

EVERYDAY ARTS FOR SPECIAL EDUCATION

A Multidisciplinary Approach for Special Education Teachers and Students

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COMPETITIVE PREFERENCE PRIORITY 7:

Innovations To Address the Unique Learning Needs of Students With Disabilities and Limited English Proficient Students

District 75 is New York City's special education district. We serve 23,000 students from across the city's five boroughs who have severe cognitive, emotional, and physical challenges, ages 4 to 21. These students' disabilities are deemed too severe for them to be served within the general education system; they require highly specialized educational programs and educational support systems. Disabilities include autism spectrum disorders, cognitive disabilities, emotional disturbance, severe learning disabilities, and multiple handicaps (physical and cognitive). Approximately 60% of District 75's students are assessed based on alternate academic achievement standards.

The proposed project, *Everyday Arts for Special Education* (EASE), is designed to improve the effectiveness of special education teachers in District 75. Through integrated, arts-based instruction, EASE activities will improve student achievement in the areas of communication, socialization, academic learning and arts proficiency. A series of professional development workshops and extensive in-school support will provide participating teachers with skills and strategies across multiple arts disciplines (music, dance, visual arts and theater) to help students achieve their Individualized Education Program (IEP) goals.

We wish to initiate a systemic change in District 75's classroom environments, in which, through arts-based instruction, students with severe challenges are provided multiple entry points to learning. In previous research, we have found this approach to be very effective in helping students achieve IEP goals, and believe this project will lead to improved behavioral and academic outcomes. This will help close the achievement gap between special education and general education students, and eventually increase college- and career-readiness for those students taking standard assessment.

A. NEED FOR PROJECT AND QUALITY OF THE PROJECT DESIGN

A1) An Exceptional Approach to a Largely Unmet Need

Arts Instruction Improves Learning: The arts are an important part of any child's education, but for students with severe disabilities, the need for arts-based instruction is imperative. When taught in more conventional ways, most of District 75's students struggle to learn; by providing multiple entry points for learning, as we do when using arts-based instruction, we ensure greater opportunity for student success.

In our groundbreaking professional development partnership with the Manhattan New Music Project, *Communication and Socialization through the Arts* (CASTA; funded under CFDA 84.351C), we see compelling evidence that integrated arts instruction can help address core communication and socialization deficits in students on the autism spectrum. We expect to see similar results when similar instruction is differentiated for different special needs populations. For most special needs students, communication and socialization *are* major curriculum areas, and are represented in each student's Individualized Education Program (IEP) goals; improvement in these areas constitutes improved student achievement in and of itself. Moreover, lack of mastery in these areas has a negative effect on all areas of learning; simply put, it is difficult to teach a child his or her letters when the child cannot communicate with or attend to teachers and peers. Improving communication and socialization skills through targeted arts activities allows better opportunities for teaching other curricula. Core academic areas can be taught in more engaging ways through arts integration; using arts-based strategies to teach math or reading provides multiple entry points for the learner.

Arts Requirements Are Not Being Met: The New York State Education Department's Instructional Requirements for the Arts mandate arts instruction in dance, music, theater, and visual arts for all grades. However, according to the *2008-2009 Annual Arts in Schools Report* (published by the New York City Department of Education), fewer than 28% of District 75

schools are in compliance with these mandates.¹

Population of Students Served: Of District 75's 23,000 students, 71% are eligible for Title I support, 86% are from minority populations, 15% are English Language Learners, and 60% are assessed based on alternate academic achievement standards. Students' disabilities include autism spectrum disorders, cognitive disabilities, emotional disturbance, severe learning disabilities, and multiple handicaps (physical and cognitive). These students require highly specialized educational programs and educational support systems to assure that each student reaches his or her potential.

Need for Teacher Training: Due to a chronic shortage, District 75 schools are constantly challenged to recruit and retain effective teachers. Many new teacher recruits are Teaching Fellows who are still working towards their certification. A large number leave their positions within the first five years.² In addressing the needs of special education students, we have chosen to include both arts teachers and classroom teachers in the *Everyday Arts for Special Education* (EASE) program.

Although District 75's classroom teachers are expected to provide most or all of students' mandated arts instruction across multiple arts disciplines, the vast majority receives no training in the arts whatsoever. Through the EASE program, classroom teachers will explore a wide range of such activities across all arts disciplines, thus increasing their ability to create differentiated plans for achieving each student's IEP goals.

District 75's arts teachers are knowledgeable in their content areas, but many have little or no training in working with special needs populations. Through the EASE program, arts teachers will learn to adapt and implement differentiated arts activities based on students' specific IEP goals. For those who lack training in working with special needs populations, the EASE program will provide a wealth of strategies and activities to aid in developing teacher effectiveness.

A2) Goals, Objectives, and Strategy

Everyday Arts for Special Education is a professional development project designed to improve student achievement in the areas of communication, socialization, academic learning, and arts proficiency through integrated, arts-based approaches. Much of the project activity and research will focus on ten District 75 treatment schools, and we will also engage in training and dissemination to reach teachers and administrators nationwide.

The Ten Treatment Schools: We will train classroom teachers, arts specialists, and administrators from ten District 75 schools. Teachers and administrators will take part in intensive professional development activities led by Manhattan New Music Project (MNMP) teaching artists. Through workshops and school-based modeling, teachers will learn differentiated arts-based strategies designed to meet the communication, socialization, academic, and arts goals of each student's Individualized Education Program (IEP) across multiple arts disciplines.

Each project year, a new cohort of 60 teachers will be added to the EASE program, while ongoing training and support will be provided for previous years' participants. The level of direct teaching artist support will be reduced in each subsequent year of a teacher's participation, as he or she becomes more capable of implementing program without assistance. Upon reaching their fourth year, the most effective teachers will be identified and trained to become mentor teachers, able to disseminate the EASE program to others; they will assist teaching artists in presenting training workshops to their peers.

The charts on the following page describe the levels of support and project activities for each year's cohort of teachers, and the nature of those activities.

EASE Teacher Cohorts: Levels of Program Support Over Five-Year Span

	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Cohort 5
YEAR 1	Beginner Level support				
YEAR 2	Intermediate Level support	Beginner Level support			
YEAR 3	Advanced Level support	Intermediate Level support	Beginner Level support		
YEAR 4	Selected teachers become mentors	Advanced Level support	Intermediate Level support	Beginner Level support	
YEAR 5	Selected teachers become mentors	Selected teachers become mentors	Advanced Level support	Intermediate Level support	Beginner Level support

Activities for Teachers at Different Program Levels

	General Description	PD Workshops	Collaborative Classroom Modeling	On-Site PD
Beginner Level	Teachers learn and implement EASE with extensive support from teaching artists.	4 full-day workshops per teacher	20 in-class teaching artist visits per class	20 forty-five minute sessions per teacher
Intermediate Level	Teachers implement EASE with new students, taking more responsibility from teaching artists	2 full-day workshops per teacher	16 in-class teaching artist visits per class	16 forty-five minute sessions per teacher
Advanced Level	Teachers implement EASE with new students, requiring minimal support from teaching artists	1 full-day workshop per teacher	8 in-class teaching artist visits per class	8 forty-five minute sessions per teacher

Description of Treatment School Activities

Activity	Description
Professional Development Workshops	Participating teachers and administrators will meet with MNMP teaching artists for full-day workshops. Workshops will provide differentiated arts-based strategies to improve students' communication, socialization, academic, and arts skills, and will include both instruction and reflective practice.
Collaborative Classroom Modeling	MNMP teaching artists will collaborate with teachers in the classroom to implement curricula learned in the professional development workshops, employing a strategy of collaborative classroom modeling, to differentiate instruction for all age and ability levels.
On-Site PD	Teaching artists will conduct 45-minute on-site professional development sessions with participating teachers, focused on differentiation and documentation of best practices.
Ongoing Curriculum Development	In Year 1, teaching artists will create an EASE Curriculum Guide. Throughout each project year, participants will document best practices based on classroom results; results will be reviewed by the Curriculum Committee at the end of each project year, and incorporated into the Curriculum Guide. By the project's conclusion, we will have a final EASE Curriculum Guide, differentiated for different populations, and based on best practices.
Training of Mentor Teachers	In Year 4, ten effective teachers from Cohort 1 will be identified, and trained to become EASE mentors. Mentor teachers will assist in leading PD workshops for incoming teachers. In Year 5, we will train 20 more mentor teachers from both Cohorts 1 and 2.

Reaching More Teachers, Administrators, and Students: In addition to activities undertaken with teachers, administrators, and students in the ten treatment schools, District 75 and MNMP will broaden the reach of the EASE program by offering training to other teachers within District 75, and to teachers and administrators nationally. We will also disseminate EASE curriculum and documentation online, and present evaluation results and methods at local and national education conferences.

Additional Training Activities

Activity	Who Attends	Description	When
District-Wide Workshops	Any District 75 teacher (excluding those in treatment schools)	Three-day EASE workshop series offered 2-4 times per year as part of regular District 75 professional development efforts.	Years 1-5
Summer Seminars	<ul style="list-style-type: none"> • Special education teachers from New York's community schools • Students in special education programs in area colleges • Special education teachers from around the country 	Five-day summer EASE training seminars. We will pursue additional funding to subsidize their travel and accommodation costs of teachers outside of the New York City region.	Years 3-5
Administrators' Workshops	Special education administrators from New York and around the country	Full-day workshops presenting EASE methods and results. Our goal is to partner with other schools and school systems to disseminate the EASE program nationally.	Years 3-5

Dissemination Activities

Activity	Description
Online Dissemination	<ul style="list-style-type: none"> • EASE Curriculum Guide: A detailed curriculum guide, outlining EASE strategies and activities will be made available on a dedicated EASE website. • Online Video Demonstration Guide: A "how-to" video that will work in tandem with the EASE Curriculum Guide. • Video Documentary: On-line video for the purposes of general introduction to the goals and methodologies of the EASE program. • Achievement Reporting and Innovation System (ARIS): The New York City Department of Education's online community; we will use throughout the funded period and beyond. ARIS provides New York City educators with a secure online platform for exploring data they can use to communicate with each other to improve student achievement. • Online Community Linked with ARIS: We will create an EASE online community space for NYC teachers on ARIS to share ideas with non-NYCDOE educators.
Local and National Conferences	Evaluation results and methods will be submitted for presentation at local education conferences, such as Face-to-Face and Common Ground. We will also submit to national conferences such as the American Evaluation Association, the American Educational Research Association, ASCD, and Very Special Arts Research Symposium.

Teaching Artist Training: Although MNMP has many teaching artists experienced in working with special needs populations, these artists are always in high demand; there is a great need for special education training for New York City teaching artists. In the EASE program, we will pair Assistant Teaching Artists, who have little or no District 75 experience, with Master Teaching Artists for in-school work. Assistant TAs will also attend professional development workshops and curriculum development meetings. Additionally, Master and Assistant TAs will participate in Teaching Artist Reflection Seminars, where they will critique video footage of themselves and others from in-class settings, and work to improve teaching practices through discussion and role-play.

PROJECT GOALS AND OBJECTIVES: *Everyday Arts for Special Education* is intended to improve the effectiveness of special education teachers through training in the use of arts-based teaching strategies. We are specifically targeting improvements in students' communication and socialization skills, and expect these improvements to lead to academic gains in other content areas. We also expect to see a rise in students' arts proficiency. As a consequence of the program, we look for the following improvements in teaching and student achievement:

Teacher-Oriented Goals and Objectives	
Goal 1: Increase teachers' ability to effectively apply integrated, multi-disciplinary arts-based strategies for students with special needs.	<u>Objective 1a:</u> <i>By the end of each project year, 75% of participating teachers will demonstrate a high degree of competence in effectively implementing arts-based strategies to address the communication and socialization challenges of students with special needs.</i>
	<u>Objective 1b:</u> <i>By the end of each project year, 75% of participating teachers will demonstrate a high degree of competence in effectively implementing arts-based integrated instruction to improve student achievement in other academic areas.</i>
	<u>Objective 1c:</u> <i>By the end of each project year, at least 75% of participating teachers will demonstrate the ability to serve as mentors to their peers by sharing techniques and skills acquired through a variety of professional development activities.</i>

Student-Oriented Goals and Objectives	
Goal 2: Improve students' communication and socialization skills through integrated, multidisciplinary arts activities.	<u>Objective 2a:</u> By the end of each project year, at least 75% of participating students will have mastered communication goals indicated in their Individualized Education Program.
	<u>Objective 2b:</u> By the end of each project year, at least 75% of participating students will have mastered socialization goals indicated in their Individualized Education Program.
	<u>Objective 2c:</u> By the end of each project year, at least 75% of participating students will demonstrate increased motivation, attention span, self-confidence and positive risk-taking, and general interest in their school progress.
Goal 3: Improve students' arts proficiency through multi-disciplinary arts activities.	<u>Objective 3a:</u> By the end of each project year, at least 75% of participating students will improve in arts proficiency as measured by State Arts Standards or State Alternate Performance Indicators.
Goal 4: Improve students' academic proficiency through integrated, multidisciplinary arts activities.	<u>Objective 4a:</u> By the end of each project year, at least 75% of participating students will have mastered selected academic goals indicated in their Individualized Education Program.

B. STRENGTH OF RESEARCH, SIGNIFICANCE OF EFFECT, AND MAGNITUDE OF EFFECT

B1) Research-Based Findings or Reasonable Hypotheses that Support the Proposed Project

Arts-based instruction has been shown to be highly effective for reaching and teaching special education students. Rhythmic activities and movement to music can help address “perceptual-motor disturbances” that might lead to avoidance of sensory experience and delayed gross and fine motor development.³ Arts learning can develop children’s motor skills, while helping them learn to focus and engage with the external environment.⁴ Integrated music instruction provides a low-risk classroom environment, and is effective for establishing classroom routines and teaching social skills to special education students.⁵ Imaginative play and creating art helps develop symbolic and representational thought in autistic children⁶ that is integral to developing communication skills.⁷ Temple Grandin, describing her “life with autism” identified arts-related dispositions common among autistic individuals. These include “visual thinkers” (individuals who conceive of ideas in “photographically specific images”), and “music and math

thinkers” (individuals who think in patterns).⁸ The arts engage these students and help teachers provide effective differentiated instruction addressing students’ individual needs.

District 75 and MNMP have collaborated on three professional development projects funded by the U.S. Department of Education (CFDA 84.351C), each with a major research and evaluation component. In *Creative Music Educators* (2002-05), 85% of participating teachers learned and applied new instructional techniques for special education students. They gained more positive perspectives on their students’ abilities, thereby developing higher expectations for their achievement. Students showed gains in self-confidence (83%) and attention span (84%).⁹ The *Creative and Integrative Arts Educators* program (2005–08) developed teachers’ ability to implement high-quality arts integrated instruction for children with learning disabilities. Students demonstrated increased motivation and a decrease in challenging or disruptive behaviors.¹⁰

B2) The Proposed Project Has Been Attempted Previously, With Promising Results

Data indicate that District 75’s current collaboration with MNMP, *Communication and Socialization through the Arts* (CASTA; 2008-11), has been highly successful at improving communication and socialization skills of students with autism. CASTA provides professional development for arts and classroom teachers of students on the autism spectrum. An assessment system was developed for the program, based upon project objectives and systematic analysis of qualitative data. Each week, participating teachers identify and apply an arts-based teaching strategy learned through CASTA that addresses a specific Individual Education Plan (IEP) goal for each of their students. Teachers rate the students’ progress every week, submitting the data via the Internet for the evaluator’s database. Aggregate results of the first year assessment indicate 93% of students improved communication skills and 95% improved socialization skills.¹¹ The assessment system is ongoing in the current school year, with 1,020 individual assessments submitted as of April 2010. An interim analysis of assessments indicates strong improvement in following

directions (87% of students), time on task (83%), self-esteem (86%), engagement (87%), and arts proficiency (89%), in addition to improvement in communication (83%) and socialization (84%) skills. Computer-assisted qualitative analysis of observational and interview data indicate that students are better able to work collaboratively, show increased motivation, and challenge themselves to perform more difficult tasks. The arts activities are developing students' ability to focus and stay on task. Students gained confidence as they mastered difficult arts-related tasks.

B3) Improving Student Achievement or Student Growth

These are promising findings that merit further study. A larger student sample will enable the project evaluator to determine: (1) if there is similar student growth for students with a broader range of disabilities, (2) whether there are important differences in effects between students with different disabilities, and at different points on the autism spectrum, (3) the degree to which special education teachers can effectively incorporate arts-based teaching strategies, and the amount and characteristics of professional development that are necessary for student progress. Based on the results of prior and ongoing CASTA research, we expect that at least 75% of EASE special education students will show improvement in communication and socialization skills, and similar improvement in engagement, motivation, attention span and arts proficiency.

C. EXPERIENCE OF THE ELIGIBLE APPLICANT

C1) Past Performance In Implementing Projects of Similar Size and Scope

District 75 – Organizational Strengths: It is the mission of District 75 to provide educational, vocational and behavioral programs for students with special needs in New York City. In order for our students to become actively engaged, life-long learners, we believe that our teachers require and deserve access to the most powerful instructional practices through ongoing, collaborative and growth-oriented professional development. With over 4,000 teachers in 56 schools located at more than 310 sites across New York City, District 75 is well accustomed to successfully implementing large-scale projects designed to improve teaching and learning.

We wish to build upon our previous, very successful collaborations with the Manhattan New Music Project (MNMP). MNMP is one of the few arts-in-education organizations in New York City to specialize in working with special needs populations, and has partnered with District 75 since 2002 on both small and large-scale professional development and in-class programs. Members of the management team for the proposed project have functioned in similar capacities on other major District 75/MNMP collaborations, which are detailed below.

Communication and Socialization through the Arts (2008-11): Currently in its second of three years, *Communication and Socialization through the Arts*, funded under CFDA 84.351C, seeks to improve communication and socialization deficits of students with autism spectrum disorder. District 75 and MNMP have collaboratively developed multidisciplinary arts curricula through which these deficits can be addressed. Over its three-year duration, the project will serve 110 teachers and 3,000 students in 36 schools. The project is running on budget.

Creative and Integrative Arts Educators (2005-08): This three-year professional development program, funded under CFDA 84.351C, integrated multidisciplinary arts activities with classroom learning through students' creation of a musical theater production. Classroom teachers and arts specialists learned to guide the students through scriptwriting, songwriting, set and costume design, and performance of an original production based on classroom curriculum. The project served 120 teachers and 4,430 students in 20 schools and was implemented on budget.

Creative Music Educators (2002-05): Funded under CFDA 84.351C, *Creative Music Educators* was a three-year professional development program designed to improve learning outcomes in District 75's music classrooms. The project served 52 teachers and 4,550 students in 31 schools, and post-project dissemination trained dozens more teachers. It was implemented on budget.

Manhattan New Music Project -- Organizational Strengths: MNMP is uniquely qualified to partner with District 75 on the EASE project for two primary reasons: its admin-

istrative staff and teaching artists have the requisite experience both to design programs for diverse special education populations, and to effectively implement large-scale programs. EASE's Curriculum Designer has served in a similar capacity in all of the major District 75/MNMP collaborations listed above, as well as other large-scale MNMP programs: *Blank Page to Stage* (2008-12) and *Setting the Stage for Success* (2006-10), both of which are funded under CFDA 84.351D and serve special education populations and English Language Learners in Brooklyn and Staten Island. In addition, MNMP brings a huge resource of experience in its teaching artist roster: 70% of MNMP's teaching artists are experienced in working with special education, and 65% of these artists have worked with District 75's most severely disabled populations.

C2) (a)(i) Applicant Has Significantly Increased Student Achievement

District 75's students meet the criteria described in section 1111(b)(2) of the ESEA; all have disabilities, 71% are eligible for Title I support, 86% are from minority populations, and 15% are English Language Learners. For this application, we will present data from District 75 initiatives most germane to the proposed project: its three large-scale collaborations with MNMP described above in Question C1. CME¹² and CIAE¹³ are three-year project totals; CASTA is based on an interim analysis as of April 2010.¹⁴ Cumulatively, these programs affected over 10,000 students. Student improvement categories below are representative of typical IEP goals.

DISTRICT 75 / MNMP COLLABORATIONS – Resulting Student Data

District 75: Student Improvements				
PARTICIPATING STUDENTS WHO INCREASED:	Target	Actual: CIAE	Actual: CME	Actual: CASTA
Arts proficiency	75%	83%	100%	89%
Attention span/time on task	75%	81%	82%	83%
Motivation and engagement	75%	91%	96%	87%
Interest in participating in school activities	75%	82%	76%	n/a
Self-confidence/self-esteem	75%	96%	88%	86%
Expressive/communication skills	75%	82%	83%	83%
Socialization skills	75%	n/a	n/a	84%
Literacy skills	75%	91%	n/a	n/a

C2) (a)(ii) Applicant Has Made Significant Improvements in Other Areas

District 75 recognizes the importance of the arts in effectively teaching our children. We also recognize that the majority of our schools are not meeting their state-mandated arts requirements,¹⁵ and that the fulfillment of these requirements is often left up to classroom teachers¹⁶ who have little or no arts training. In our most recent professional development collaborations with MNMP, therefore, we have focused on training teachers to use the arts in their classrooms, in ways that address students' learning goals and integrate into their academic curricula. The CASTA¹⁷ and CIAE¹⁸ programs have trained almost 200 teachers, with outstanding results, indicated below. The data suggest that with proper training, teachers can teach, and teach through, the arts, thus fulfilling arts mandates. Coupled with the increased student achievement demonstrated by these projects above, we see strong evidence of increased teacher effectiveness.

District 75: Significant Teacher Improvements		
CASTA (Year 1) -- TEACHERS WHO DEMONSTRATED:	Target	Actual
• A shared foundation for multidisciplinary arts pedagogy in their schools	75%	93%
• A high degree of competence in developing arts-based strategies to address the communication and socialization challenges of students with autism	75%	95%
• The ability to serve as mentors to their peers by sharing techniques and skills acquired through a variety of professional development activities	75%	85%
CIAE (3-year project total) -- TEACHERS WHO:	Target	Actual
• Developed their ability at using arts integrated approaches,	75%	95%
• Developing their ability at addressing New York State standards and the NYC Blueprint for the Arts through an integrated curriculum	75%	75%
• Learned and applied new teaching techniques that they will continue to use	75%	95%
• Learned to make sustained and rich classroom connections between the arts and academic subjects	75%	91%

D. QUALITY OF THE PROJECT EVALUATION

D1) Methods of Evaluation Are Appropriate to the Size and Scope of Project

The evaluation will employ a quasi-experimental design, with an additional, systematic qualitative component. A pure experimental design is not feasible, because: (1) It is not possible to randomly assign children to control and experimental groups within the operating schools, as the program will work with intact classrooms that were constructed to meet the needs of the

students and schools; (2) A randomly-selected larger unit of analysis (i.e., classrooms or schools) would be inappropriate for assessing student achievement and would not yield sufficient n for significance testing; (3) The New York City Department of Education (NYCDOE) has been, and is currently, engaged in a long-term effort to systemically re-institutionalize arts education through several initiatives (including the *Blueprint for Teaching and Learning in the Arts*). Therefore some teachers and students may have already benefited from arts integrated instruction; (4) The proposed project is seeking a systemic effect on participating schools' teachers and students and, therefore, the project will not seek to limit arts opportunities for currently non-participating children.

Performance data will be obtained at the outset of the project for participating students. These data will include the New York State Alternative Assessment (NYSAA), measures of teachers' ability to integrate the arts, and demographic data. NYCDOE will supply a randomly chosen matched, equivalent non-treatment sample of students from the overall District 75 database. Throughout the course of the project, the equivalence of means will be tested (t -test) for the overall groups and various subgroups (schools, grades, socioeconomic status, English proficiency, disabilities, etc.) to ensure that the comparison groups maintain similar characteristics.

The evaluation will investigate the effectiveness of the program at achieving its four core goals:

Goal 1: Increase teachers' ability to effectively apply integrated, multidisciplinary arts-based strategies for students with special needs.

Goal 2: Improve students' communication and socialization skills through integrated, multidisciplinary arts activities.

Goal 3: Improve students' arts proficiency through multi-disciplinary arts activities.

Goal 4: Improve students' academic proficiency through integrated, multi-disciplinary arts activities.

Evaluation Design and Analysis: Variables within three broad groups (defined by the project goals) will be measured: (1) program implementation variables (Goal 1), measuring the degree and quality of teacher/artist participation, the success of collaboration and implementation, and the quality and effectiveness of the curriculum materials; (2) teachers' professional development variables (Goal 1), measuring knowledge and application of arts integrated instruction, the ability of teachers to sustain deep and meaningful connections between the arts and academic curriculum, the ability of teachers to employ arts activities to help students meet IEP goals in communication and socialization, and the effectiveness of professional development components (workshops, collaborative classroom modeling, and on-site professional development); and (3) student development variables (Goals 2, 3 and 4), measuring academic achievement, arts proficiency, communication goals, socialization goals, motivation, self-confidence, attention span and school engagement.

Analysis will seek to determine if, and how, the first two variable groups described above influence changes in student development. Several analyses will investigate causal relationships among implementation, professional development, and student variables: (1) academic achievement scores will be compared between the matched treatment and non-treatment groups; (2) participants (teachers and students) will be ranked according to their degree of exposure (professional development, classes, etc.) and the quality of their participation and assigned to high and low groups for additional comparison; (3) regression analysis will determine the best predictors (among implementation and teachers' professional development variables) for changes in student achievement, arts proficiency, communication/socialization skills, and other areas of student development; and (4) systematic qualitative analysis using NVivo software will seek to triangulate data from

different types of participants and sites, identifying common or contradictory patterns, to help refine and validate an appropriate causal model.¹ Analysis will control for socioeconomic status.

Control Groups: Three sets of control groups will be used for the quasi-experimental analysis. **Treatment and Control One:** NYSA scores and student assessment data will be gathered for all students in the participating schools each year. The initial treatment group's (Cohort 1) scores will be compared with an equivalent random sample of non-participating students. As students are added to the program each year (through the addition of new cohorts of teachers), we will examine differences in scores between students who have had varying degrees of participation in the program (1 through 5 years of participation, compared to no participation). If the program is effective, then the effects should be stronger with longer participation. We will also examine the effectiveness of teacher instruction by comparing data from the three levels of cohort experience (Beginner, Intermediate and Advanced Levels) to determine if more EASE experience leads to more effective teaching and higher student scores. **Treatment and Control Two:** We will compare scores of participating students (treatment) with a randomly selected equivalent sample from throughout District 75 (control). **Treatment and Control Three:** A within-sample analysis will compare scores/ratings of the most successful classrooms with those of the least successful classrooms. Classrooms will be assigned to high and low groups based upon (1) the success of program implementation at the classroom level, (2) the ability of teachers to employ techniques learned through professional development, and (3) the degree of successful collaboration between artists and teachers. We will compare our rankings with the cohort levels that were determined by amount of experience with the program. **Treatment and Control Four:** We will compare scores from the ten treatment schools with scores from schools that participate only in Summer Seminars and District-Wide Workshops.

¹ Qualitative data will also be essential for ongoing formative evaluation.

Instrumentation: Instrumentation will include: (1) NY State Alternate Performance Indicators, (2) the student assessment system described in Section B (yielding weekly quantitative and qualitative data on each student in progress towards IEP goals, communication and socialization skills, arts proficiency, ability to follow directions, and time on task), (3) teacher surveys measuring effectiveness of collaboration and professional development, (4) site observations, (5) structured interviews of teachers and artists, and (6) content analysis of student work. During the first year of the project, teachers and principals will collaborate in developing indicators for the instruments and provide feedback as they are piloted.

D2) Methods of Evaluation Will Provide High-Quality Implementation Data and Performance Feedback, and Permit Periodic Assessment of Progress

Data collection will be continuous throughout the project. Teachers will use the online student assessment system described in Section B for at least 30 weeks per school year. This will yield a large quantity of detailed quantitative data on participating students (60 teachers per cohort x 30 weeks x 6 students = 10,800 student assessments per cohort per year. Therefore, by the end of the project, we anticipate 150,000 completed assessments.) The evaluation team will interview at least 40 teachers and artists each year. Surveys will be conducted twice a year, in January and June. The online student assessment system will be used for formative assessment, to give feedback to teachers and program administrators about the effectiveness of the program. The external evaluator will work closely with District 75/MNMP and participating teachers to ensure that the formative assessment process is effective and helping teachers improve instruction.

The external evaluator and his team will meet monthly with District 75/MNMP and will confer more frequently through phone, email and discussion during site visits. Dr. Horowitz (Project Evaluator) will work closely with participating schools, NYCDOE and District 75/MNMP to provide continual and timely formative program evaluation data to monitor progress towards meeting milestones and objectives.

D3) Evaluation Will Provide Sufficient Information to Facilitate Further Development, Replication, or Testing in Other Settings

The evaluation data will be rich and detailed, and will provide guidance for others to replicate or otherwise develop the program. Dr. Horowitz will prepare yearly reports, regular interim reports, and participate in District 75/MNMP web-based dissemination strategies. Evaluation reporting will provide detailed description of the program settings, participants and methods, as well as results of the quasi-experimental and qualitative analysis. District 75/MNMP and Dr. Horowitz will seek to inform the special education, general education, and arts partnership communities about the evaluation findings so that others may continue to develop, or replicate, the program. Dr. Horowitz will present the research at national conferences, such as ASCD, Very Special Arts Research Symposium, American Educational Research Association, and American Evaluation Association.

D4) Project Plan Includes Sufficient Resources to Carry Out Project Evaluation Effectively

Program evaluation will be directed by Dr. Rob Horowitz, Associate Director of the Center for Arts Education Research at Teachers College, Columbia University. Dr. Horowitz will direct a team of senior graduate and post-doctorate researchers drawn from each of the arts disciplines with broad experience in research, assessment, evaluation and professional development. Evaluation staff committed to the project include Elizabeth Beaubrun (Doctoral Candidate, Columbia University), Dan Chiel (B.A., Harvard University), Amy Kleiman, (M.A., Columbia University), Dr. Rekha Rajan (Ed.D., Columbia University), and Dr. Dan Serig (Massachusetts College of Art, Ed.D. Columbia University). This evaluation team has worked together with Dr. Horowitz on over 30 research and evaluation projects. Dr. Horowitz has directed over 50 arts-based program evaluations over the last ten years, as well as basic research on the effects of the arts on human development. Dr. Horowitz and his team have evaluated District 75/MNMP programs for over eight years, including five evaluations of U.S. Department

of Education funded projects. Dr. Horowitz and his team have well-established relationships with District 75/MNMP staff, administrators, teachers, artists and the NYCDOE; they will also draw on the support and expertise of the Center for Arts Education Research at Teachers College, Columbia University, which can provide additional staff as needed, and consultation with experts in related arts, education and research fields.

E. STRATEGY AND CAPACITY TO FURTHER DEVELOP AND BRING TO SCALE

E1) Number of Students to be Reached by the Proposed Project

Everyday Art for Special Education will reach students in two ways: through a combination of professional development and direct in-class support in treatment schools, and through professional development only. The chart below shows yearly, and project, student totals.¹⁹

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	PROJECT TOTAL
Students served: directly	540	1,080	1,620	1,620	1,620	6,480
Students served: professional development only	3,510	5,430	7,465	8,685	9,225	34,315
Total Students Served	4,050	6,510	9,085	10,305	10,845	40,795

E2) Capacity of Applicant and Partners to Develop Program and Bring to Scale

By the end of the five-year grant project, District 75 will have 30 mentor teachers, and MNMP will have over 20 Master Teaching Artists experienced in providing EASE training; these experts will be able to train others both within New York City and beyond. It will be relatively easy to work within the New York City Department of Education's existing professional development infrastructure to offer EASE training to special education teachers in both District 75 and community schools. As a leader in providing professional development for special education educators, MNMP is well-positioned to disseminate the EASE program regionally and nationally, and will pursue funding to continue to offer EASE training outside of New York City.

Private Sector Investment: In 2002 Mayor Michael R. Bloomberg and Chancellor Joel I. Klein established public-private partnerships as a critical means of supporting public education

reform. The Fund for Public Schools is the primary vehicle for advancing this effort. Working in collaboration with the NYCDOE's Office of Strategic Partnerships, The Fund attracts private investment for system-wide reforms and initiatives that support individual schools. Since 2002, The Fund has raised more than \$230 million, including a \$17.9 million gift from the GE Foundation, the largest single corporate contribution to New York City public schools²⁰. District 75 plans to approach The Fund for assistance in developing private partnerships and bringing EASE to scale.

E3) The Feasibility of Successful Replication in a Variety of Settings

Multiple Settings and Populations: Because EASE will be implemented with diverse special needs populations, instructional differentiation is inherent to the program design. The EASE program would be helpful in any school, home, hospital, or therapeutic setting with special needs students. In addition to special needs populations, however, we believe these approaches will be effective with ESL and general education teachers seeking to improve students' communication, socialization, academic, and arts skills, particularly in the younger grades.

Available Resources: A written EASE Curriculum Guide will be available online, along with an accompanying Video Demonstration Guide.

Ease of Use: Because EASE trains both arts specialists and classroom teachers, it is imperative that both arts specialists and arts "amateurs" can master the arts activities presented. As evidenced by previous projects' data on increased teacher proficiency in arts instruction, District 75 and MNMP have a good track record of providing such user-friendly training; for example, in anonymous year-end surveys, participating teachers said the following about the CASTA program:

- When my coworker came to me and said "Let's do this workshop on the arts," I was definitely hesitant. I do not consider my strengths to be in the arts ... But I was game, so I signed up! Best decision ever! Through the CASTA workshops, I was able to get past my own insecurities and teach through the arts. It was fun! But more importantly, the children were involved and engaged

in the activities – even those children who typically do not participate. I am still amazed at the effect CASTA has had on my students.

- I've been teaching for 18 years and never have I been to a workshop like [CASTA] before. This is the first time that I got something practical out of [a workshop] to use with my class.

E4) Cost of Project, Cost Per Student, and Cost to Reach More Students

The total federal request for *Everyday Arts for Special Education* (EASE) is \$4,633,395.

The five-year project will reach a total of 40,795 students, with a total per-student cost of \$114.

Everyday Arts for Special Education: Cost per student (yearly) during funding period:

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Cost Per Student (federal request)	\$229.12	\$135.77	\$103.15	\$96.17	\$93.79

We have calculated the per-student cost of regional training at \$42.36;²¹ the per-student cost of national training (including travel and accommodation for trainers) is \$67.69.²² Given that there are easily 250,000 special education students who could be served by regional training in the New York metropolitan area, we calculate the first 100,000 and 250,000 students at the regional rate; the remaining 250,000 for the 500,000 scale-up are calculated at the national rate.

Number of students added	Cost per additional student	TOTAL STUDENTS SERVED	TOTAL COST
100,000	\$42.36	100,000	\$4,235,564.30
150,000	\$42.36	250,000	\$10,588,910.76
250,000	\$72.02	500,000	\$28,594,160.10

E5) Dissemination and Further Development or Replication

As outlined in detail in Question A2, we have multiple strategies for broadening the reach of this project and for dissemination of its results, including training workshops for special education teachers and college students throughout New York City and beyond, workshops for special education administrators and educators from other cities, creation of written and video Curriculum Guides that will be disseminated online, creation of an online EASE community

where educators can communicate with MNMP artists and one another, and the dissemination of methods and results at local and national conferences.

F. SUSTAINABILITY

F1) Resources and Support to Operate the Project Beyond the Length of the Grant

We believe that the *Everyday Arts for Special Education* (EASE) program will prove to be a cost-effective way for schools to improve teacher effectiveness and retention, improve student achievement, and fulfill state-mandated arts requirements for special needs students. Upon completion of the funding period, we anticipate a high level of demand for EASE training, both within and beyond the New York City school system.

By the end of the grant period, thirty District 75 teachers will be trained EASE mentors, able to provide professional development and support for EASE curricula. The New York City Department of Education currently mandates professional development days for all teachers and paraprofessionals; it is our intention that EASE teacher mentors be incorporated into the existing system and conduct professional development workshops for teachers and administrators throughout the District.

In addition to the Master Teaching Artists, by the end of the funding period, MNMP will have trained an additional 45 Assistant Teaching Artists to implement the EASE program. MNMP and District 75 will pursue funding to provide more intensive EASE training to other District 75 schools after the completion of the project. Working through the NYCDOE Office of Strategic Partnerships and The Fund for Public Schools, we anticipate a continuation of funding from the private sources providing matching funds during the grant period. Schools can also use their arts-allocated funds toward EASE training.

We will also continue to provide online support for the EASE program. We will maintain a dedicated EASE website, which will provide an overview of EASE goals and strategies, as well as specific instructional aids: the written EASE Curriculum Guide and its accompanying Video

Demonstration Guide. There will also be an online community where educators can interact with each other to ask questions, offer strategies and share successes.

F2) Incorporation of Project into Ongoing Work of Applicant and Partners

District 75: EASE's project design reflects its fundamental objective: to build capacity by providing a program that is sustainable beyond the period of Federal financial assistance. During the five-year funding period, over 300 teachers and administrators at ten of the largest schools in District 75 will receive extensive professional development and in-school support. This thorough support is designed to produce durable changes in these educators' skills and strategies, thus effecting lasting change in their classrooms, and in student outcomes, for years to come. An additional 450 District 75 teachers will receive a three-day EASE workshop through the district-wide professional development system. By the end of the funding period, the EASE program will have gained a solid foothold in District 75's educational culture, having already reached approximately 18% of the district's 4,000 teachers. As discussed in Question F1 above, we will continue to train more teachers in subsequent years.

Manhattan New Music Project (MNMP): Of the dozens of arts-in-education organizations in New York City, MNMP is already at the forefront in providing specialized programs to special education students and their teachers; the EASE program will be incorporated into MNMP's ongoing work in this area. MNMP will aggressively pursue a range of dissemination strategies in order to expand the reach of the EASE program, both within New York City and nationally. Strategies include providing EASE training to special education teachers within New York City's community, charter, and private schools, and ongoing summer trainings for special education teachers and administrators. In addition, MNMP hopes to partner with education organizations and school systems around the country in order to train teachers and administrators nationally.

G. QUALITY OF THE MANAGEMENT PLAN AND PERSONNEL

G1) Clearly Defined Responsibilities, Timelines, And Milestones

To achieve project goals in a timely and cost-effective manner, we have developed a management structure that incorporates the expertise of several project leaders. Members of this management team have already successfully collaborated on three large-scale initiatives funded under CFDA 84.351C: *Communication and Socialization through the Arts* (2008-11), *Creative and Integrative Arts Educators* (2005-08), and *Creative Music Educators* (2002-05).

Key Personnel: Project Managers		
Name	Title	Project Responsibilities
Kathy London	Project Director	Oversee all aspects of project; coordinate with school administrators, Manhattan New Music Project staff, and Project Evaluator; handle logistical arrangements for professional development workshops
Mike Halverson	Assistant Project Director	Oversee project implementation as MNMP point person; coordinate with Project Director, Curriculum Committee, MNMP staff, and Project Evaluator
Dr. Rob Horowitz	Project Evaluator	Provide all evaluation services for the project, prepare all required evaluation reports, and aid in dissemination efforts
Dr. Jennifer Raine	Curriculum Developer	Work with Curriculum Committee to develop and write curriculum, and to conduct professional development workshops

Key Support Personnel		
Name	Title	Project Responsibilities
Neil Coffina	Project Supervisor	Coordinate with District 75 Budget Office regarding all financial aspects of the project, order and distribute supplies, manage all required paperwork
Allyson Morgan	Project Coordinator	Coordinate with Project Director and Assistant Project Director, Curriculum Committee, teaching artists, and school administration to manage day-to-day details of program
Unitey Kull	MNMP Exec. Director	Spearhead dissemination and step-up efforts, marketing, and development/fundraising for continued & expanded EASE activities
Master Teaching Artists-T.B.D.	Curriculum Committee	Work with Curriculum Designer to create, revise, and adapt curricula for workshop and classroom use, and to document and report best practices to aid in this effort
	School Administrators	Coordinate with Project Director and Teaching Artists to manage on-the-ground project logistics

Project Managers will meet monthly and communicate as frequently as necessary to oversee the operations of the project, provide support and resources to improve and develop project activities, and ensure that all activities maintain the integrity of the original proposal.

Management Timeline and Milestones: *Everyday Arts for Special Education (EASE)*

Dates	Activities	Milestones/Activity Outcomes
09/2010	Project Managers meet to plan for Year 1 (monthly meetings will continue throughout project)	Detailed Year 1 schedule created, various project tasks assigned
	Invitation issued to District 75 schools to apply for inclusion in the project	Applications received, by which potential commitment to project can be assessed
	Creation of Curriculum Committee and selection of teaching artist cohort	Curriculum Committee begins planning specific workshop and in-class content
10/2010	Selection of schools and Year 1 cohort of 60 teachers; planning meetings with school administrators	Schools administrators understand project goals, activities, obligations and timelines
11/2010-06/2011	Series of four Professional Development workshops for Year 1 teacher cohort and school administrators (workshops occur approx. monthly)	Teachers learn and develop EASE strategies and activities, and reflect on best practices
	In-school professional development occurs (weekly), including collaborative classroom modeling and on-site professional development	Teaching artists and teachers implement EASE strategies in classrooms, and engage in small group and/or individual PD
	Evaluation team observes workshops and in-school work, develops evaluation tools, and begins collecting baseline data	Evaluation team, with input from all stakeholders, begins honing evaluation plan
	Curriculum Developer and teaching artists meet (approx. monthly) for curriculum planning meetings and reflective seminars	Best practices are continuously recorded, peer support and reflection improves teaching practices
01/2011-03/2011	District-wide workshop series (open to any District 75 teachers NOT in the ten treatment schools; workshops occur approx. monthly)	EASE practices reach more teachers and students
06/2011	Collection of best practices from teachers, related service providers, and teaching artists	Best practices will be recorded in written Curriculum Guide, to be updated and revised each project year
	Evaluation team conducts interviews of project participants	Evaluation team gathers data and prepares Year 1 Evaluation Report
07/2011	Project Managers and Project Support Team meet to reflect on successes and challenges, and plan for following year	Careful analysis of the project leads to project improvements. Plans for next year are solidified
08/2011-07/2015	Activities will correspond with the previous year, with 60 additional teachers each subsequent year	Project will continuously improve through extensive feedback from all stakeholders
08/2012	Summer EASE seminar for local special education teachers and college students. In Years 3-5, teachers from across the country will be invited.	EASE practices reach more teachers and students within and beyond New York City
07/2013	Administrators' Workshops occur in the summer of Year 3-5; special education administrators from all over the country are invited	EASE practices reach special education administrators beyond New York City, partnerships can be forged to expand project
09/2013-08/2015	Dissemination of project data and curricula begins	Through multiple avenues, project data and curricula are disseminated to educators and administrators
08/2015	Final evaluation report	A thorough analysis of project as mandated by grant

G2) Qualifications of Key Project Personnel

KATHERINE LONDON, M.A., *Project Director*. As Instructional Specialist for the Arts, Ms. London coordinates District 75's curriculum implementation and all related activities in each area of the arts (visual, music, dance, theater). She provides technical assistance to staff on arts education programs, standards-based practices, professional development, resources and learning events, and related issues. Ms. London served as Project Director for *Communication and Socialization through the Arts* (2008-11) and *Creative and Integrative Arts Educators*, (2005-08) both funded under CFDA 84.351C. She brings an ongoing relationship with, and understanding of, the needs of District 75's arts teachers, as well as extensive knowledge of special education instructional practices specific to the arts for Alternate Assessment students.

MIKE HALVERSON, M.A. Ed. *Assistant Project Director*: As Director of Education at the Manhattan New Music Project, Mr. Halverson oversees all of MNMP's educational programming. With twenty years of experience as an arts administrator and classroom teacher, Mr. Halverson has led professional development workshops for the New York State Council on the Arts (NYSCA) Empire State Partnerships and the Brooklyn Arts Council, and has facilitated arts education partnerships for NYSCA, Park Avenue Armory, and Young Audiences New York. His prior employment includes Center for Arts Education, where he coordinated professional development institutes for New York City principals, and Stages of Learning, where as Director of Programs he was responsible for developing and implementing artist-in-residency programs that served 3,000 students annually throughout New York City.

ROBERT HOROWITZ, Ed.D., *Project Evaluator*, is Associate Director of the Center for Arts Education Research at Teachers College, Columbia University. As part of a group of researchers supported by The GE Fund, Dr. Horowitz investigated the impact of arts learning on several cognitive and social dimensions, such as creativity, personal expression, and school climate.

The collective research, *Champions of Change: The Impact of the Arts on Learning*, was published by President Clinton's committee on the Arts and Humanities and the Arts Education Partnership. He is a recipient of the NAEA 2001 Manuel Barkan Memorial Award for the article based on this work, "Learning In and Through the Arts: The Question of Transfer" in *Studies in Art Education*. More recently, Dr. Horowitz contributed to *Critical Links: Learning in the Arts and Student Academic and Social Development*, a compendium of 62 studies of arts learning and its connections to broader human development.

JENNIFER RAINE, D.M.A., Curriculum Designer, has created and implemented music and theater programs in public schools since 1995. As Special Program Coordinator for the Manhattan New Music Project, she designed *Communication and Socialization through the Arts* (CASTA), funded under CFDA 84.351C, which provides professional development to teachers working with students on the autism spectrum. Dr. Raine currently spearheads curriculum development and professional development workshops for CASTA and other MNMP initiatives, including *Blank Page to Stage* and *Setting the Stage for Success*, both funded under CFDA 84.351D. From 2002-2008, Dr. Raine served as Curriculum Developer for the MNMP/District 75 professional development programs *Creative Music Educators* and *Creative and Integrative Arts Educators*, both funded under CFDA 84.351C. In addition to her extensive work within the New York City public school system, Dr. Raine conducts student and staff development workshops throughout North America.

ENDNOTES

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- ¹ *2008-2009 Annual Arts in School Report*. NYC Department of Education (2009).
- ² *Status of the American Public School Teacher*. National Education Association (2006).
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- ⁴ Soraci, S., Deckner, C.W., McDaniel, C. & Blanton, R.L. (1982). *The relationship between rate of rhythmicity and the stereotypic behaviours of abnormal children*. *Journal of Music Therapy*, 19(1), 46-54.
- Nelson, D., Anderson, V., & Gonzales, A. (1984). *Music activities as therapy for children with autism and other pervasive developmental disorders*. *Journal of Music Therapy*, 21. (3), 100-116.
- ⁵ Reid, D.H., Hill, B.K., Rawers, R.J. & Montegar, C.A. (1975). *The use of contingent music in teaching social skills to a nonverbal hyperactive boy*. *Journal of Music Therapy*, 12(1), 2-18.
- Schmidt, D.C., Franklin, R. & Edwards, J.S. (1976). *Reinforcement of autistic children's responses to music*. *Psychological Reports*, 39(2), 571-577.
- ⁶ Evans, Kathy (1999). *Art therapy with children on the autistic spectrum: beyond words*. London: Jessica Kingsley Publishers.
- ⁷ Winnicott, Donald (1971). *Playing and reality*. London: Routledge
- ⁸ Grandin, Temple (1996). *Thinking in pictures: and other reports from my life with autism*. Vintage.
- ⁹ Horowitz, R. *Unpacking current research & evaluation: Implications for students with disabilities*. Explicit Contours: Investigating Arts Education & Learning Outcomes for Students with Disabilities. Very Special Arts Research Symposium, June 2005
- ¹⁰ Horowitz, R. (2008). *Program Evaluation: Creative and Integrative Arts Educators*.
- ¹¹ *Grant Performance Report: Communication and Socialization through the Arts*. NYC District 75 (November, 2009).
- ¹² Horowitz, R. (2005). *Program Evaluation: Creative Music Educators*.
- ¹³ Horowitz, R. (2008). *Program Evaluation: Creative and Integrative Arts Educators*.
- ¹⁴ *Interim Assessment: Communication and Socialization through the Arts*. NYC District 75 (April, 2010).
- ¹⁵ *2008-2009 Annual Arts in School Report*. NYC Department of Education (2009).
- ¹⁶ *2008-2009 Annual Arts in School Report*. NYC Department of Education (2009).
- ¹⁷ *Grant Performance Report: Communication and Socialization through the Arts*. NYC District 75 (November, 2009).
- ¹⁸ Horowitz, R. (2008). *Program Evaluation: Creative and Integrative Arts Educators*.
- ¹⁹ To calculate students per year, we assume an average of 9 students per year (District 75's classes have between 6-12 students) per classroom teacher. For arts teachers, who see multiple classes, we assume an average of 100 students per year.
- **A combination of teacher professional development and direct in-class services:** Students at the ten treatment schools in classes served by Collaborative Modeling activities
 - Number of classes served: Year 1=60; Year 2=120, Years 3-5=180
 - **Professional development only** - Students served in the following ways:

- Students of arts teachers (Year 1=10; Year 2=20, Years 3-5=30) in treatment schools who are *not* in Collaborative Modeling classrooms, and students of Cohort 1 and 2 teachers who are no longer in Collaborative Modeling (Years 4-5)
- Students of teachers who attend **district-wide workshops** (Year 1=30 classroom teachers, 20 arts teachers; Years 2-5=70 classroom teachers, 30 arts teachers)
- Students of teachers who attend **summer seminars** (Year 3=15 classroom teachers, 10 arts teachers; Years 4-5=35 classroom teachers, 15 arts teachers)

²⁰ *2008 Annual Report*. The Fund for Public Schools (2008).

²¹ Costs are based on a five-day workshop series, plus 5 in-school Collaborative Modeling sessions, 5 on-site small-group professional development sessions, and 100 administrative hours.

²² Costs are based on a four-day workshop series, plus 5 in-school Collaborative Modeling sessions, 10 on-site small-group professional development sessions, and 120 administrative hours. Also included are travel, hotel, and per diem costs for EASE trainers.