and space, compared to those in within-student control groups.

Outcome measure for Objective 2: After three years of implementation, project students in treatment groups will realize significant growth in executive functioning with an effect size of .20 for middle school students who have received two years of treatment.

Benchmark measures for Objective 2: Significant changes will have occurred in project students' executive functioning abilities, with an effect size between baseline and treatment 1 of .10, and between treatment 1 and treatment 2 of .10, respectively by Sept. 2016 and 2017, as measured by a self-assessment of students' executive functioning skills.

Measureable assessments for Objective 2: The External Evaluators in collaboration with

project staff will develop a reliable and valid student executive functioning instrument, based on a survey of existing instrumentation in this area. That student self-assessment instrument will be used to determine the degree to which students are engaged in planning, organizing, strategizing, paying attention to and remembering details, and managing time and space. In addition, student arts projects will be analyzed to determine how they illustrate executive functioning skills.

OBJECTIVE 3: Increasing students' higher order thinking skills. By May 31, 2017, project students will report an increase in their higher order and critical thinking skills, with specific emphasis on cognitive processing related to analysis, evaluation, and synthesis compared to those in within-student control groups.

Outcome measure for Objective 3: By May 31, 2017, project students in treatment groups will realize significant growth in higher order thinking skills, with an effect size of .20 for students who have received two years of treatment in the project, as measured by a self-assessment of students' higher order and critical thinking skills.

Benchmark for Objective 3: Significant changes will have occurred in project students' higher order and critical thinking abilities, with an effect size between baseline and treatment 1 of .10, and between treatment 1 and treatment 2 of .10, respectively by Sept. 2016 and 2017.

Measureable assessments for Objective 3: The External Evaluators in collaboration with project staff will develop a reliable and valid student higher order and critical thinking instrument, based on a survey of existing instrumentation in this area. This student self-assessment instrument will be used to determine the degree to which students are engaged in such higher order and critical thinking skills as: questioning and investigating; observing and describing; reasoning and providing evidence; exploring multiple viewpoints; comparing and connecting; and uncovering complexity.

OBJECTIVE 4: Increasing middle school teachers' ability to create and deliver arts integrated curriculum to students through the MSEED model. By June 15, 2017, the project's 30 middle school teachers will have increased their ability to create and deliver arts integrated

curriculum, addressing Common Core standards and other national and state standards.

Outcome measures for Objective 4: By June 15, 2017, 80% of the project's 30 teachers will have increased their ability to: (a) translate student learning of skills and concepts across the arts and literacy; (b) collaborate with their colleagues in delivering classroom instruction integrating the arts; (c) effectively participate in professional development sessions on instructional skills in the arts; (d) deliver curricular concepts across the arts and/or literacy.

Benchmark measures for Objective 4:

a. Translating student learning skills: By May of 2015, 70%; by May of 2016, 75%; by May of 2017, at least 80% of treatment teachers will have presented documentation that demonstrates that their design of curriculum delivery increases student engagement through arts integration or related inquiry-based instructional strategies, as measured by pre and post comparison of unit/lesson plans and observation protocols of teachers.

b. Increase in professional skills: By May of 2015, 70%; by May of 2016, 75%; by May of 2017, at least 80% of treatment teachers will report increased professional skills that enable them to collaborate with others in delivering classroom instruction as demonstrated through teacher surveys and observation protocols.

c. Participation in professional development: By May of 2015, 70%; by May of 2016, 75%; by May of 2017, at least 80% of treatment teachers will have participated in a minimum of 40 hours per year of professional development on instructional skills to incorporate inquiry-based arts instruction, motivate students, teach collaboratively and incorporate artistic expertise into curricular units as measured by project attendance records and PD outcome surveys.

d. Increased capacity to deliver curricular concepts: By May of 2015, 70%; by May of 2016, 75%; by May of 2017, at least 80% of treatment teachers will have increased their capacity to deliver curricular concepts across the arts and/or literacy as demonstrated through teacher surveys and unit/lesson artifacts.

Measureable assessments for Objective 4: Pre and post teacher unit/lesson plans and

instructional artifacts; teacher pre-post surveys and observation protocols indicating the degree to which teachers have applied the arts integration skills acquired in PD; records of coaches identifying the skills that teachers have demonstrated; attendance records and feedback, satisfaction, and outcome surveys administered at the conclusion of PD workshops; teacher surveys indicating how frequently teachers are employing arts integration curricular concepts; and unit/lesson artifacts (with a rubric to assess a sample of lessons developed by teachers after they have received initial training and initial art residency collaboration. Lessons will be selected from years 2, 3, and 4.)

(b) How the project will use information collected to monitor progress and to provide accountability information on the success of the project and plan to replicate effective strategies in other settings.

To provide regular performance feedback and accountability, and to monitor how well the project is meeting the project's intended outcomes, a variety of formative methods of analysis will be employed. The formative elements of the evaluation design will provide on-going feedback to project staff for timely and valid information on the management, implementation, and efficiency of the project. Systems for providing feedback and on-going assessment will be established as well as measures of on-going project progress. For example, the Project Manager and the School Steering Committees will receive monthly feedback from the Management Team and the External Evaluators to ensure that timely and valid data are provided for both formative and summative outcomes. Moreover, at the end of each PD session, the session leaders will meet with project staff to reflect upon and provide written data (including feedback or satisfaction questionnaires from teachers) on how effective those program components have been. The feedback surveys, using Likert scales and open-ended items, will include items on the way the PD sessions have been organized and how effectively they have been led.

Not only have benchmarks and timelines been set to annually gauge the extent to which activities are meeting project objectives, but a range of formative evaluation measures will be

employed to provide additional on-going and continuous feedback on the project's progress. The following formative assessment strategies will be used to collect formative assessment data described under sub-section 7 above and give performance feedback to the Project Management Team. The Management Team will convene monthly to review all of the above data to determine how efficiently the project is being managed and how those data can be shared with the school Steering Committees.

Information will be used in a variety of ways to manage progress towards the project's stated objectives. First, the Project Management Team will determine during each year the degree to which benchmarks and milestones have been met for the project's objectives. The quantitative and qualitative measures and results (see above for a listing of teacher and student pre-post measures and assessments), for both formative and yearly summative evaluations will be shared on a quarterly basis by the Project Management Team and the Steering Committees. Second, the Project Manager will meet with all project staff to share the formative and summative evaluation findings and, in consultation with the Project Management Team and the Steering Committees, will determine what modifications in program implementation should be made to improve project impact. Third, after these modifications have been implemented, the Project Management Team will determine, in collaboration with the External Evaluators, the degree of impact and efficacy of the changes. Fourth, this process will be repeated during each project year to ensure progress toward intended outcomes, thereby creating an on-going feedback loop for on-going assessment and continuous program progress and improvement.

Plan for Replication: Finally, for the replication of MSEED, project staff will document the detailed steps used to implement each strategy, e.g. manuals, unit and lesson plans, case studies, and video-tapes of project instruction, including how problems and challenges were overcome so that replicators can learn from and adopt the MSEED program model.

Competitive Preference Priority 1 – Building Evidence of Effectiveness

The MSEED project builds evidence of effectiveness in that this project is proposing an evaluation plan that produces valid, reliable evidence that contributes to identifying and improving practices, strategies, and policies that may contribute to improving both student and teacher outcomes. Implementing the program using multiple student cohorts allows for the evaluation plan to employ a multiple cohort within-student experimental design to study the impact of the program activities on students' outcome measures. These evaluation processes use a repeated measures design, which capitalizes on within subject comparisons (i.e. baseline measures to treatment measures within the same cohort). Using this approach, the External Evaluators will be able to examine the growth of students on outcome measures as they progress through the program, comparing changes in baseline measures to treatment measures and treatment 1 measures to treatment 2 measures to not only examine changes as students receive initial treatment, but to examine the impact of multiple treatments on the same students. The evaluation will also employ a pattern matching technique to examine student impact. All cohorts (1-4) will have a baseline and treatment 1 comparison, and cohorts 1 and 4 will have multiple baseline measures prior to treatment. For teachers, first year baseline and yearly thereafter pre-post assessments will be developed to assess the degree to which teachers have acquired and applied arts integration skills and concepts in their classroom. Previously established validity and reliability coefficients for standardized instruments used in the study will be reported for this project. It is expected that all standardized instruments and those developed by the project will possess validity coefficients of .70 or above and reliability coefficients of at least .80. Under the project's Evaluation Design (see Section 6 above for details), both student and teacher variables are measured multiple times both before and after treatment.

Competitive Preference Priority 2 – Strong or Moderate Evidence of Effectiveness

Contained in this sub-section on strong evidence for the MSEED model are summaries of research on the impact of arts integration on student achievement, as well as research on effective models of teacher professional development.

Strong and Moderate Evidence for the Curriculum Design: Four major carefully designed quasi-experimental studies provide strong evidence for the instructional design of MSEED, all of which have high internal and external validity. *(1) Different Ways of Knowing (DWoK) – DwoK* is a whole school reform model program from Jefferson County in Kentucky which integrates the arts into core curriculum (Munoz, Ross, & McDonald, 2007; Ross, Munoz, McDonald, & Goldfeder, 2007). This Jefferson County project provides strong evidence for the MSEED model in that it had a well-designed and well-implemented quasi-experimental design, with carefully-matched comparison groups (with high internal validity) and with high external validity because of its generalizability due to the inclusion of a wide range of socio-economic, ethnic, and geographic groups in the study groups. The goal of this Kentucky research project, which is very similar to the MSEED project, was to improve student achievement by providing instruction for students that focused on their *academic accomplishments in reading and math*, and developmental and social needs through integration of the visual, performing, literary, and media arts in order to (a) promote creative thinking and content acquisition across all disciplines; and (b) motivate students to think critically and gain deeper, long-lasting understandings.

In the quasi-experimental design study of the DWoK program, three middle schools were assigned to the treatment group and were matched with three comparison schools at both the school and student level in order to enhance the study's internal validity. The research results had favorable outcomes for the second year with effect sizes of +0.10 - +0.17 in standardized test scores compared to control schools. The results also show significant improvement for third-year achievement in treatment schools. The assessment instruments administered were the instruments used by the Kentucky state assessment system, the Comprehensive Test of Basic

Skills (CTBS), which is offered at the sixth grade level, and the Kentucky Core Content Test (KCCT), which is provided at the seventh and eighth grade levels. The results on standardized tests at the sixth grade level were statistically significant ($p < 0.05$), though less pronounced than the effect sizes on the seventh and eighth grade tests. As these results show, students participating in an arts-integrated whole school model outperformed students in control schools in all but one case, which is consistent with the expected outcomes of ***high engagement, increased achievement, meaningful learning, and connection of skills to cultural and real-world events***. Among the other results and conclusions of the study were improvements in teacher sharing and ***engagement in professional development sessions, positive impact on student sharing, engagement, and enthusiasm***.

(2) ***The Mississippi Whole Schools Initiative (WSI)*** -- WSI is an arts-integrated whole school reform model program created by the Mississippi Arts Commission (MAC) (Corbett et al., 2003). The goals of the WSI program, like MSEED, include: improving student achievement (including mathematics and reading) through infusion of the arts into the core curriculum, enriching students' lives by increasing their skills and knowledge in the arts disciplines, assisting the growth of educators through arts-based professional development, using the arts to increase parent and community involvement, and building a sustainable system for arts infusion.

This study also provides strong evidence for the MSEED model. In this quasi-experimental study of the WSI program, with carefully-matched comparison groups (with high internal validity) and with high external validity because of its generalizability (due to the inclusion of a wide range of students of ethnic origin and geographic origin in the program evaluation), evaluators spent four years documenting progress in the schools, while also collecting information from students, teachers, administrators, parents, artists, and community partners. The evaluation of the WSI program had three major conclusions: “(1) Students benefited when WSI was soundly implemented in a school; (2) Choices schools made about working toward implementation mattered; (3) There was and will continue to be variation in the

degree and quality of implementation. First, whether one looked at (a) test scores, (b) school progress on NCLB criteria, (c) the reactions of students, teachers or parents, or (d) the school environment, students won when their schools implemented the WSI approach.” The authors also concluded that “while the achievement test results were noteworthy, an equally important outcome was the added value of participation in WSI. Based on the direct testimony and survey responses of students, teachers and parents, the process yielded much benefit on its own. Students reported feeling better about themselves as learners and as individuals; they commented frequently on enjoying class and school more as a result. Teachers, especially those fortunate enough to attend the MAC Summer Institute, came back full of exciting ideas about how they might change their instruction to capture these powerful possibilities. Finally, the results from this research provide added evidence demonstrating how whole school/arts integration programs can have a major impact on students’ achievement.”

(3) ***The Oklahoma A+ Schools Program*** – The Oklahoma A+ Schools program features an arts integrated whole school reform model that combines interdisciplinary teaching with arts instruction (including drama, dance, music, visual arts, and literary arts) (Nelson, 2001; Hendricksen et al., 2010; Barry, 2010). This study also provides strong evidence for MSED because it employed a quasi-experimental design with carefully-matched comparison groups (with high internal validity) and with high external validity because of its generalizability due to the inclusion of diverse socio-economic and ethnic groups studied. The design of the program was based around a framework of eight essentials: Curriculum, Multiple Intelligences, Experiential Learning, Enriched Assessment, Arts, Collaboration, Infrastructure, and Climate. Among the successes of the project were the outcomes found in schools participating in the program, which include: ***higher student achievement, better attendance of students and teachers, decreased discipline problems, stronger parent and community involvement, and a more creative and joyful school climate.*** Schools participating in the Oklahoma A+ Schools program outperformed comparison schools both within their districts and as compared to

statewide scores each year from the 2002-2003 through the 2006-2007 academic years. Paired samples T-tests comparing the A+ schools with their district averages indicated that the differences were statistically significant ($p < .05$).

(4) *Learning Through the Arts (LTTA)*: This three-year quasi-experimental study performed in Canadian schools provides strong evidence for MSEED, since it used carefully matched comparison groups, providing for high internal validity, and had high external validity because of its generalizability to varying socio-economic groups of students. The study found that arts learning had a positive impact on students participating in the study, with statistically significant increases (at the .05 level) in geometry skills (effect size: .075) and in computation (effect size: .14) after three years of arts-integrated learning (Smithrim, 2005). This study concluded that students who participate in arts learning are more engaged in general, and that this engagement is correlated to *higher performance in mathematics* (Smithrim & Uptis, 2005).

Strong and Moderate Evidence for the Professional Development Design: The first set of strong evidence of support for the MSEED professional development (PD) design is provided by a major systematic and comprehensive review of research by Yoon et al. (2007), which analyzed over 1,300 studies on the impact of PD on student learning. Their review identified five experimental and four quasi-experimental studies, with both types using control groups with pre-and post-test designs that could evaluate impacts on student achievement. The five experimental studies had a high level of internal validity by employing random assignment as well as statistical controls with resulting causal conclusions, and high external validity by having studies representing a wide range of ethnic and geographical groups across the U.S. in rural, suburban, and large urban areas. Their review of these nine studies concluded that sustained and intensive PD was related to student achievement gains in the areas of literacy, science, and mathematics. Specifically, five of the six studies that offered substantial PD contact hours (ranging from 30 to 100 hours) spread out over 6 to 12 months showed a positive and statistically significant effect (at the .05 level) on student achievement gains. Across the nine

studies, the levels of PD offered — an average of 49 hours per year— boosted student achievement by approximately 21 percentile points. The authors of this review concluded that the effects of professional learning experiences that are intense and focused on the work of teaching provide causal evidence to support a new paradigm of PD, an approach which is replicated in the design of MSEED by having frequent, intensive classroom support over three years and opportunities for hands-on learning and reflection with colleagues.

Second, another experimental study with a high degree of internal validity (because of its random sampling, statistical controls, and causal conclusions) provides support for MSEED’s PD design. This study was conducted by Garet et al. (2010) to analyze an intensive PD program for 195 middle school math teachers in 77 schools across 12 urban districts. One hundred teachers across 40 schools in the treatment group received on average 45 hours of PD in the form of a 3-day summer institute followed by five seminars throughout the school year, and five 4-hour sessions of coaching. The study showed that the PD had a statistically different and positive impact on the frequency of teachers’ practice of eliciting student thinking

Third, in addition to the two strong experimental evidential supports described above, other well-designed and well-implemented quasi-experimental studies provide support for the design. Such studies are reviewed or presented in Corcoran, McVay and Riordan (2003), Desimone et al. (2002), Garet et al. (2001), Kennedy (1998), Supovitz, Mayer and Kahle (2000), and Supovitz and Turner (2000). These studies explain effective “structural features” (referring to the structure or design of PD activities, including the form of the activity, duration, and collective participation) and “core features” (referring to the content of PD activities, including content focus, active learning, and coherence) (Garet et al., 2001). *Effective forms of PD activity* include teacher study groups, peer observation, coaching and mentoring, as opposed to one-time workshops (Darling-Hammond & Richardson, 2009). Using such PD forms have supported teachers’ ability to sustain a hands-on inquiry-based approach up to three years after the conclusion of PD activities (Supovitz, Mayer & Kahle, 2000). The MSEED design includes all

these forms of PD activities. The importance of *duration* is shown in studies suggesting that changes in teacher educational approach, including adoption of inquiry-based practice, begin after 80 hours of PD (Supovitz & Turner, 2000; Corcoran, McVay, & Riordan, 2003). MSEED will provide for a total of 135 hours of PD for the same teachers over the course of four years. Several studies show that when PD focuses on how students learn subject material and provides teachers the opportunity to deepen their *content knowledge*, teachers are more likely to implement reform-based practices (Cohen & Hill, 2000). In one study, a 20% increase in the use of investigative teaching practices was associated with each standard deviation of increased content-based PD (Supovitz & Turner, 2000). When teachers' knowledge of subject matter is expanded, student achievement is positively affected (Kennedy, 1998). MSEED PD activities will focus on the specific content of what they are being asked to design and teach, namely arts integration. PD that includes opportunities for *active learning* has been shown to be more effective in changing teacher classroom practice (Desimone et al., 2002; Garet et al., 2001). MSEED's PD activities will allow teachers to learn in the arts themselves in an active way, with hands-on learning in dance, music, media arts, visual arts, and theatre. Co-teaching arts integrated units with teaching artists can also be viewed as a form of hands-on PD, to help teachers sustain arts integration practice after residencies end. When PD is perceived to be part of a *coherent program for teacher learning* – connected to teachers' goals, drawing on teachers' prior knowledge, aligned with state and national standards and assessments, and encouraging of communication with teachers with similar issues – teachers are more likely to change their practice (Desimone et al., 2002; Garet et al., 2001). The formation of the school Steering Committee will help to ensure that arts integrated curricula created through MSEED aligns with school-wide and district-wide initiatives. Thus MSEED incorporates all these core features of effective PD: PD will focus on teaching and learning in the arts disciplines, based on a cycle that includes teachers creating and implementing curriculum, aligned to state and national standards and embedded in the context of their actual teaching responsibilities.

Competitive Preference Priority 3 – Persistently Lowest-Achieving Schools

In the state of Illinois, the persistently lowest-achieving schools that are designated as Tier I and Tier II schools are all secondary schools. Because the absolute priority of the AEMDD grant program requires that the proposed project serves only elementary or middle school grades, it is impossible for applicants in the state of Illinois, such as Columbia College Chicago, to fulfill the requirements of Competitive Preference Priority 3. We hope that this can be taken into account in some way in the scoring of the proposals. At the same time, it should be pointed out that all proposed project schools are not making Annual Yearly Progress (AYP), which indicates that in this regard, these schools are among those that are lowest achieving.

Competitive Preference Priority 4 – Technology

Improving student achievement through technology: Business leaders and educators agree that reading, writing and mathematics are no longer sufficient workforce skills. Today's knowledge-based economy also requires skills in problem solving, analysis, and synthesis; strong communication and interpersonal skills; flexibility, creativity, and innovation; and teamwork and collaboration (Partnership for 21st Century Skills, 2008; National Center on Education and the Economy, 2006). Research has amply documented how arts education in general, and arts integration in particular, builds those skills and traits in students (Eisner, 2002; Burnaford, Aprill & Weiss, 2001; NGA Center for Best Practices, 2002). Arts integrated curriculum using technology and media arts such as film, video, radio, photography, and website design not only hones these skills particularly well, but cultivates media literacy, which is itself a 21st century skill (Partnership for 21st Century Skills, 2009). Media literacy, commonly defined as the ability to access, analyze, critically evaluate and produce media in a variety of forms, includes the ability to both analyze and create media. In a rapidly changing technological environment where the variety of media is proliferating and the ability to create media is increasingly more accessible, educators are recognizing the need to incorporate media literacy

into all students' education (Schwarz & Brown, 2005). MSEED's focus on arts integration including media arts thus provides a comprehensive approach to improving student achievement through the use of high quality digital tools and materials.

Improving teacher effectiveness through technology: In MSEED, teachers will receive comprehensive training to learn to use digital tools themselves during professional development: hardware such as digital cameras, video cameras, audio recording equipment, sound and video editing equipment, and iPads, and software in graphic design, photo editing, video editing, sound editing, web design, blogging, and presentation. Increased abilities in these areas of technology will allow them to participate more fully in co-creating and co-teaching media-arts integrated curriculum with teaching artists. In addition, professional development sessions will help teachers to explore the use of digital media to assess student learning in all art forms, not only media arts: for example, effective use of photography to assess student work in visual art, and videorecording of live student performances in dance, theatre, and music for assessment purposes. Teachers will also be asked to apply these skills in order to document their classroom teaching and student work through photo, video, and audio, and then share this documentation with their peers and the public through blogs for use in their Learning Communities. Through these strategies, they will become more familiar and comfortable with using technology to not only directly enhance their instruction in the classroom but also to improve planning, assessment, collaboration, reflection, and other aspects of teaching.