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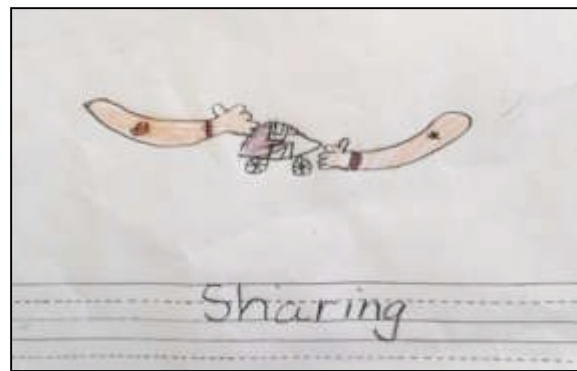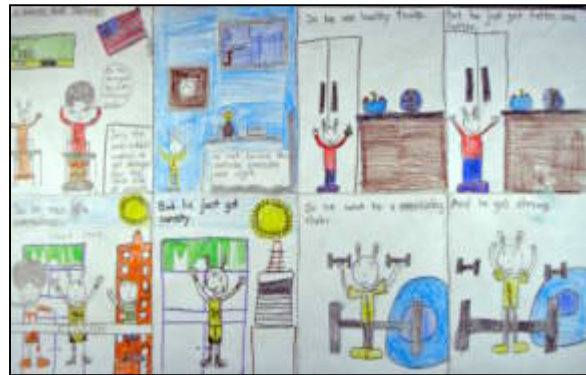Developing Early Literacy Through the Arts
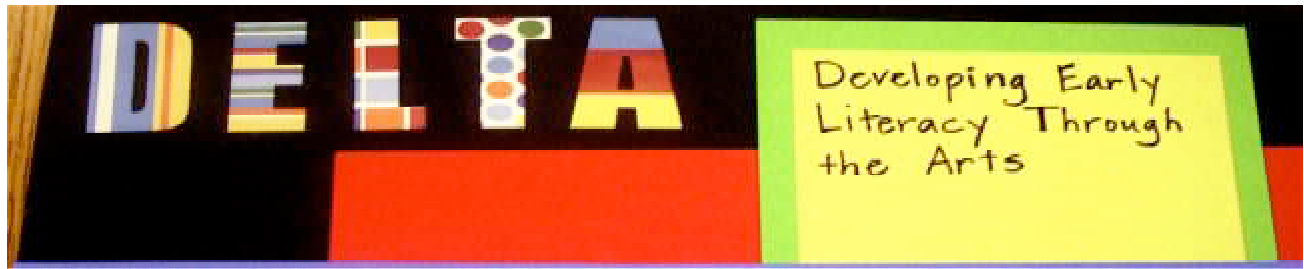
A Final Report

By Larry Scripp, Principal Investigator
With contributions from Gail Burnaford, Florida Atlantic University
Andrew Bisset, NEC Research Center
And Stephanie Pereira, Shari Frost and Gigi Yu, Field Research Team,
CAPE

May 18, 2007

Self-confidence can do wonders for a child who is struggling academically. Suddenly, a student who could never do anything 'right' is no longer afraid to be wrong and is willing to try. And, that is something that all good learners must do. As a result of DELTA, many of my students no longer say those dreaded words, "I can't!" I found this realization to be a pleasant surprise. It was not what I was expecting when we began this "educational experiment."–Josy Nolin, Second Grade CPS Teacher

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Final Report

Larry Scripp, Principal Investigator
With contributions from Gail Burnaford, Florida Atlantic University,
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Research Team
March 1, 2007

I. Introduction

The Development of Early Literacies Through the Arts (DELTA) project, a three-year collaboration between the Chicago Public Schools (CPS) and the Chicago Arts Partnerships in Education (CAPE), applied the CAPE model of improving schools through arts integration, teacher professional development, and teaching artist collaborations to support the Improving Academic Achievement Through The Arts (IAAA) initiative of the Chicago Public Schools. Serving three Case Study DELTA Schools with intensive professional development, artist residencies, technical assistance, and research, as well as the 26 Demonstration Schools in the IAAA network, DELTA addressed the priorities of the Reading Initiative of the Chicago Public Schools.

The core strategy of this project was to focus intensively on three high poverty schools that were not originally part of the CAPE network and to provide these schools with a model for increasing the presence of the arts and their contribution to early language literacy in grades 1-3. This study, predicated on CAPE providing long-term relationships between artists and schools to co-develop and co-deliver standards-based, arts-integrated curriculum, provided (a) rigorous professional development focused on the investigation of the relationship between the arts and language literacy, arts integration curricular frameworks, and school planning methodologies for teachers, and (b) extensive and ongoing documentation and assessment strategies for teaching artists willing to serve as 'action researchers' who, in partnership with classroom teachers, developed a DELTA portfolio process for the dissemination of innovative arts-integrated literacy teaching and learning practices to the Chicago Public Schools.

The findings from this project are divided into two parts: (a) Three Case Study School Reports that rely on descriptive data and best practice exemplars from interviews and DELTA project digital portfolios to provide the best evidence of the model-building and portfolio dissemination phases of the project, and (b) qualitative and statistical analysis of data from teacher interviews, surveys, and observations and student interviews and performances. Conclusions and implications stemming from this report focus on both the richness of the Case Study Reports as models for DELTA arts integration practices and on the analysis of somewhat incomplete data collection processes from some schools, demonstrating the challenges of this research model and suggesting recommended next steps for the DELTA project.

II. Brief Description of Accomplishments Within The Three Overlapping Phases of the DELTA Project

Years 1-3: Induction and Ongoing Development of Arts Integrated Literacy Units

The first stage of the project initially entailed a process of teacher induction into CAPE's arts integration methodology. The professional development workshops, based on CAPE practices outlined in *Renaissance in the Classroom*, provided year-long teacher training for standards-based arts integration based on one-on-one collaboration between classroom teachers and teaching artists in dance, theater, music, and visual arts.

Considerable time was spent focusing on the unique nature of each art form and the commonalities of learning processes and concepts it shares with language literacy skill development. Essential aspects of early literacy were identified, and strategies for enhancing understanding of these concepts for all three years of the project were explored through parallel problem-solving processes in multiple arts media. Assigning at least two teaching artists representing contrasting art forms to each case study school resulted in the following project types:

- Acting, story writing, bookmaking projects supported the development of students' narrative thinking skills through detailed illustrations in storyboard frames. It was hypothesized, for example, that students would engage a deeper personalized understanding of story structure, character, and interpretation of literature through distillation of storytelling sequences drawn from their own experiences and their understanding of children's literature. The sample student work below, "Big Splash," demonstrates the level of detail and clarity of storytelling and illustration in the context of learning how to write about facing obstacles to actions. The students' storyboards depict a series of obstacles to crossing a street. After waiting for cars and trucks to pass, the children are finally waved on by a crossing guard, only to find out that crossing the street created a big splash!

II. Figure 1:
Although spelling and syntax problems are not resolved, the illustrations are detailed and the dramatic content of the storytelling is compelling and relevant to students' everyday lives.

II. Figure 2:
Four storyboards created during Kevin Douglas and Mary Tepper's story writing/bookmaking project
at the Miles Davis School, described in detail later in this report.

- Painting and drawing projects were constantly revised and adapted to engage and enhance students' language literacy skills and concepts at all the case study schools. The artists and teachers felt that engaging children in visual explorations of personal feelings, actions, and complex circumstances associated with vocabulary words, for example, would motivate children (a) to investigate word meanings and usage deeply, and (b) to write stories based on their visual representations of stories, characters, objects, scenes, or creatures (e.g., 'bees' below), which capture the essence of these word meanings while also improving the students' spelling skills.

II. Figure 3:
An example of 'word play' or 'treating words as art' component of the Sumner Community Mural Project described in detail later in this report.

- Music reading and problem-solving composition tasks provided an opportunity for students to explore parallel processes between music literacy and language literacy skills at the Emmet Case Study School (a unit implemented in year three only). It was felt that learning to decode musical symbols through clapping and singing, and linking music reading to lyrical structures, would greatly enhance sensitivity to and understanding of phonemic awareness, phonetics (syllabification, etc.), word fluency, vocabulary, and reflective thinking skills applicable to the early development of language reading and writing skills. Through the DELTA program, students received musical literacy instruction that included incorporating vocabulary words into songs through an investigation of rhythm and rhyme (see below).

II: Figure 4:
Components of Adam Busch's music reading and writing project displayed in the Emmet School DELTA Portfolio. The small text in the middle reads as follows: "Students copied melodies and learned to identify beats and notes. Using their new-found knowledge, they transformed words from their classroom Word Walls into lyrics with 'Rhythm and Rhyme.'"

- Dance improvisation and movement exercises, particularly at the Sumner School, explored the kinesthetic dimension of literacy concepts; improvisational structures were designed to develop children's ability to embody expressions of character and story from both a personal and social point of view. In the example below, students are learning tai chi movements as an exploration of metaphorical connotations of movements or poses and how they are achieved through subtle shifts of energy with respect to gravitational forces.

II. Figure 5:
Dance DELTA units implemented in most classrooms were well-appreciated by teachers as indicated by their journal responses. Nonetheless, these units contributed little documentation or assessment data to the DELTA project report. Revised units and individual student performance assessment methods are recommended for implementation of future CAPE-based projects that include dance, theater, and music.

DELTA Projects Framed as Inquiry

As indicated in the example below, CAPE artists approached the DELTA curriculum development from the point of view of 'big questions' focused on the relationship between learning in arts disciplines and language literacy. In this case, visual arts were used to study the concept of community as a prelude to literacy instruction, due to classroom behavior problems that interfered with literacy instruction in the first two years of the project.
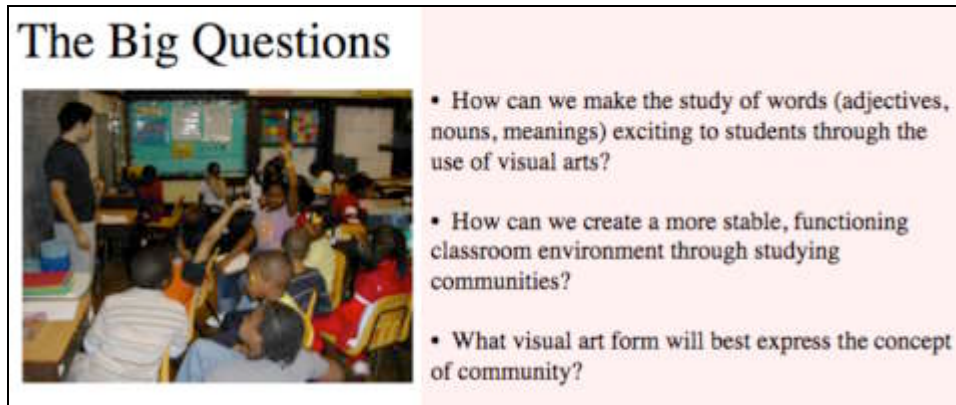
II. Figure 6:
Typically DELTA case study schools framed their inquiry questions as part of the DELTA Portfolio process, as indicated here from the Sumner Report.

In another example of guided inquiry, the theater, playwriting, and storyboarding exercises at Miles Davis and Sumner challenged students to focus on concepts and contexts through character acting in group improvisation and through screenwriting skills. By challenging children to invent characters and actions within prescribed circumstances and overcoming obstacles to problems, it was thought that children would develop, among other things, a heightened awareness of physical space, human interaction, and social context for storytelling through enactment of multiple facets of dramatic tension and resolution.
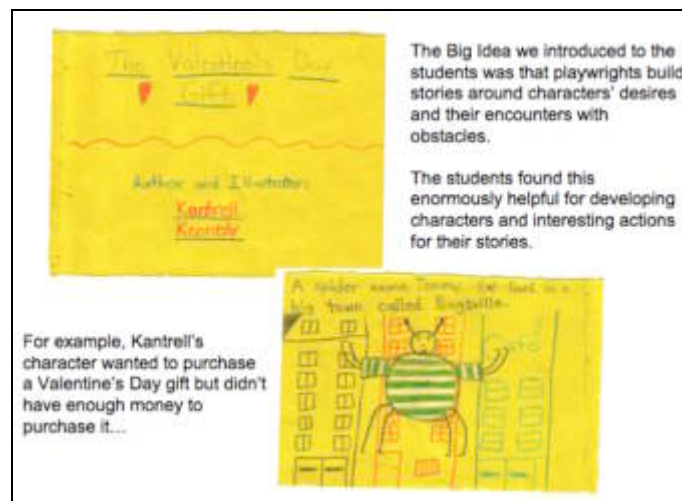
II. Figure 7:
DELTA Portfolio storyboard segment from the Miles Davis Academy Case Study Report.

Ongoing Professional Development for DELTA Teachers and CAPE Artists

Extensive time spent on professional development allowed collaborating teachers and teaching artists time to work out initial ideas in the classroom. These concepts were designed to engage urban elementary students in (a) a wide range of arts learning processes unfamiliar to both students and teachers, and (b) the connection of these unfamiliar arts learning processes to language literacy skill instruction.

CAPE teaching artists also embraced certain professional development challenges that were necessary for the success of the DELTA project. During the first period of the study, the CAPE teaching artists were given groundbreaking training in developing CAPE action research methods in the context of language literacy skills. In addition to their normal responsibilities for arts integration curriculum development, the artists embarked on the long-term task of co-developing documentation practices and data collection methods that greatly expanded their roles from program delivery agents to 'teaching artists as action researchers.' This new phase of teaching artist professional development was designed to increase the capacity of CAPE to build and assess arts integration program development from a research perspective based on the collaboration of formal researchers as coaches and teaching artists as action research practitioners.

During the first phase, Chicago Public Schools literacy instruction and CAPE arts integration practices were subject to observation protocols, and baseline surveys focused on the attitudes of teachers involved in the project were administered. Initial forms of arts integration units and documentation were prepared for grades 1-3 implementation in the second phase of the project.

Year 2: Piloted DELTA Units, Documentation Processes, Development of Assessment
    instruments

The second phase of the project required artists and researchers to work together to establish all aspects of student work documentation and assessment practices within the parameters of the initial research design. Key to the validity and the practical success of the project was the sampling process.

A sampling of students in each of the DELTA classrooms was determined by having each teacher categorize all students into four groups:

    H: High literacy skill achieving student
    A: Average literacy skill achieving student
    L: Low literacy skill achieving student
    O: Other literacy skill achieving student (that seemed to defy easy categorization in the
        other three areas)

Four students (one from each group) were randomly selected from each of three classrooms in each of grades 1-3 of each school. Thus, it was anticipated that as many as 144 students (4 students x 4 classes x 3 grade levels x 3 case study schools) would be evaluated in depth. Documentation of these HALO-sampled students included [see Appendix A for complete list]:

- Sample literacy work in the classroom;
- Documentation of arts learning work, either in the form of student work on paper or video clips of performance work;
- Paper and video clip documentation of SEAL performance tasks (short performance tasks designed by the teaching artists in each arts discipline); and
- Videotaped SEAL interviews (based on questions about understanding of artistic learning processes important to all arts disciplines, as developed through consensus drawn from all participating CAPE teaching artists).

It was also during this phase of the project that analytic rubrics were developed to assess the quality of student understanding of arts literacy processes. The SEAL, or Snapshot of Early Arts Learning tasks and assessment framework, was created by CAPE artists and staff to function as an arts learning assessment in tandem with the Illinois Snapshots of Early Literacy (ISEL) test and other assessments administered by CPS classroom teachers (e.g., DIBELS, Miscue analysis). The SEAL task framework, adapted to specific art forms, was designed as a guideline to capture and assess general arts learning processes and abilities of early learners common to all art forms. The SEAL is a four-part assessment that involves (1) *observation* of students engaged in art making, (2) *student responses* to questions about art and artistic processes, (3) *student response,* either written or oral, to a piece of art work, and (4) *student reflection* on their own art work [see Appendix B, SEAL Test and Assessment Framework]. The SEAL tests were piloted in the second year and revised and administered as pre-post tests during year three of the DELTA project.

The sample documentation list (see DELTA Portfolio Slide below) developed through visual arts projects at the Sumner Case Study School conveys the scope of parallel literacy student work achieved through 8-11 teaching artist visits.

II. Figure 8:
Sample DELTA data inventory as listed in the Sumner School DELTA Portfolio.

<u>Year 3: Full-scale Implementation, DELTA Portfolio Dissemination, Formative and Summative</u>
<u>Analysis of Project Work</u>

In the final year of the project, the teaching artist units were implemented, documented, and formatted into powerpoint-based DELTA school portfolios. These portfolios were then used in a culminating dissemination event for Chicago Public Schools in which teaching artists and collaborating teachers presented, discussed, and demonstrated various phases of the DELTA project work as illustrated by powerpoint slides from each case study school portfolio.

The selection of documentation for the DELTA portfolios, collected and interpreted by both CAPE artists-action researchers and their CPS teacher collaborators, provided an important layer of evidence for the impact of the DELTA program in the case study schools. As illustrated by the examples provided throughout this report, the DELTA powerpoint-formatted portfolio slides provide rich description and carefully chosen artifacts derived from the standards-based DELTA curricular units, student work, and testimonials of the impact on children's arts and literacy learning. Framed as action research inquiry questions that fueled the collaborative process between artists and teachers, the slides (see example below) also provide clues as to the process challenges that the project faced and the hard-won solutions that artists collaborating with teachers achieved. An early slide from the Sumner Case Study School below demonstrates how the problem of negative behavior can serve as a creative constraint for inventing arts-rich literacy processes through the articulation of a positive learning community.

II. Figure 9
In this Sumner DELTA Portfolio, the "Problem" is presented as an underlying framework for understanding curriculum development in the third year of their DELTA project.

The final year of the project pre-post SEALS Interview and Performance Tasks were transcribed, coded, and rated according to rubrics piloted in the previous year. Teacher attitude survey data were collected and compared with baseline survey results. Finally, teaching artist and classroom teacher interviews were conducted, transcribed, and analyzed.

III. Outline of Program Development Outcomes

Results from the DELTA project reported here fall into different categories of analysis in the following sections of this report:

Multilayered Analysis Strands

These multilayered strands of analysis reflect the scope of the DELTA project activities and outcomes. The layers proceed through qualitative and quantitative methods of documentation and analysis developed during the course of the DELTA project. As the strands progress, a portrait of the project emerges highlighting its ambitious scope for both CAPE artists and CPS teachers and providing valuable reminders of the challenges and obstacles facing curriculum innovation in and through the arts, especially when schools are not able to prioritize arts learning as a core ingredient of the curriculum and teaching culture. Thus, when taken together, these outcomes portray the rich potential of arts-integrated literacy as well as limitations resulting from less than optimal conditions of support in the schools themselves.

Throughout these strands there is considerable evidence of CAPE's increased capacities as a research-based arts learning organization. At every step of the DELTA progression of events, CAPE staff and artists, with enthusiasm and effectiveness, took on responsibilities for setting new standards for 'research quality' field-based methods of documentation. That is, the CAPE artists and their newly created position of research coordinator collaborated with literacy advisors and professional development and assessment experts to devise (a) practical and

systematic methods of documentation, (b) performance assessment tasks, and (c) scoring systems based on various forms of arts and arts literacy learning. These newly-developed tools were featured as integrative components of their collaborative DELTA units in the schools. Thus, even though these action and formal research practices are still in progress, the newly developed capacities in the DELTA project are now part of the ethos and practices of CAPE's approach to working with entire networks of arts integration schools in the Chicago Public School System.

Each of the outcomes described throughout the remaining sections will include a description of CAPE's role in developing new practices and technology supported assessment and dissemination strategies for understanding the deep connection to literacy as a primary focus of schools. 'Lessons learned' in the DELTA project can inform arts integration organizations of the considerable challenges and rewards of building rigorous research-based practices in schools through extensive professional development of teachers and artists, as well as of building in time for reflection on the validity and practicality of weaving evidence-based practices into the fabric of program delivery systems.

CAPE's Contribution to the DELTA Project

Results from the Developing Early Literacies Through the Arts (DELTA) Case Study Reports resulted from six aspects of capacity building provided by CAPE.

1. As a teacher training program, DELTA provided teachers with the tools to create an innovative and engaging arts-based curriculum that responds to the literacy needs of their students.

2. As an artist training program, DELTA developed artists' capacities to work closely with teachers to integrate their art forms into literacy curriculum areas and to become an integral part of the teaching community of a school.

3. As a school planning and implementation program, DELTA promoted effective working relationships within the school community, including all logistical aspects of scheduling and supporting planning time and artist visits in schools.

4. As an arts-integration program, DELTA focused on addressing the needs of at-risk students through culturally relevant and engaging learning opportunities.

5. As a partnership program, DELTA facilitated web-based communication and work sharing among the three case study schools and provided opportunities for understanding DELTA's contribution of literacy-focused learning in the larger mission of arts integration among the 26 DELTA demonstration schools.

6. As a research project, DELTA provided a way to stress the importance of evidence-based understandings of successful practices to the development of an arts integration model that is potentially replicable throughout the Chicago Public School demonstration schools or throughout other school networks committed to improving literacy instruction through the arts. Key to the successful dissemination of the project was the commitment to the DELTA Digital Portfolio Process that was designed to highlight the substantial features and evidence-based findings of the DELTA project from the point of view of the participants in the project.

CAPE Professional Development Support for the DELTA project

The key condition for the success of the DELTA project was its professional development program for the collaborating CAPE artists and CPS teachers. Transforming the artists into action researchers, creating a climate for teachers and artists to create arts-based literacy programs in three case study schools, and disseminating these programs to 26 demonstration schools required extensive, ongoing professional development. Included in the DELTA project was extensive time for teachers and artists for project documentation and reflection. Project teachers and artists learned to employ strategies for documentation which recorded effective curriculum practices, assessed student work, and shared and disseminated arts-integrated processes. Having participated in professional development in documentation, DELTA artists and teachers were prepared and committed to their classroom documentation and to the eventual dissemination of DELTA work throughout the three-year project, including the culminating DELTA portfolio dissemination event for CPS schools.

III. Figures 1-2:
Teacher presentations were an essential feature of CAPE professional developments sessions throughout the three years of the DELTA project.

The DELTA project provided 40 hours of ongoing professional development courses to 3 teachers, 2 teaching artists, 1 literacy specialist, and 1 arts specialist per school in grades 1-3 (grades 1 and 2 in year 1, adding grade 3 in year 2). The DELTA project began with a 20-hour course to provide teachers and artists with an in-depth understanding of CAPE's approach to arts integration, documentation, assessment, and early childhood literacy. For the second 20-hour course of the professional development sequence, CAPE highlighted multimedia technologies in the classroom, in conjunction with advanced arts integration work. Teachers and artists learned a variety of multimedia approaches, from digital video to website design and more, and learned

how multimedia technologies can be used as an integral part of an arts integration curriculum and/or in documenting the development of that curriculum.

A key outcome of the DELTA professional development program was the collaborative process underlying the development and teaching of arts-integrated curriculum units by experienced CAPE artists and DELTA project teachers. In the first year of the project, CAPE provided the DELTA project case study schools with a teaching artist for each participating project classroom for 14 weeks, 1.5 hours per week, to implement arts-integrated early childhood literacy curricular work. In the second and third years, CAPE extended the teaching artist residencies to 20 weeks. Through these ongoing visitations, teachers had direct experience in co-creating arts-integrated DELTA curriculum units with artists. In doing so, teachers gained extensive knowledge of artistic media and insight into the conceptual and experimental stages of creating art. With reflection on these experiences, teachers were able to see the deep correlations in thinking processes between art-making and the students' learning in the context of language literacy and other related academic and social development aspects of the curriculum. These insights were recorded by teachers as they worked with artists in their classrooms, and many of these insights were captured in the DELTA digital portfolio process.

The validity of arts integration as a tool for enhancing literacy depended on the participation of experienced teaching artists. CAPE artists spearheaded the infusion of two of four disciplines in each DELTA classroom: visual arts, creative writing/theater, dance/movement, and music/sound production. Each DELTA teacher worked with two different artists from two different areas, thus expanding the teacher's knowledge of arts media and various ways to develop multiple strategies for addressing early childhood literacy through the arts. The artists and teachers worked together to collect samples of student work and reflected on the relevance of the arts and arts learning with regard to literacy, and, in particular, to the development of strategies for literacy-challenged students through the arts. The stages of the DELTA curriculum building process were captured in the DELTA portfolio segments, best seen in case study reports (Section IV).

The validity of the action research methodology required extensive training and support for CAPE artists as process documenters regarding the creation and implementation of DELTA curriculum units and their impact on student learning. DELTA provided documentation and planning time for teachers and artists to implement the skills obtained through the DELTA professional development sequence and to learn how to capture and represent these findings in the DELTA portfolio process. Project teachers and artists developed strategies for documentation that captured the process of arts-integrated learning. This allowed teachers and artists to understand more fully what students are and are not learning, how different students responded to arts-integrated learning, what questions and/or other areas of student investigation and discovery may arise during the process, and what the artist and teacher learned from the project. The results of this methodology are presented primarily through the detailed descriptive analysis of three contrasting school case studies in the following section.

IV. Introduction to the Three DELTA Case Study Models

Most of the teachers and artists who initially dedicated themselves to this project started with high expectations for enhancing literacy through arts integration; however, since they were unfamiliar with CAPE's program and modes of action, few had any definite ideas how DELTA curricular units would develop or become grounded in their classroom practices. Therefore, CAPE's key strategy for modeling and disseminating arts-integrated practices was to make transparent to all participants the process of collaborative unit planning, teaching, and assessment of student work at every stage of the project. Consequently, the CAPE staff, with Dr. Gail Burnaford's participation and guidance, designed professional development services to provide teachers and artists with tools and methods for cumulative documentation of their 'inquiry questions,' action plans, and occasions for reflection and revision of their DELTA work. With these services and strategies in place, the digital portfolio became a foundation for capturing the growth and impact of the DELTA model-building process in three case study schools and its dissemination to 26 satellite schools.

The DELTA portfolio process is described below and throughout the case study school reports in this chapter as a series of highly promising and generative curriculum development and technology-supported dissemination outcomes.

The DELTA Digital Portfolio Process:
A Methodology Focused on Capturing Arts Integration's Contribution to Literacy

The DELTA Portfolio Assessment Process is an important lens through which the qualitative assessment of the DELTA case study school project is revealed. Furthermore, the DELTA Portfolio is an essential ingredient of the research process in the DELTA initiative because it captures a time-lapse view of the curriculum development and the collection, evaluation, and public presentation of student work. A multiple-media portfolio process thus becomes a focal point for both evidence of teacher professional development outcomes and evidence of students' literacy skill development enhanced by the arts. Multimedia portfolios from each case study school contain electronic documentation of student work, performances, and reflection on learning. In addition, teacher portfolios are made accessible through website media for demonstration and sharing of the project work for the Chicago Public Schools and nationally.

The portfolio process provides a close-up view of how the arts can enhance standards-based early literacy instruction and learning in urban school environments. In each case study school portfolio, attention is given to the varied impact of visual arts, dance, music, and drama on composing/storytelling processes and on reading/listening processes in the early childhood years. Because these portfolios were primarily produced by teachers and artists with guidance by the project directors, they speak directly to the needs and concerns of teachers and teaching artists, therefore making them adaptable to and effective in a variety of educational environments.

In the case of music, for example, there is a particular emphasis on language subskills in the context of song writing processes. Thus, each of the five reading principles from the No Child

Left Behind Reading First initiatives (listed below) are addressed in a series of music reading and composing activities [see Emmet School case study portfolio examples in section IVA]:

- Phonemic awareness: the ability to hear and identify individual sounds in spoken words *and their relationship to musical rhythm and pitch as criteria for song writing purposes (rhyming, prosody, etc.).*
- Phonics: the relationship between the letters of written language and the sounds of spoken language *as students decode and choose words set to music.*
- Fluency: the capacity to read text accurately and quickly *as students decode and choose words set to music, often simultaneously.*
- Vocabulary: the words students must know to communicate effectively *as students search for solutions to text-setting problems with music.*
- Comprehension: the ability to understand and gain meaning from what has been read *and to critically evaluate choices made while solving musical text setting problems.*

In the case of visual art, exemplified in the illustrated book-making processes and drama writing from the Miles Davis and Sumner Academy Case Study Schools [as described in sections IVB and IVC], the five reading principles are addressed through:

- Phonemic awareness: the ability to hear and identify individual sounds in spoken words *and exploring their representation in visual art exercises and story illustrations.*
- Phonics: the relationship between the letters of written language and the sounds of spoken language *as students use visual representation and expressive rendering of letters to heighten awareness of principles of phonetic rules and structure.*
- Fluency: the capacity to read text accurately and quickly *as students heighten their high frequency word recognition through illustration in stories.*
- Vocabulary: the words students must know to communicate effectively *as students explore ways to depict and express in detail meanings associated with words.*
- Comprehension: the ability to understand and gain meaning from what has been read *and to critically evaluate choices made while solving storytelling problems*.

As participants in the DELTA portfolio process, teachers made intentional choices in collecting student work and designing instruction. That is, as teachers became involved in the curriculum development process and witnessed the impact of the arts activities, they then thought deeply about what kind of student work (and related documentation of assignments and observations) would be necessary to collect so that the work could be used later to show "exemplary" evidence of literacy skill development.

Although literacy subskills are addressed in the description of DELTA curricular units, it was equally clear that solving social problems and critical and creative thinking skills associated with arts learning exercises captured the attention of teachers and their students. Thus, as the portfolio process unfolded throughout the project, DELTA teachers chose to share their examples of student arts integration work in the context of learning beyond its impact on phonetic or spelling instruction.

IV. Figure 1:
CAPE schools generally employ vividly colored word walls such as the one above as a strategy for arts integrated language arts learning. At the Sumner School, DELTA teaching artists suggested that the creation of these word walls would provide a record of how students committed themselves publicly as a class to literate understanding, spelling, and usage of high-frequency sight words in their work.

In the case of Sumner case study [in this section of the report], for example, the DELTA portfolio illustrates the contributions of visual art to the understanding of 'community' not just as a vocabulary word or spelling assignment, but as a consensus-building prerequisite for learning in the classroom itself. At Miles Davis Academy, storytelling became a process of understanding how to overcome obstacles or build conflict resolution skills in students' lives at least as much as it reflected the ability to create story lines or characters as evidence of literacy skill development. At the Emmet Elementary School, song writing activities provided repeated occasions for intensive investigation of the phonemic and phonetic aspects of language that are heightened by their integration with music. From the standpoint of cultivating and engaging an understanding of the purpose and need for literacy skills, DELTA portfolios demonstrate the success of employing one or more forms of arts learning as a fundamental basis for cultivating literacy in any field of study.

Evidence displayed in the portfolios also provides compelling examples of the DELTA project's impact on literacy teaching practices and student learning. Portfolios also clearly outline successful strategies for its replication by other teachers, although only with access to DELTA professional development, collaboration with CAPE artists, and documentation processes that are supported through action research methodologies. Thus, the DELTA portfolio process appears more likely to serve as a component of the Chicago Public School teachers' re-certification and required professional development process than as a stand-alone program that CPS can sustain without collaboration with arts integration providers such as CAPE.

Findings Displayed in the Three Case Study School Portfolios

The following sections provide a broad 'portfolio process analysis' of the DELTA project outcomes. Each strand of analysis captures the 'learning journey' of the participants in terms of standards-based arts integration curriculum building, generative professional development outcomes achieved through inquiry, discovery, and reflection on the artist-teacher collaboration process, and evidence of student growth in the context of arts-integrated literacy teaching and assessment practices.

The general features and objectives of curriculum development shared across all DELTA case study school units were introduced in the previous sections. Each case study presented below adds descriptive and visual detail to the general framework of findings and includes student work samples and teacher testimonials on the impact of the lesson plans as demonstrated and discussed at the CPS DELTA dissemination event held in the final months of the project.

Taken together, the following three case study reports portray key ingredients shared across theater, music, and visual arts learning which contribute to a broader and deeper view of how early literacy can benefit from the incorporation of multiple arts literacies into public school curriculum, documentation, and teacher professional development practices.

IVA. DELTA Case Study Report 1: Robert Emmet School

Robert Emmet Elementary School:
Focusing on Parallel Literacy Processes Shared Between Music and Language Arts
Based on artifacts and interview data provided by
Adam Busch, CAPE Music Teaching Artist, and Jurrate Moore, First Grade Classroom Teacher
in the Chicago Public Schools

*

What happens when a CAPE artist focuses on reading and writing processes in music as a parallel set of literacy skills with respect to language arts?

The first of three case studies features portfolio exhibits of lesson plans selected from curricular models developed at the Emmet School and presented in the culminating year of the DELTA project.

The artifacts from this case study school use criterion-based analytical frameworks for curriculum design which

(a) rate the degree-of-presence of key strategies for two-way 'teaching for learning transfer' based on 'fundamental concepts' and 'parallel processes' shared between arts and language literacy disciplines in the DELTA curriculum units and/or lesson plans [see Appendix C], and

(b) indicate the level of complexity to which learning activities engage multiple symbol systems, representations, intelligences, and/or cognitive processes that support or further enhance "teaching for learning transfer" across disciplines [see Appendix D].

The New England Conservatory Research Center team created these frameworks to assess curriculum design for *adherence to DELTA principles* of arts-literacy learning integration and the *level of sophistication* of the arts-integrated literacy lesson plans developed by the CAPE artists who collaborated with CPS teachers.

During the course of his final interview, the teaching artist Adam Busch provides key background information regarding the nature and purpose of the DELTA project work at Emmet, as well as considerable insight into the genesis of his curriculum planning and teaching:

> **Interviewer**: What would be your description of the kinds of curricular things that you did – the kinds of activities, lesson plans, kinds of work that you did with music? Please describe it for the layperson who doesn't know a whole lot about music and how or why whatever you did with music connects, or was intended to connect, with language literacy.

> **Adam Busch**: The DELTA unit was designed, loosely – I would say loosely because it's always challenging to take a spin on the word literacy – to help the kids read music, and in reading music, help to improve their literacy skills. So we did

lessons based on real rhythmic exercises in music for teaching kids notes and note values and connecting that to syllabication with words, scanning words from their books, from their sentences in the morning, from their vocabulary lists. We also worked with melody, working with inflection and pitch and tone in how they were reading words. That also had a lot to do with the content of what they were reading and how literacy processes were perceived. So there was a real wide cross section of activities, and the object was by the end of the process to have the kids familiar enough with the musical aspects of language that they would create their own lyrics, their own word sentences that had rhyme and rhythm, and have them play a little song of their own. So that is the general overview of what we tried to do.

What Adam speaks of here is typical of the reflections of the CAPE teaching artists in that, without being able to draw on specific references to previously constructed music-integrated curriculum examples, they draw deeply on the authentic nature of their art forms and the learning processes commonly associated with them. In this case, Adam makes connections between the essential language literacy processes of syllabication, phonemic awareness (rhyming), and inflection with the literacy processes most relevant to music listening, composing, and performance skills. Although he is an arts educator new to the demands of arts integration, Adam clearly demonstrates in both his interview and his curricular design work that he is able to draw on his extensive teaching skills to build inquiry, discovery, and reflective thinking processes into his work with literacy-challenged students.

The next interview sample reveals the extraordinary license offered to artists challenged to produce innovative arts-integrated lesson plans in the context of collaboration with teachers: permission to learn from failure. That is, the creative process of connecting arts learning to literacy learning can be achieved effectively by artists who are committed to taking risks as educators with the collegial support of partnering classroom teachers.

> **Interviewer**: Going back to the premise of reading music and how it might improve literacy and what you chose to do in the DELTA project, was the idea of music-integrated literacy a part of your background, or was it something that you invented for this particular project?
>
> **Adam Busch**: This was all brand new to me. One of the best parts of this project for me was my continual learning. And Arnie [Arnold Aprill, Executive Director of CAPE] said something to me when we first met. He said, "Take a chance," and "It's ok to fail as an educator." That's an incredibly freeing thing for someone to say because normally it's got to be a rock solid, plans in place, and the kids have to succeed the first time. This was more like, 'Ok let's go for it. Let's put the bar really high and see what the kids come up with and see what they do.' It was a pretty supportive core group of teachers who were involved at the Emmet School. They were very close with one another, and they were very helpful in giving me the guidance as to what they wanted to accomplish with this project. Literacy was a new angle on the arts education thing, because I know I needed to do more than just the music. As an opera singer, I know I can do the dramatic side of it, and I can do the creative writing side of it. But the specific focus on early childhood literacy was new for me. So I don't think I can credit anybody else specifically with giving

me these curricular ideas, but I would be surprised if they didn't come from somewhere in all the life experience I have had in working with the kids.

The Music Reading and Writing DELTA Portfolio

In all three case study schools, excerpts from the DELTA digital portfolio presented to Chicago Public Schools provide a longitudinal view of the planning work and other artifacts relevant to arts learning processes and their impact on language arts literacy studies in elementary classroom. Each of the following excerpts provides a critical piece of the DELTA music literacy unit. Taken together, the mosaic provides a framework for short-term, literacy-targeted musical studies in early elementary classrooms.

Emmet DELTA Portfolio Exhibit 1: Overview of DELTA Project Goals

OVERVIEW: Reading and Writing Music
In an attempt to enhance the language literacy components for grades 1-3, each DELTA project teacher and teaching artist developed a program in which, through music, students challenged their reading, rhyming, spelling, and writing skills in conjunction with the basic rhythmic and melodic exercises.

At first, giggles and games, guesses and questions. In the end, melody, rhythm, and lyrics, all produced by the students, then written and performed on xylophones and tambourines.

Using spelling and vocabulary lists, or weekly themes, the students composed a song 'story,' or sentences. With eighth, quarter, and half notes, those sentences were 'scanned' out syllabically and re-written with the music pitches.

Students now can read, write, and understand musical form as a measure of their musical and music-integrated literacy development in each classroom.

IVA. Figure 1

In Adam Busch's overview of his powerpoint presentation to CPS teachers, he makes the case for enhancing early literacies through music reading and writing. The hypothesis drawn from this overview is that since music reading and writing processes inherently employ fundamental concepts of sequence, proportion, part and whole, which are shared with language and math, it follows that early music literacy development serves to reinforce multiple literacies simultaneously. Thus, evidence of music reading, writing, and analysis skills become evidence of a broader and deeper understanding of literacy as it is integrated across several cognitive domains.

In the DELTA project, all teaching artists stated 'inquiry questions' as a way to insure the compatibility of action research methods with the intervention of arts literacies in the experimental school programs. These music literacy inquiry questions represent two approaches to literacy integration: (1) the investigation of fundamental concepts of literacy, such as rhyming (phonemic awareness) and symbol-to-sound translation (phonetics), that are shared between language and music, and (2) reading and writing processes or strategies (fluency of translation) that appear to work in a parallel fashion between music and language.

Emmet DELTA Portfolio Exhibit 2:

Music And Literacy Inquiry **Issue**: Word Rhyming **Question**: How can students become familiar with rhyming sounds and differentiate between visual similarities in spelling and their sounds, through music? **Issue**: Fluency **Question**: How do students use repeated music steps to become more fluent in creating a piece of music and reading it?

IVA. Figure 2

Music and Language Literacy Process: A Teaching Artist's Portfolio of Multiple Literacy-Based Lessons Through Music

The next series of artifacts and their analysis sheds some light onto the evolving process of teaching music skills and literacy processes in the context of music's connections with language literacy. The first half of the ten-week period was focused on learning musical terms and practices and how they relate to language literacy. The second half put those skills to use in the playing and reading music tasks, which were always focused on inquiry questions related to listening, creating, performing and reflecting on musical literacy processes.

The exhibits here are labeled as weeks and annotated in double entry journal format for capturing aspects of design quality that are of central importance to the DELTA study. These activities were done in the classrooms and were also presented in part as demonstration lessons for participating teachers interested in the DELTA project.

Emmet DELTA Portfolio Exhibit 3:

Week 1: Introductory Overview Lesson (with added Analytic Framework)	
Key Activities, Inquiry Questions, Content, Opportunities of Teaching for Literacy Skill Transfer	*Key Integration Factors (Cumulative)*
I) THE R.H.Y.T.H.M. SONG Get participants on their feet to sing and create rhythm	*Shared Fundamental Concepts: sound, phrase, order, sequence, structure, whole and parts, contour, rhythm, accent, dynamics, inflection, nuance.* *Parallel Literacy Processes/Skills: creating-reading sentence-lyric construction, singing-reading diction,* •
2) DISCUSS: What Do You Need To Write A Song?	*Multiple Symbol Systems: music symbols, phonemes, numbers*
3) EXERCISE: Students will offer any original 'sound' or musical phrase. Taking at least 3 such phrases—we will manipulate them into a musical sequence. Then we'll assign a group of students to perform each phrase in its order—thus creating the 'melody' for our song.	*Multiple Representations using sound, phonemes, letter, syllable, words, singing, clapping, gestures, graphic symbols to create sequences and phrases* *Multiple Intelligences: musical, linguistic, logical-mathematical, visual-spatial, kinesthetic, interpersonal.* *Multiple Cognitive Processes listening, inquiry-discovery, creation-improvisation, performing-demonstration, reflecting-revision-connection-self assessing.* **Teaching for Learning Transfer Rating•: 2.5**

•Based on curriculum description and observation during the DELTA culminating event and on videotape.

IVA. Figure 3:

The right column was added to identify key factors in curriculum design that provide ways for students to explore multiple representations of process, content, and modes of expression shared between music and language arts.

What is immediately apparent to classroom teachers and administrators participating and observing the DELTA presentation is that literacy instruction in music immediately engages multiple modes of learning, often simultaneously. When phonemes, syllables, and words are used to create melodies, the boundaries between music and language begin to overlap. While the parallel processes and shared fundamental concepts are explored, the musical emphasis predominates. In the next unit, a more singularly focused language arts lesson challenges students to engage in problem-solving tasks related to rhyming patterns while shaping the creation of song lyrics.

Emmet DELTA Portfolio Exhibit 4:

Week 2: Preparation for music integration: Language Arts Focus (with added Analytic Framework)	
Key Activities, Inquiry Questions, Content, Opportunities of Teaching for Literacy Skill Transfer	*Key Integration Factors (Cumulative)**

I) LYRIC AND RHYME PATTERNS
    1) Rhyme every line
    2) Rhyme every other line
    3) Rhyme first second and last lines
	Shared Fundamental Concepts: *sound, phrase, order, sequence, structure, whole and parts, contour, rhythm, accent, dynamics, inflection, nuance*
	Parallel Literacy Processes/Skills: *(creating-reading sentences, lyrics only from linguistic viewpoint)*
	                         •

2) EXERCISE: Create lyrics for each of the above patterns using vocabulary words and morning sentences Then, try to create a "Thanksgiving" lyric	***Multiple Symbol Systems:*** *(only language)* ***Multiple Representations*** *Using linguistic symbols to create lyrics to be set to music* ***Multiple Intelligences****: linguistic, visual-spatial* ***Multiple Cognitive Processes****: listening/perceiving, inquiry/investigation, creating/improvising, performing/interpreting, reflecting/connecting* **Teaching for Learning Transfer Rating•: 1.5**

    *Key Factors are only listed once, when they are first observed.

IVA. Figure 4

Emmet DELTA Portfolio Artifact 1:
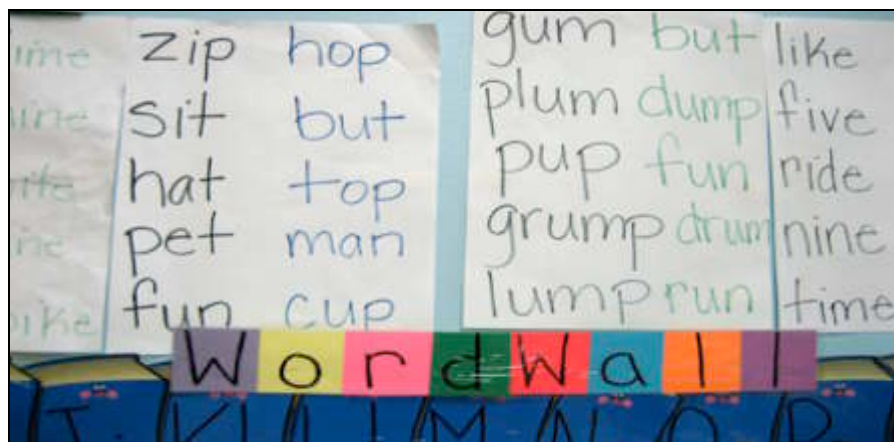
IVA. Figure 5:
The Word wall provided by the academic teachers became the reference for this second lesson plan.

While the focus on the goal of lyric writing is clear and the combination of learning processes is rich, the connection to music in this lesson is relatively peripheral compared to the ensuing lessons [compare "Teaching for Transfer Ratings in Figures 3-4, 5-6].

The following curriculum pieces contain the highest degree yet of music-infused literacy instruction. The lesson plan below engages an astonishing array of multiple modes of learning, often simultaneously. When words, phrases, sentences, and rhythm patterns are combined to create musical lyrics, the learning modalities, use of symbol systems, and underlying cognitive processes multiply extensively. Words are spoken in and out of rhythm and gestures, and visual representations abound as children are challenged constantly to compose-perform-critique-revise. Thus, to the extent that explicit references are made to children or teachers to parallel processes or shared fundamental concepts between music and language literacy, they are apt to experience these connections in multiple reinforcing ways.

Emmet DELTA Portfolio Exhibit 5:

Week 3 & 4 Lesson Structures (with added Analytic Framework)	
Key Activities, Inquiry Questions, Content, Opportunities of Teaching for Literacy Skill Transfer	*Key Integration Factors (Cumulative)**
I) RHYTHM AND BEAT Introduce Whole, Half, Quarter, and Eighth notes. Discuss the values of each note.	***Shared Fundamental Concepts****: units, parts-whole, proportion, axiomatic-conditional reasoning, one-to-one correspondence rhyme, sentence, sound, phrase, order, sequence, structure, whole and parts, beat, rhythm, accent, dynamics*
2) TEACHING FOR TRANSFER Inquiry Question: How are beats and rhythm patterns like syllables?	***Parallel Literacy Processes/Skills****: counting, multiplying, dividing, if-then problem solving, creating-reading sentence, poetry writing-song lyric writing, speech – musical diction* *
3) EXERCISE: Write students name on paper using music notation. Add sentence: "I can read/write music" and have them musically 'spell' it out. Have students clap out rhythmic patterns. Add words/sentences to those patterns Example: " Good morning my name is_____" Play "Rhythm and Rhyme" (stomp, clap) I say HAT, you say _____?	***Multiple Symbol Systems****: music, math, linguistic symbols* ***Multiple Representations:*** *using sound, letter, syllable, visual-spatial placement, words to represent components of lyrics set to music* ***Multiple Intelligences****: linguistic, musical, visual-spatial, logical-mathematical, kinesthetic* ***Multiple Cognitive Processes****: inquiry- analysis, investigation-discovery, reflection-self assessment-revision, performance, creation-invention*
Take musical knowledge quiz for review.	**Teaching for Learning Transfer Rating: 3.5**

*Key Factors are only listed once, when they are first observed.

IVA. Figure 6

While the early lessons proceeded, sample student work was collected along the way. The DELTA portfolio offers intriguing examples of arts-integrated literacy learning taking place during the music-language unit.

Teachers and teaching artists participating in the DELTA project discover that language literacy skills can operate in an integrative fashion through music literacy instruction. First grade students can learn to write out note values to fit the syllable patterns and/or speech patterns of their names, as well as sentences that, in addition, are designed to affirm their ability to learn.

The sentence "I can write music" set to quarter and eighth notes (notes that are proportionally defined at the ratio of 2:1 differences in duration) can serve as evidence of integrative learning to teachers and students when assessing children's ability to map the relationship of syllables, stresses, and speech patterns to the rhythm notation, as in the example below.

Emmet DELTA Portfolio Artifact 2:

IVA. Figure 7
Immersion in music literacy tasks is enthusiastically embraced by many students
as an alternative entry point and symbol system for reading and writing.

From the perspective of the DELTA project, teachers can see that a student's desire to rap is motivated intrinsically by the musical impulse to incorporate challenging, powerful rhythm patterns to heighten the impact of words. The phrase 'I like to rap' and its answer 'and wear a cap' represents an important first step toward controlling the interplay between rhythm and words or musical form and meaning, which can lead to an increased interest in poetry or rap, and an ear for nuance, pace, and dialect in prose writing, storytelling, or drama.

Emmet DELTA Portfolio Artifact 3:
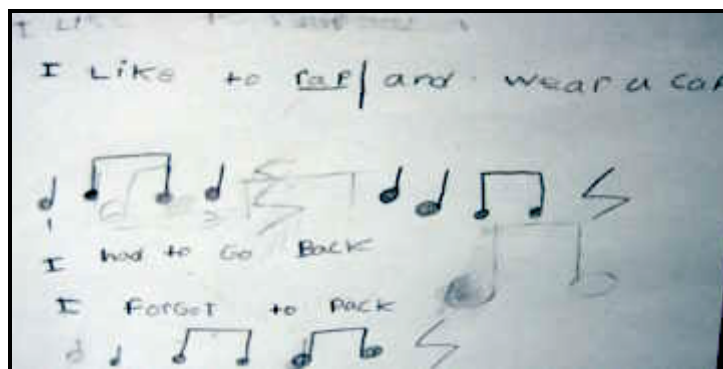
IVA. Figure 7
An early example of text-setting tasks.

Over the course of the DELTA unit, music and language literacy activities are modified according to the degree of concern for immediate learning transfer and the natural inclination toward multiple modalities of learning processes. In weeks 6 and 7 (not shown here), the portfolio artifacts reveal a relatively low level language literacy integration focus on issues such

as the musical alphabet and scale steps, the octave (essentially addressing math and music integration), and the concept of harmony in music. During these lessons, Adam Busch stresses the importance of a *third literacy dimension*: number awareness and its application to musical, and by implication, linguistic structures. By the ninth week of the unit, students re-apply their understanding of music to language literacy by accompanying stories with tambourines and filling in song-starters with final phrases, a relatively high level of music-language integration.

Emmet DELTA Portfolio Artifact 4:

IVA. Figure 8

Working process snapshot of students using tambourines and xylophones to harmonize their storytelling with a rich texture of melodic patterns and rhythmic gestures in the final lesson of the DELTA unit.

The culminating lesson primarily served the purpose of getting students to reflect on their work and on the nature of music-literacy teaching and learning. Reviewing vocabulary words, listening to original compositions, and writing two-part music (two melodies or melody accompanied by a rhythm) brought the concept of harmony to bear on differences between music and language literacies, as well as the similarities.

Reflections On The Music SEAL Performance Assessment Task

At the beginning and end of the DELTA unit, Adam administered the music version of the Snapshot of Early Arts Learning (SEAL) assessment.

The SEAL music test required students to look at a poster that displayed graphic representations of basic rhythm and pitch patterns. They were given a series of 16 words, all of which had at least one rhyming partner. Each student was asked to pick two rhyming words, make two sentences with those words placed at the end, and then 'sing' their new sentence with the rhythm and pitch pattern depicted on the poster.

This exercise posed a few inquiry questions: Could the students recognize rhyming words? Could they put sentences together as instructed (rhymes at the end)? Could they match syllables with the allotted beats, and could they distinguish high and low sounds based on visual clues?

During the pre-test many students struggled with all aspects of this exercise, though some did understand trying to fit the right amount of syllables into the spaces provided. Adam recounts the daunting experience of starting off his unit with new kids and having to find out what they could do:

> **Adam Busch**: It was terrifying the first time. I came home feeling like a complete failure. I stood the kids in front of the board that had vocabulary words on the bottom. All words had at least one rhyming partner, and there were just lines and dashes at different heights representing pitch and melody. They couldn't find a rhyming word, they couldn't scan the amount of dashes to come up with the appropriate rhythm, and it was terrifying. I was meeting strange kids for the very first time, and I'm running a video camera and putting something in front of them they've never seen before, and maybe, maybe two or three of them were able to find rhyming words, which was, at that point, hopeful.

Later on, Adam's commitment to baseline testing of both musical and language literacy skills enable him to see the progress students had made on the repetition of these tasks as a post test. Adam continues:

> **Adam Busch**: As a post test, the same exercise was given to the students. Though still difficult, a major improvement in identifying rhyming words and understanding the 'rhythm' of the sentence was seen. Almost all the students could clap the correct rhythm before attempting to place their sentence into it. Their sentences also improved in content and storytelling—they actually made sense!
>
> **Interviewer**: How did you feel about these results?
>
> **Adam Busch**: Unbelievable. It was great. The rhythm aspect of the SEAL test I would say across the board these kids would get up and they would find their rhyming words without copying what their classmate next to them did. So they were able to either make a change or find different rhyming words, but in either case they could get up there and they could clap out the rhythm correctly or successfully. In addition, the second SEAL test I replaced the dashes with conventional musical symbols. To see the kids get up and clap out the rhythm completely from beginning to end was wonderful.
>
> **Interviewer**: And they were also saying names, or were they just clapping?
>
> **Adam Busch**: This was an exercise that we had done a little bit in class when they were doing lyric writing, so this was not a strange request the second time. However, there were certain traps too. Yes and no were on the list – they do go together, but they don't rhyme. But they would get up, hopefully put their sentence into the structure of the measures of music that were in front of them, and attempt to sing it. The melody aspect of all of this, without the instruments,

was not as successful. But if they still had a hard time putting their sentences into the structure of the phrases in front of them, they could all at least clap out the rhythm that was in front of them on the paper, and that was pretty cool.

The SEAL pre and post tests were not the only method for documenting arts-integrated learning in the classroom. Assessment artifacts such as spelling and phonics tests, DIBELS (Dynamic Indicators of Basic Early Literacy Skills) test scores, and audio recordings of repeated readings provided evidence for growth in language literacy skills.

In the DELTA portfolios classroom teachers also testified on the impact of the music and arts program on their students. In this case, the cited evidence of impact was reflected in spelling assessments: gradual improvement in sounding out segments of words (syllabication), *especially* consonant sounds associated with their emphasis on their coordination with musical beats. According to the partnering teachers, "through finding rhythms in music, students are more apt to phrase and chunk appropriately, as well as read more fluently and expressively. By determining the beats in music, students practice syllabication, which helps with both phonics and spelling."

Emmet DELTA Portfolio Artifact 5:

IVA. Figure 9

Music- and arts-integrated literacy also creates an impact on the classroom culture and climate. Teachers found that the students were very proud of their work in music, and displays of music-language literacy work found their way onto the classroom walls.

Another measure of integration in the classroom culture was the recognition of goals that arts and language literacy hold in common. In the course of the DELTA project, classroom teachers and teaching artists alike discovered the value of synthesizing understanding of standards in unfamiliar disciplines in the context of integrated instruction and learning. For the first time these classroom teachers could claim to meet both arts and literacy standards for the purpose of improving language literacy. The standards listed in their portfolio, and displayed below, were discussed in their presentations to other teachers. Through the curriculum plan of creating lyrics and setting them to musical patterns, the classroom teachers (and the other CAPE visual artists at the Emmet school) were able to meet the following Illinois State Standards:

Illinois Standards - Fine Arts Content

State Goal 25: Know the language of the arts.
>   Standard A. Understand the sensory elements, organizational principles
>   and expressive qualities of the arts.
>   Standard B. Understand the similarities, distinctions and connections in
>   and among the arts.

*State Goal 26: Through creating and performing, understand how works of art
are produced.*
>   Standard A. Understand processes, traditional tools and modern
>   technologies used in the arts.
>   Standard B. Apply skills and knowledge necessary to create and perform
>   in one or more of the arts.

Illinois Standards –Academic/Literacy Content

State Goal 1: Read with understanding and fluency.
>   Standard A. Apply word analysis and vocabulary skills to comprehend
>   selections.
>   Standard B. Apply reading strategies to improve understanding and
>   fluency.

In the portfolio, Jurrate Moore, one of Adam Busch's collaborating DELTA teachers, offered the
following observation regarding a student who, prior to the music integration unit, resisted
participation in the language literacy classroom activities:

>   **Jurrate Moore**: Jason was so excited to hear that we were going to have music
>   with Mr. Bush every week. He was always the first one to remind the rest of the
>   class that we were going to have music that day. Now, please be mindful that
>   Jason is one of my students who struggled a great deal in reading and writing, but
>   he was really been able to actively participate in music.
>
>   One activity that I witnessed him participate in and really enjoy, was one where
>   the children were creating a song using one week's spelling words. The song was
>   composed of words that rhymed. Mr. Busch allowed students to raise their hands
>   and come up with the verses. Jason raised his hand so many times that we had to
>   inform him that it was a song to which the entire class would be allowed to
>   contribute.

Reaching out to the most literacy challenged kids requires transformation of the social-emotional
climate of the classroom as well. Below, Adam reflects in the portfolio on the change observed
in another student whose alienating behavior, previous to the injection of music into the
classroom, had prevented him from participating in literacy learning activities.

>   **Adam Busch**: For the first five weeks or so, Enrique was in and out of class—
>   mostly out. Always in the hall or the assistant principal's office. He never had
>   much to say to me, and all I observed was a violent, large, disturbance in class.
>   Something happened though when he was given a tambourine to accompany a
>   story. He understood the responsibility, and to my surprise, even understood the
>   music. As he used his hands to beat out rhythms – instead of beating on his

classmates – he became deeply invested in the successful 'sound' he and his classmates were creating. His loud voice and presence became a rallying point for the rest of the students, as he urged *their* better behavior and participation. Now Enrique and I had a lot to say to one another.

This was something he was good at and proud of. A few times he even did his schoolwork just to be in a position to participate in music class. Please don't misunderstand. There were no miracles here. I still saw Enrique in the hall and I the assistant principal's office – but I wish they'd have seen him in the DELTA music class.

The impact of the DELTA program can also be gauged by the obstacles, discoveries, and generative ideas that stemmed from the process of innovative program development. In this DELTA portfolio, what began as an action research project created to examine learning transfer and reinforcement between two domains of literacy resulted in ideas for expanding the presence of music in schools based on an understanding of the challenges and surprises described by this DELTA case study school. Reflections on the challenges, surprises, and future revision in the portfolio indicate that genuine standards-based music learning can also provide much needed support for a school's behavioral and language literacy goals.

Emmet DELTA Portfolio Exhibit 6:

<div style="border:1px solid black; padding:8px;">

<u>DELTA Project Challenges</u>
- Behavior management and student receptiveness
- Ensuring the integration of art with reading curriculum
- Collecting useful documentation/assessments

<u>DELTA Project Surprises</u>
- Extensive musical knowledge obtained by students
- Students' perseverance and participation during challenging exercises

<u>Ideas for Future DELTA Projects</u>
- Using music to keep children on-task
- Translating more repeated readings and poems into musical pieces
- Using instruments to narrate a story and find syllables in words/sentences
- Integrating music with other subjects

</div>

IVA. Figure 10

Summary of the Emmet School Case Study

As a CAPE teaching artist responsible for creating the DELTA music-integration unit, Adam Busch chose to explore music and language reading and writing skills as parallel literacy processes. Interleaving language and music symbols, his students investigated the musical-linguistic concepts of rhyme, syllabification, and scansion as they took up the challenge of setting their vocabulary words to their own melodies. Accordingly, Adam believes that the melding of language-music literacies stimulated a broader and deeper understanding of general symbolic literacy. This understanding was achieved through a blending of composition, performance, listening, analytic, and reflective thinking processes that relied also on mathematically precise spatial-visual representation.

The following case study features a multiple arts model of early literacy development that evolved as theater and visual artists collaborated with each other and the classroom teacher to develop increasingly cohesive "multiple arts" integrated DELTA curricular units.

IVB. DELTA Case Study Report 2: Miles Davis Academy

Miles Davis Academy:
Interleaving Theater, Visual Arts, and Literacy
through Acting, Playwriting, and Bookmaking
Based on artifacts and interview data provided by
Kevin Douglas, CAPE Theater Teaching Artist, Mary Tepper, CAPE Visual Artist, and LaShaun
Woodland, Third Grade Classroom Teacher in the Chicago Public Schools

*

Over the three years of the DELTA project at the Miles Davis Academy, the collaboration between Kevin Douglas (theater teaching artist) and Mary Tepper (visual artist) resulted in a highly integrated classroom ethos of arts-integrated teaching and learning in LaShaun Woodland's third grade classroom. In contrast to the other two case study reports, the Miles Davis DELTA unit features the melding of two art forms in order to focus on fundamental aspects of literacy skill development as measured by the understanding and creating of stories. Thus, the themes surfacing in the Miles Davis DELTA Portfolio work have to do with creating a culture of engaged arts and theater enriched language arts learning through acting, storytelling, story writing and story illustration.

The DELTA arts integration strategies were threefold: (a) engage *a heightened perception of story structure, character, and circumstance* in fables from multiple media and art forms; (b) *invent and enact story and characters* in dramatic play; and (c) *employ visual illustration and highly distilled descriptive language* to create storyboard 'accordion' books to express an understanding of the elements and principles of literacy. The threefold arts integration strategy evolved in the third year as a seamless collaboration between theater and visual arts. Both teaching artists worked on designing and revising the units and discussing their implementation with the classroom teacher. As a result, the smooth transitions throughout DELTA activities – from reading fables to story writing to drama and to visual arts – created a continuum of entry points and investigation into the story-based literacy skills from the perspective of both the literacy teacher and the students.

> **Interviewer**: Are you saying that more things are fitting together, and you are learning how to do that, and that the artists are supporting what you're doing with literacy?
>
> **LaShaun Woodland**: Yes, everything that took place in the session, we talked about before the session and after the session. My students looked forward to them coming into the classroom. They knew that on one day, "Here comes Kevin Douglas, the actor and writer" and on another day, "Here comes Mary Tepper, the visual artist and book maker." Kevin and Mary worked on the same field, the same topic, and that was the plus of everything. The story that the students created could work with Kevin putting the elements of the story on construction paper and with illustrating the story in Mary's accordion book. Everything tied together, they were doing the same thing – especially when compared to last year when the teaching artist was less connected with what Mary was doing.

After Kevin helps the students create their own stories through a series of acting, brainstorming, and homework assignments, Mary creates storyboards with them.
Kevin uses acting devices to discover elements of character traits and relates their actions to the character's desires, the obstacles that stand in the way of their goals, and problem-solving actions that transcend these obstacles. Thus, the understanding of character is defined through acting and writing and reading skills, while Kevin's activities produce a context for Mary bridging visual art and storytelling through her accordion books. As she describes it, getting students to do "a little bit of writing while developing artistic skills" is a way "to use art to bridge or connect the gap between genuine literacy and the struggle with reading and writing."

How does this tandem of artists help bridge the literacy learning gap in students?
Kevin and LaShaun are confident that allowing a deeper exploration of character, action, and setting generates more interest in basic literacy skills as well as the higher order thinking required to participate in the acting activities, the brainstorming sessions, and the observation tasks. For Mary, once the stories are created by the students, bookmaking is easily integrated into the classroom because "kids are already familiar with picture books, and when they do create their own book based on their own stories, they're much more invested in the literacy processes necessary for the production of a finished book, and because this book will be read by their classmates."

The Arts and Literacy Classroom Connections Between "Reading, Acting, and Creating Stories" and "Bookmaking Processes"

The CAPE theater and visual artists decided to work to together to align their focus on literacy through dramatically sound and richly illustrated storytelling. A ten-lesson model DELTA unit was designed to inspire students to learn how stories work and how to create their own stories using *Aesop's Fables* and their analyses of television show plots as starting points. In the portfolio exhibit below, the classroom teacher, LaShaun Woodland, states a literacy problem facing many urban school teachers and a strategy for solving the problem through artistic processes that involve creative choice. Both LaShaun and Kevin Douglas, the teaching artist, believe that allowing for more creativity will more effectively allow students a more sophisticated understanding of writing structures and processes.

Miles Davis DELTA Portfolio Exhibit 1:

> **LaShaun Woodland, DELTA Classroom Teacher**: The problem we were trying to solve was that the students were not interested in writing. When they did write, it was dull and almost impossible to read. I was determined that by working with this artist I would find a way to make writing more interesting for my students and to find a way to make teaching writing more exciting and satisfying for myself. In the beginning I started by giving them topics to write about, but when I allowed them to come up with their own topics it was much easier for them to get into their writing. Our theory for improving student writing was that by introducing them to sophisticated structures that playwrights use to write real plays, the students' writing and enthusiasm for writing might improve.

IVB. Figure 1

Kevin reports that by introducing students to the idea that playwrights build stories around characters' desires and their encounters with obstacles, students were better able to develop characters and interesting actions in their peer work and in their own stories.

Miles Davis DELTA Portfolio Exhibit 2:

Kevin Douglas, CAPE Theater Artist: The kids' ability to retain the information, and the excitement they had learning and executing story structure, were pleasant surprises. I knew that they would get it, but I did not think they would get it so quickly. They learned how to use deductive reasoning to make their stories make sense: The *failure* of the character's actions has to connect with the previous *action,* and the *resolution* has to connect with what they *want*, and whether or not they get what they want is up to the writers of the story, which of course were the students. There were usually three or four resolutions, so I would have the kids vote by raising their hands. Something I told them at the beginning and end of the program was that they will be able to use story structure for the rest of their lives in everything they read and watch.

IVB. Figure 2

In the first units, the classroom teacher and the two teaching artists wanted the students to stop believing that they couldn't write. Thus, the students were introduced to the idea of improvisation as a way of developing stories. They were taught the structures of improvisation and were given free rein to explore these concepts.

The artist reintroduced the key concepts at the beginning of each session, and the teacher made sure in between artist sessions that the students continued the work.

The first session was designed to see "how the kids work and figure out who the outspoken ones were, the shy ones. It's mainly to get them comfortable and to have a little fun." The important objective of the 2nd and 3rd sessions was "to always ask the students why they made their choices, so they could see why something did or didn't work. That's why we always let them work out their own problems."

Miles Davis DELTA Portfolio Exhibit 3:

1st Session: Improvisation.
We did 'setting improvisation.' They created an environment with space work (or mime).
Environment examples: character acting in a kitchen or a car.

2nd Session: Defined Three Elements of Story Structure: Want, Obstacle, and Action.
•1.**Want**: What does the character want?
•2.**Obstacle**: What gets in the character's way?
•3. **Action**: What is the character going to do about it?
We read 2 of Aesop's Fables, then found the want, obstacle, and action with regard to the characters.

3rd Session: Reviewed elements of story structure by reading some more of Aesop's Fables and playing improv games.

IVB. Figure 3

Kevin Douglas: In each session I would break down how story structure worked. I didn't overwhelm them with everything at once. Basically I would have them give me a character, or give me two characters, and then we would develop a story based on those characters. I told them how a story structure worked, like we would start with one character and ask what that character wants. And then they would choose what the character wanted. They would choose an obstacle, something that gets in the character's way, and then we would choose an action,

something the character does to get what they want. That was the first couple of sessions. Then they would create their own stories and an environment for where the story took place.

> **Kevin Douglas:** After the first three lessons, students found that they were able to analyze the story structure of both the stories we were reading in class and their favorite TV shows (cartoons or sitcoms) or movies they had all seen. We wanted the students to see that they could apply what they were learning to any story structure by picking a character and describing their 'wants, obstacles, and actions.' Later on, the students discovered they could even write about their teacher and about familiar experiences, such as wanting a Snickers candy bar!

Added to the mix in later lessons were the concepts of failure and resolution: What happens when something goes wrong in the action? Is there resolution, or is further action needed? Do the characters get what they want or not? The story structure map below (Portfolio Artifact 1) illustrates how students discovered and anticipated a growing complexity in their narrative perceptions and creations, in this case in finding a plan for procuring a Snickers bar.

1.Want
2.Obstacle
3.Action
4.Failure
3.Action
4.Failure
3.Action
5.Resolution

By the sixth session students began to express their growing understanding of storytelling through creating storyboards of their previous stories or as a process for inventing new stories. The storyboard process required students to visualize the narrative structures that they were at this point creating regularly. Storyboarding provided opportunities to add extra details to fill out the story, perform a 'setting improv' of the environment where the story takes place, and then finish an 8 panel storyboard with Mary Tepper.

By the eighth session students were collectively and individually breaking down story structures to find out if some stories have more or less actions than failures. Although the artist and the classroom teacher were worried that confusion might result from this complex analytic process, they were gratified that the students were able to discover that Aesop's Belling the Cat had less actions than failures and that The Crow and the Pitcher had more actions than failures.

At this point the arts learning processes began to affect the classroom culture collectively and pervasively. Literacy challenged students were now able to draw on models selected from their storytelling literature and popular media that motivated and enabled them to write *literately* within sophisticated narrative frameworks.

Miles Davis DELTA Portfolio Artifacts 1-2:
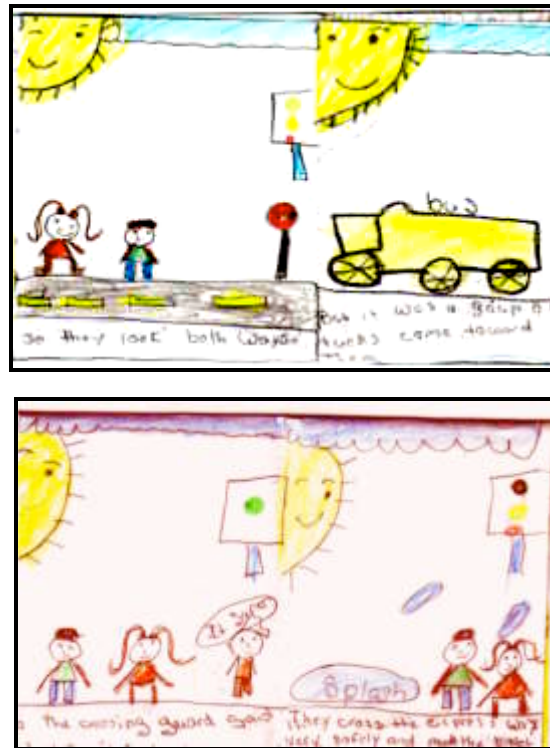
IVB. Figure 4-5:
These four storyboards were assessed for their level of dramatic clarity and visual detail of storytelling.

The two storyboard excerpts above suggest how third graders approach the obstacles to crossing a street safely: looking out for vehicles, reading the stoplight, listening to the crossing guard, and avoiding rain puddles! Ms. Woodland and the artists observed an evolving sense of literacy skills: grammar, vocabulary, cause and effect statements, dialogue, visual and aural detail (perhaps onomatopoeia) stemming from characters, circumstance and dramatic action motivated by a framework of desire, action, failure, and resolution.

The classroom dynamics became more sophisticated as well. Multiple modes of learning were used to explore fundamental concepts and parallel processes shared across the several disciplines, much like the processes described in the Emmet and Sumner Case Study Schools. Furthermore, strategies for differentiated learning were employed to engage the whole class in arts-integrated learning.

> **Kevin Douglas**: As educators we found a variety of strategies for supporting independent student thinking. We found that by putting together interesting groups of students – strong artists with strong writers and students with a variety of leadership abilities – students were able to find ways to contribute so that they all felt valued and important. Despite our interest in supporting group work, we found that one student did his best work while working solo, and we arranged for him to do so.

In the ninth session students created their stories in the small groups. One of the strategies to ensure that each student contributed to the group story was to give them individual responsibility for a piece of the story structure. In the final steps of the storymaking process, students had time to fill in the missing parts (or the extra details), and then they shared their stories with each other, creating enormous community bonding experiences to support Ms Woodland's and the artist's literacy learning goals.

> **LaShaun Woodland**: So what ended up happening was we were collaborating all the time, not just at the school. We exchanged phone numbers, and I was able to call him and ask him many questions, and he'd say "Well, did you understand?" and "This is what I'm trying to get over to the children." And when he first started off with the class, he did improv with the students, he loosened them up, you know, just to get to know him and for them to feel comfortable. He had a lot of group activities as well them working on their own. And when he had them working in groups, we always asked some of the stronger students to work with some of the weaker students, and that way it lets my stronger students know not to take over the project, but instead to just work together, be a helping hand but don't dominate any of the other students.

From Mary Tepper's viewpoint, her role in arts-integrated literacy teaching process was "to use art to bridge the gap" in literacy skill development for those students who struggled with reading and writing, "making it interesting for students to do a little bit of writing while also developing artistic skills." Pressed further to explain exactly why bookmaking is a crucial step in the DELTA unit, she elaborates on the factor of integration:

> **Mary Tepper**: I think it's a really important connector to literacy skills, because bookmaking is so easily integrated into the classroom. Kids are familiar with books, either picture books or their textbooks, and when we give them the opportunity to create their own book where they create their own story, they're much more engaged in the process and their own literacy skills, because they actually walk out with a finished book in the end. It gets them more invested. So I think it was successful in terms of getting to the children who struggle with reading and writing.

In the DELTA portfolio, Mary reflects on the process of art making in relation to specific issues of language fluency while developing independent thinkers. The teaching issues explored focused on how to reinforce arts-integrated teaching practices in the classroom. The documentation presented in the portfolio demonstrated these goals by continually emphasizing the books as evidence of literacy skills revealed as sophisticated art making stemming from student dramatic conception.

*Collective brainstorming of story structure reinforced both collaborative thinking and
    independent thinking.*

The tandem of DELTA theater and visual arts storytelling activities produced multiple
opportunities for collaborative work grounded in principles of storytelling shared across
disciplines. The photo bellows captures the discussion of a DELTA brainstorming session that
resulted in determining eight components of story writing regardless of its expression in words or
drawings.

Miles Davis DELTA Portfolio Artifact 3:
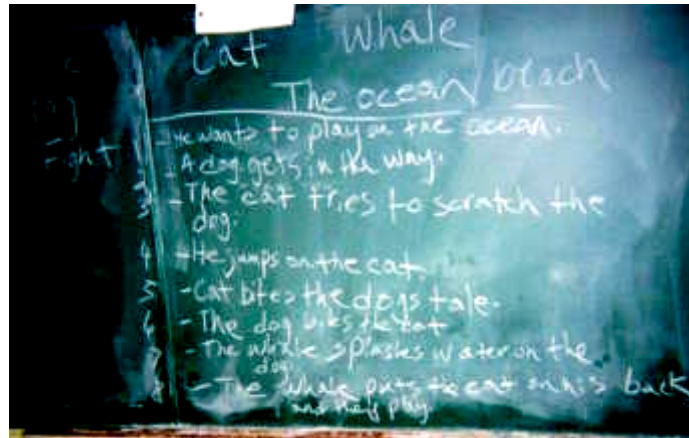
IVB, Figure 6

Kevin Douglas: Getting to see how a playwright thinks right there on the blackboard
helped the students know they could do it. We worked on increasingly complex and
sophisticated stories and found that the students met the new challenges easily,
developing their abilities to make good inferences.

Miles Davis DELTA Portfolio Artifact 4:

IVB. Figure 7

Ms. Woodland reports that students demonstrated renewed interest in language arts activities
through rigorous story writing tasks that engage their imagination. Kevin corroborates this
finding in his interview:

Kevin Douglas: When students are doing scene writing or acting, in fact they're very involved with language literacy in a fundamental way in terms of problem solving and higher order reasoning.

It's just amazing how kids were able to give examples of why certain things did not make sense, or why the story did not make sense, or why the story could not go in a certain direction – or vice versa, why it did go in a certain direction. To see that change from the beginning of the program to the end, it's just . . . it was just great!

Evidence of collaborative and independent thinking was also seen when students shared drafts of storyboards that showed the process of their work.

Miles Davis DELTA Portfolio Artifact 5:

IVB. Figure 8

LaShaun adds that the public displays of the bookmaking process also provided students with extra occasions to demonstrate literacy development:

LaShaun Woodland: Over the course of the unit, students traded the books they were reading across classrooms and read out loud to each other, showing significant improvement in their reading fluency.

The portfolio artifacts below provide a look at the standards of bookmaking as a strategy for arts-integrated literacy learning. Visual literacy skills are displayed in the detail of the objects and the relatively consistent spatial placement of objects. Dramatic literacy is demonstrated by the logic and artfulness of the storytelling. The first solution to the desire for strength failed: the fruit got smaller, while the character got fatter. The final scenes of the story provide a resolution: exercising contributes to strength, as depicted by both the weights in action and character's show of strength as the weights are suspended in air!

Miles Davis DELTA Portfolio Artifacts 6-7:
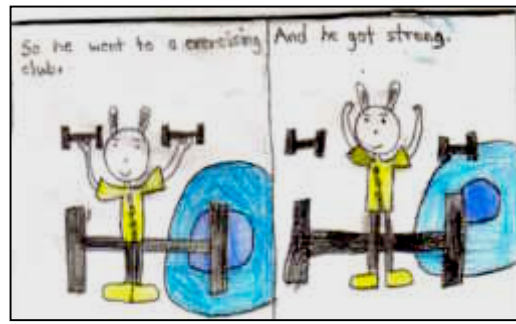
(Scenes 3-4)   (Scenes 7-8)

IVB. Figure 9

According to Mary, Kevin, and Ms. Woodland, providing opportunities for multi-modal storytelling motivates the struggling reader and writer to develop the necessary independent and creative thinking needed to understand the value of literacy as a mode of personal expression, in contrast to writing as an exercise in forced compliance with the rules of phonetics or grammar.

DELTA Literacy Development Assessment

In this DELTA school, assessment of student language literacy skill development builds on the consideration of rich documentation of student work, as demonstrated in these portfolio exhibits and artifacts. The assessment process also included gathering samples of student work to monitor the development of more conventional aspects of literacy skill assessment. The exhibit below demonstrates, according to Ms. Woodland, that "the writing samples did change from the beginning of the year. My students that started out writing nonsense words have improved, in that I can understand their writing better."

Miles Davis Portfolio Exhibit 4:

(Beginning of year sample)

(End of year sample)
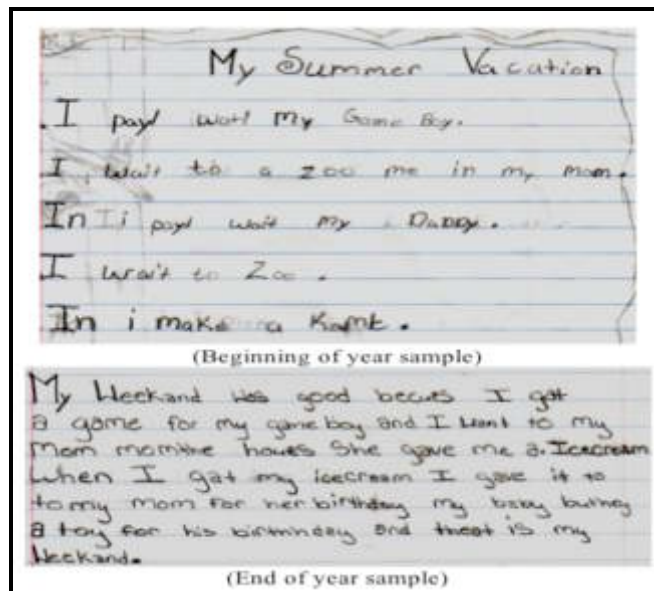
IVB. Figure 9
Pre-post literacy work samples of students participating in the DELTA project.

Findings

LaShaun Woodland, Kevn Douglas, and Mary Tepper all provide 'statements of findings' in the Miles Davis Portfolio that point out the strengths of the DELTA project from very different perspectives. From the classroom teacher's viewpoint, the success of the project is about the reinforcement of, and engagement in, language literacy learning that created positive changes in the dynamics in the classroom culture.

> **LaShaun Woodland:** I think the 2005 - 2006 school year has been the most productive year with the programs. I think it was because the theater artist, Kevin Douglas, and the bookmaking artist, Mary Tepper, worked on the same literacy skills. They both discussed fables and story structure as it relates to literacy. All of my students were able to participate. I placed some of my stronger students with the students that were having some difficulties writing, and that made a difference. The students that have difficulty reading and sentence comprehension did show some improvement when it came to preparing for this project.

In the DELTA project, the presence of artists not only helped construct arts integration lessons that reinforced literacy goals while engaging student participation, but they also provided a different perspective on the assessment of student work. From the point of view of the drama literacy activities, Kevin sees success in terms of the levels of student engagement and sophistication in the creative process of storytelling. He believes that increased levels of information retention and deductive reasoning stem from students having worked collaboratively and independently with the storytelling and consequent bookmaking processes.

LaShaun's collaboration with a theater artist produced something she had never seen in her students before: a transformation in the engagement of the most literacy challenged students in her class.

> **LaShaun Woodland**: What Kevin and I did together was we transformed students who were really not interested in anything, who were having a hard time reading, and we were able to pull out of them some of the strongest skills that they probably didn't know they had.

Thus, with the surprise of the artist as to how quickly the student learns the artistic process behind storywriting, the classroom teacher sees a new access point into skills "they didn't know they had." While growth in writing skills are obvious for most students by the end of third grade, the ability to act, create and illustrate literacy skill was a process of discovery for both the student and the classroom teacher.

Like the theater artist, the visual artist can specify the growth of arts skills and their integration with literacy skills during the course of the DELTA project. When asked about evidence of artistic development, Mary Tepper responded as follows:

> **Mary Tepper**: I think it definitely shows in the pre and post tests, in the students' visual understanding of creating a composition with foreground and background and the arrangement of the objects on the page. In the pre test, things are just kind of floating on

the page, and then eventually it's grounded and there's a background and there's a little bit more detail and the writing as well.

The process of developing arts skills yield much more than ideas about layout and detail. The creative choices behind these details bring a new sense of ownership to the ability to communicate through language.

> **Mary Tepper**: I think it's part of the project to give them ownership, because once you start asking them questions it's their personal opinion. What they decide, that's where the ownership takes place. Because nobody else has chosen this elephant to write about, the student assumes ownership in developing their story and making their story unique.
>
> … and once the image is created, kids really try on the written part, because they want their story to succeed. I remember this past year, particularly in the first grade, they didn't know how to spell different words life 'giraffe' or how to use adjectives or adverbs or even verbs, and they were asking me as well as the teacher how to spell it, because they wanted their stories to be conveyed to the reader, whoever that may be. And they wanted it to be spelled correctly. So I think because they worked so hard on the image, and they have their story in their head already and they know what their character is going to do, that they really put a lot of effort into the writing to convey what's going on. I think because they have ownership in the image, they put effort towards the writing ability. Doing a rough draft first, correcting it, sharing it with their classmates, having their classmates correct it, and eventually having their teacher correct it was a process they were so thankful for, because they were so concerned about how the writing appeared below the pictures. They wanted it to work together.

Mary and other CAPE artists appear to believe that the students' artistic process should begin with an assumption that 'there are no mistakes, just find out what you want to do'; however, later on students develop an overwhelming desire to express the story precisely in words – to tell what the story is really about and what the image really means in relation to the story. Thus, in the dramatically and visually rich DELTA units, a student's desire for correctness in word usage, spelling, or syntactical understanding stems from the desire to express his/her own visual and dramatic imagination for storytelling to others.

Student Reflection on the DELTA Project

In the final section of the portfolio, the students offer their views on the components of the DELTA project in ways that define the value of arts integration to their aspirations to learn. These comments have been organized according to their level of descriptive detail, cause-effect links, and perspective taking. Proceeding from concrete to relatively nuanced understanding of the activities and goals of the DELTA unit, these comments provide evidence of an emerging level of discourse about the ways in which arts integration instruction enhances literacy instruction. This commentary also shows that students come to understand that, through their engagement in their own creative story telling and illustration, they are connected to the essence of literacy skill development.

An Analytic Framework for Student Reflective Thinking

Asking students to comment on their own understanding of the Miles Davis DELTA project provides evidence of their understanding of arts-integrated teaching and learning strategies. The follow-up questions *in italics* represent the need for further investigation into the relationship of arts learning to literacy learning that were raised in the SEAL interview responses described later in this report.

Main Inquiry Question: *What did Kevin Douglas and Mary Tepper teach you to do, and what did you learn from the DELTA project at our school this year?*

Level One Response: Broad and relatively undetailed description. No attempt to explain connections established between arts and literacy activities.

> Student Response: "When Ms. Tepper and Mr. Kevin came, we learned many new things each time. We learned how to draw pictures to express what we are writing." – *How do pictures help you understand aspects of the story that cannot be expressed solely by words?*

> Student Response: "Every since Mr. Kevin and Ms. Tepper have been coming to my class, they have been teaching the same things. They taught us to make a story and how to create a character. It was fun working with both of them." – *What are differences in the way drawing and acting can tell a story? Why do you think you had fun working with them?*

Level Two Response: Some detail in the description of class activities, but little description of the connections established between arts and literacy activities.

> Student Response: "I really enjoyed Mr. Kevin and Ms. Tepper. I learned how to make my own accordion book. We learned new vocabulary words and they are: action, obstacle, failure, want, and resolution. Those were used for making a storybook." – *How exactly did the vocabulary words connect with the story making process?*

> Student Response: "From Mr. Kevin, I learned obstacle, action, resolution and fables. Action is something you do to get something, obstacle is what gets in your way to stop you from getting what you want, fable is something that is made up and teaches you a lesson, and resolution is when you get what you want. With Ms. Mary, I have learned to use the same words Mr. Kevin taught us to make a book." – *Can you show me in your work how you accomplished these parts of the storytelling process?*

Level Three Response: Some detail and perspective on the purpose of the DELTA literacy tasks and their connection to independent thinking and trusting oneself in the creative process. Implicit connections are made between arts and literacy learning processes.

> Student Response: "I have learned how to make a book and tell what it is about. Ms. Mary has taught us how to create books. She is very creative, and she wants

us to be creative too. Mr. Kevin taught us how to have a character that wants something, but along comes an obstacle that gets in the way. At first it was hard because I did not understand what to do, but when I realized what I was doing, I got better and better every time he came to my classroom." – *What is the relationship between creative process and good storytelling?*

Student Response: "I have learned so much from Mr. Kevin and Ms. Mary. With both of them, I learned to develop stories with a character that has a want, obstacle, action, failure, and resolution. I was able to create stories with characters with human-like characteristics." – *How do you know when you have created characters with humanlike characteristics in a story?*

Arts Learning Entry Point: Discovery of the role of artistry for its own sake that indicates an entry point into arts activities and their possible connection to literacy.

Student Response: Ms. Tepper has inspired me to become an artist when I grow up. She does great artwork. I love to draw, too. I was happy to get a chance to draw pictures to go along with the story I made up. Now I have something to look forward to because of what I have learned. – *Since you love to draw, what ways do you think art making can contribute to learning in language arts or other school subjects?*

The leveled student reflections presented here are reflected also in large-scale student interview analyses in section VIII of this report.

Summary of the Miles Davis Academy Case Study

The Miles Davis Academy case study report draws on the work of two teaching artists who worked in tandem to broaden young children's study of language arts literacy to include drama and visual arts. While the previous case study emphasized the introduction of music literacy processes as a way to understand language literacy more deeply, this case study employed story writing and illustration, processes closely associated with the language arts curriculum and with bookmaking in particular. Arts- integrated literacy lessons at Miles Davis did not, for example, involve learning a new symbol system, as was the case with the music writing-reading project at the Emmet School.

Taken together, both case studies suggest that classroom literacy instruction may be too narrowly focused without including arts integration units developed in collaboration with teaching artists. In essence, the DELTA case studies demonstrate how arts learning promotes interrelated understandings of multiple literacy learning processes – a path of literacy skill development that depends more on creative response, imagination, experimentation, and aesthetic experience than do methods of learning that emphasize formulaic responses to rule-based literacy instruction. Teachers at Emmet found that listening to the beat, rhythm, and melodic contour of words heightens young students' awareness of the phonetic aspects of written language or word meaning. Likewise, at Miles Davis, classroom teachers discovered that illustration, acting, storytelling, and bookmaking are all essential aspects of arts-integrated literacy instruction that re-engages reluctant readers or writers and brings forth important evidence of a broader and deeper understanding of the life-long purpose and application of literacy skill development.

IVC. DELTA Case Study Report 3: Sumner Academy

Sumner Academy:
Building a Literacy Learning Community Through the Visual Arts

Based on artifacts and interview data provided by
Juan Carlos Perez, CAPE Visual Teaching Artist, and
Josy Nolin, Second Grade Classroom Teacher in the Chicago Public Schools

*

The Sumner Academy case study is of particular importance to the DELTA analysis because it offers the most extensive and consistently documented evidence[1] of how a single art form, visual arts, can be deeply incorporated into the broadest view of the literacy curriculum. CPS teacher Josy Nolin, her colleague Dana Goryl, and teaching artist Juan Carlos Perez documented systemically their joint investigation into how the visual arts can stretch children's engagement with language arts and social studies beyond the conventional boundaries of literacy instruction. Each year the visual arts/classroom teacher teams worked on a different project and wrote a different unit. The first year's unit investigated the relationship between motions and color; in the second year they explored the civil rights movement; and in the final year they focused on community.

The Sumner Academy requires that all teachers spend the first three hours of the school day on literacy instruction. Ms. Nolin decided that since a large amount of the required, intense direct instruction focused on a relatively narrow range of literacy subskills (phonics, fluency with sight words, etc.), she wanted to use the DELTA project to support her desire to include ongoing social studies units in the third hour of the literacy block. Throughout the three years of the project, literacy integration was achieved through units that required reading books related to the themes, writing responses to them, and then engaging in visual arts projects that were literacy based but also centered around the main concepts explored in the DELTA unit.

From the artist's viewpoint, the intensity of the planning process is the key for making integration work for both visual arts learning and its relationship to the teacher's concept of literacy learning in the classroom:

> **Juan Carlos Perez**: We have to brainstorm together and come up with something that is going to fit and make sense, not just me coming up with an art project because I think it'd be neat for them to just use words because we can do creative things with words. And it has to address the question, "How are they going to learn from it?" besides it just being something visual and fun. And that's why it requires the teacher's involvement. Also, I make it a point that I meet with whoever the teacher I'm partnering up with at least 2 to 3 times prior to coming to the classrooms, because it gets me a little more familiar with the instructor. We can already start stressing how we can collaborate with each other in front of the

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[1] Dance units were also employed at the Sumner School throughout the three years of the DELTA project, yet no real documentation process was developed for dance, nor was dance's contribution to language literacy chronicled in the DELTA portfolios.

kids, so that when we come into the classroom we're not still at the beginning stages of trying to adjust to each person's presence or ways of teaching and working together.

The intensity of the collaboration included both teachers dedicating themselves to rich documentation of the learning process throughout each project. As reported in the DELTA portfolio in the third year of the project, for example, Ms. Nolin's second grade documentation 'crate' included the following items:

Sumner DELTA Portfolio Exhibit 1:

In order to assess student growth in literacy and art, we collected a variety of artifacts:

Literacy artifacts:

• Word Wizard Dictionaries: *Students were given one or two new vocabulary words related to community each week. The dictionary included definitions, synonyms, using the word in a sentence, and illustrations of each word.*

• Vocabulary Squares: *Students used vocabulary words from the story of the week in sentences and illustrated them.*

• Weekly poems: *Students studied a new poem each week. They were asked to identify rhyme, nouns, verbs, and adjectives within the poems. They also illustrated their poems.*

• Poem recordings: *Students recorded themselves reading their weekly poems.*

• Reflection Journals: *Students wrote briefly about their understanding of the concept of community and citizenship.*

Arts learning artifacts:

• Photos: *Photos were used to illustrate various aspects or phases of the projects.*

• Sketches/Drawings: *Students drew throughout each phase of the project. This includes all pattern-making activities, symbols, and community scenes.*

• Word Play Activities: *Students creatively wrote community adjectives.*

• Painting Exercises: *Students practiced painting techniques with color wheels, outlining and filling shapes, and individual canvases.*

• Reflection Journals: *Students wrote briefly on their favorite parts of the mural and the process they underwent. They also reflected on the importance of art in our everyday lives.*

• Recordings: *Students were asked to reflect on activities done as part of the unit, and their thoughts were recorded.*

IVC. Figure 1

Most importantly, the crate represents activities that were essential to the projects themselves, and not just as responsibilities 'added on' in order to comply with an external need for assessment to demonstrate the success of the project. As demonstrated throughout this report below, the entire range of artifacts collected in the DELTA crate became crucial to communicating the understanding of each project's structure, the classroom dynamics, interactions between teachers and the students, and for providing indications of quality of student work across the various phases of each unit.

DELTA Literacy Journals, for example, became an important method for teachers, teaching artists, and students to understand that evidence of literacy skills can come from arts activities that stimulate reflective thinking on color and mood in self-portraits, a project initiated in year one and continued throughout the DELTA project at the Sumner School (see DELTA Portfolio Artifact below).

Sumner DELTA Portfolio Artifact 1:

IVC. Figure 2:
Josy Nolin regularly exhibited and discussed DELTA journals, illustrated word dictionaries, and project work in her second grade DELTA classroom.

From the perspective of this report, the Sumner case study provides the richest description of the impact of the DELTA project because it captures following features:

- Considerable evidence of a close and long-term collaboration with a CAPE artist and a classroom teacher over the three years of the project (augmented by interview data)

- Looping of DELTA units over three years, providing students with ongoing, sequential instruction in visual arts and its connection to language literacy through three grade levels.

- Rich, time-lapse documentation of the evolution of the DELTA units (both failures and successes, range of experimentation, revision of units, inclusion of social studies units, and facing the challenges of behavior management and social-emotional issues).

- Evidence of a broad range of literacy skills development that included (a) visual arts skills development (drawing, painting, portraiture, mural making); (b) the application of visual art to basic elements of language arts literacy (decoding, word fluency) as well as to more advanced aspects of language literacy (the use of vocabulary in descriptive and reflective writing); and (c) the incorporation of language arts to non-arts topics in social studies (Black History), social skills (cooperation, community building), and student social-emotional development (self control, self assessment, risk taking, dealing with frustration as learners, etc.).

- Extensive documentation of both group and individual work in all aspects of the DELTA curriculum.

Building on the points covered in the previous two case studies, the Sumner portfolio exhibits and artifacts demonstrate the scope and power of the DELTA 10-lesson units in early elementary grades. Like the music unit in the Emmet portfolio, Sumner demonstrates the relevance of literacy skills within the single art form to language arts literacy development. Visual art, as with music, provides alternative media and symbols for reinforcing and enriching an understanding of the structure of language arts subskills and its purpose for meaning-making across the curriculum. Like the theater and bookmaking projects at Miles Davis, the Sumner project explores aspects of storytelling by combining words with images and actions. However, this collaboration between visual artist and classroom teacher goes further into the documentation of the stages of description and depiction of self and others by focusing intensively on events and problem-solving tasks across the curriculum that are also connected to literacy. Because of the rich longitudinal documentation of DELTA units at Sumner, the final portfolio conveys a rich and varied landscape and portraits of literacy-learning integration.

Coming into Focus: The Artist and Classroom Teacher's Evolving Understanding of Arts Integration Over Time

While asking Juan Carlos and Josy Nolin separately in their final interviews about the history, process, and impact of the DELTA project, the two collaborators appeared to be in 'virtual' conversation with one another about the purpose and contribution of arts-integration to literacy instruction in public schools. Excerpts from these interviews reveal dialectical streams of thought focused on an emergent set of arts and literacy practices in their classroom practices over time.

The dialectical process begins with Ms. Nolin's receptiveness to arts integration in her classroom practices as a way to evolve as a teacher:

> **Josy Nolin**: For me, I was just excited about the DELTA project, because I've always been kind of close to art and expressing yourself creatively, and I was just excited to have some actual other teachers and artists to learn with and work with to do that. Teaching, if you let it, you can become very regimented, very static, and not change, and I wanted to just get some more ideas and approaches so it would keep things interesting, hopefully that would be more effective than the things I was already doing.

More than just being open to the arts, Josy sees creativity, learning, and collaboration as an antidote to letting one's teaching stagnate. Keeping things interesting becomes a way to ensure growth and quality as a teacher. After three years into the project, she describes her transformation as a teacher and a transformation in her students' motivation to learn:

> **Josy Nolin**: I feel DELTA made me a better teacher. It made me more open to ideas and possibilities as far as how you can teach young children and make it effective, make the children remember, make the children want to learn. I saw that it helped me provide a lot of motivation for my kids as far as wanting to learn how to read well, wanting to learn how to be an expressive reader, things

like that. And that sometimes it's very hard to do or find those things that are
going to help motivate the students.

While Josy speaks of personal transformation as a classroom teacher, Juan Carlos marvels at the
way his arts residency practices evolved during the DELTA project. He had often taught
students to create effective self-portraits and talk about the feelings that these drawings and the
added color captured. In the collaboration between Juan Carlos and Josy, the focus on literacy
emerged in the arts integration projects through journal writing with attention to both descriptive
language about the qualities of the art and to expressive use of language. By the third year,
language arts focus had penetrated every aspect of the portrait-making process:

> **Juan Carlos**: So this time we had them read "My Many Colored Days," and I
> had sentence structures, I had poems and paintings describing how they felt every
> single day according to the book. And they were able to attach symbols to them
> in their artwork. So what they were able to do was create brainstorming, thinking
> about something that makes them feel a certain way, attach a color to it, and also
> describe it in the writing and creating a poem to go along with it.

As seen below, the emphasis on the artist quality of portraiture has not been compromised by the
emphasis on its integration with language arts, nor by its connection to social-emotional
awareness, as indicated by both the young artist's comments and, as Juan Carlos reports, in
another exercise, peer response to the self-portraits.

Sumner DELTA Portfolio Artifact 2:

IVC. Figure 3:

> Student: I think he is feeling sad because his face looks sad and his head is leaning and he
> looks like he going to cry. Sometimes green makes me feel like I am sad. Sometimes green
> makes me sad too and I cry.

As seen previously (see Portfolio Artifact 1 above) these portraits make their way into the
journal process, and Josy and Juan are equally adept at describing the relevance of the
portraitures to reflective thought expressed in the students' writing.

In this collaboration between the teaching artist and a classroom teacher, as with many others in the DELTA project, vocabulary was a nexus point for a great variety of arts integration activities. At Sumner, Juan Carlos transformed traditional 'word walls' into large-scale collage projects.

Sumner DELTA Portfolio Artifacts 3-4:

The Word Wall contains high frequency and sight words. The Word Wizard List is designed to help students incorporate more complex, descriptive words into their speech and writing through maintaining their own illustrated dictionaries (see Portfolio Artifact 6 below).

IVC. Figures 4-5

In addition, Juan Carlos regularly encouraged students to incorporate 'Word Wizard' words into their reflections on any of the artwork accomplished in the DELTA lessons. However, having the children use designated vocabulary words was not an end in itself; rather, according to Juan, what mattered most to many of the children he worked with was the cycle of investigation of the shades and colors of words' meanings in and through art. When challenged to explore the symbols and renderings that can be attached to words, students were able to construct multifaceted understandings of the feelings and concepts behind the words.

> **Josy Nolin**: I definitely saw an increased vocabulary in the three years that we've been an intense part of this project. We wanted to build their oral, their written vocabularies, because this was where a lot of our students were falling behind in comparison with other schools in the city, other schools in the state. It was something that they needed, and so we would always do it.

> **Interviewer**: What strategies did you use to accomplish your vocabulary goals?

> **Ms. Nolin**: We had this thing called the "Word Wizard Dictionary" where the children would get one or two to three year two vocabulary words every week that would be linked to the unit we were doing. And then they were encouraged to incorporate them into their everyday vocabulary, into their writing. They were asked to look for them in stories they were reading, those kinds of things, just to kind of make them more aware that the language that they were speaking is much more

diverse than what they were being exposed to and that they could also have fun with it, and it became kind of like a game.

Interviewer: How did the Word Wizard Dictionary work in the context of the DELTA project?

Josy Nolin: As a classroom teacher I did expect to see an increase in vocabulary from September to June. But I also saw that a lot of the kids' writing – whether in their personal journals or in their reflective journals, or written work in class – became much better in terms of creativity and expressiveness with this project. I think they began to see language as something that could be fun and something that was empowering when they were able to manipulate and use these words in different situations, that they weren't limited to just using their slang or anything like that. In this project we'd actually have kids in the hallway, instead of saying, "She's messing with me," they'd say, "Ms. Nolin, she's *antagonizing* me." So when they had the opportunities, they'd actually use these Word Wizard words!

Josy's testimony on the impact of expressive and creative dimensions of vocabulary lists is mirrored by Juan Carlos's description of the literary power of the art created in the self-portraits. By going into further detail on the exploration of vocabulary originating on the word walls and Word Wizard lists, we can see that the success of arts-infused literacy lessons lies in the constant attention to the generative and expressive qualities of language in parallel with visual representation of underlying aspects of character and feeling that students learn to express in their artwork.

Juan Carlos Perez: At first when they picked the color in association with what they were feeling, when we asked them to describe why, they responded, "That makes me feel happy," "That makes me feel sad," "That makes me feel mad," always using the same words over and over again. They know how to write sentences, but they're not descriptive. So we realized that they needed to learn new words to describe their artwork.

Because of the inadequacies in the ways the children were describing their artwork, Juan and Josy began to collaborate in a spiraling set of activities stemming from both the artwork and the Word Wizard activities in the classroom. First the words:

Juan Carlos Perez: So we got a hat [and put] a bunch of different kinds of words there – more than just three letters, words like "fantastic," "exquisite," "jealous." And we had each kid pull out a word, and they had to think about what that word was; they had to go look it up in the dictionary to find the definition if they didn't know the word. Then we came around with a camera and took a picture of them acting out that word. For example, one girl who had the word "jealous," she had her arm crossed and looking to the side and shooting that, because she was just jealous. And then I went through the lessons on how to do self-portraitures and how to depict certain characteristics that described the word that they didn't know before and that they depicted by posing for the pictures.

And also about using a gradation of two colors, oil pastels that they thought reflected the mood of the word. And these pictures came out really well.

Interviewer: What was Josy's role in the project at this point?

Juan Carlos Perez: The instructor came up with the Word Wizard jar, and we were trying to see "who could fill out this wizard jar with marbles?" But they had to come up with a word on their own and know what it meant and tell it to the instructor themselves. It was an interesting activity, because each kid was coming up with all kinds of complex words, such as "obnoxious" or "wonderful." And they had to tell us what it was; they would come up to me and say "How about this word?" Amazingly, it was sometimes during recess or maybe in the classroom that they'd come up with a word and use it in the classroom. And with this project they were also able to write about what their self-portraits were about. We actually took their self-portraitures and sent them over to the other 2nd grade class for additional comments, and vice versa. And those kids took interest in critiquing each other's words in relation to the portraits.

Josy interprets the portrait-Word Wizard synthesis of literacy learning in terms of a new resource for differentiated language arts instruction:

Josy Nolin: When you allow the children many different ways of expressing themselves in response to a book they've read, they tend to make the choices for themselves. When I have a child who's a struggling reader, he might decide to write one or two sentences, but then draw pictures that express his deeper understanding of the book we read or the question being asked of him. A child who is highly literate might decide that they want to show their knowledge mostly through their writing, and they might draw a picture or they might not. It's about allowing the kid to make choices. And the teacher trying to provide activities that don't limit their response.

Evidence of long-term effects of arts integrated literacy popped out of the interview process with almost every description of a DELTA unit by either the artist or the classroom teacher. What began as a Word Wizard Wall became a personal resource for every student. The Word Wizard Dictionary became a long time project for the students. Some filled out as many as 20 different pages of their dictionary, all with detailed visual illustrations that elaborated on the range and depth of meaning. To the right (Sumner DELTA Portfolio Artifact 6) is an example of student visual arts integrative work in one of twenty Word Wizard Dictionary pages collected during the school year.

Sumner DELTA Portfolio Artifact 5:
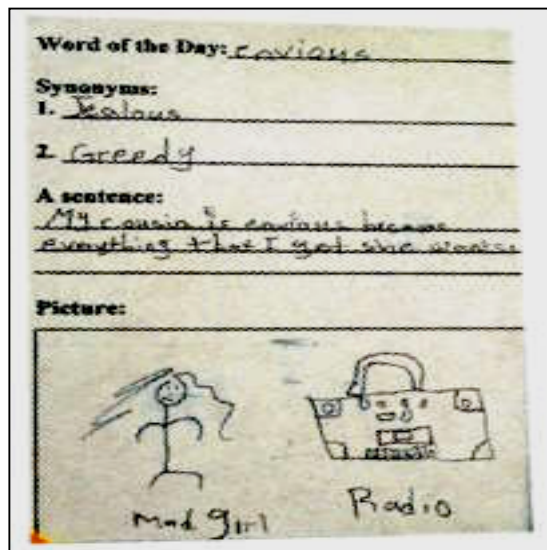
IVC. Figure 6

Finding a new vocabulary word, listing synonyms, and incorporating the word into a sentence is an example of good, common practice literacy instruction. Allowing space for the second grade students to illustrate the meaning of the word is not altogether unusual in approaches to literacy instruction today. However, when these words are explored further in a series of arts-based units integrated with the myriad activities described above, one might expect some differences in the long-term effects in literacy learning. In his interview, Juan Carlos describes encountering several students who had more than one year in the DELTA project:

> **Juan Carlos Perez**: When I was walking upstairs, two fourth grade girls stopped to say hello to me and started talking about when they were in the 2nd grade they did their self-portraits, "the one with the words." And one of them said, "I had the word "jealous," but I don't know why I had that word because I'm not really a jealous person. I responded "What do you mean?" and she said, "Well, I tend to not get as mad as other people," and she went on explaining about her character and how it was not in accordance with that word. But then she said, "I had fun doing that project!"

> **Interviewer**: I hear you saying that a student investigated a single word through your visual arts activities in the second grade, and two years later casually sees you in the hallway of the school only to reveal to you that this project generated a personal discovery that she wasn't the type of person that the word suggests. Do you think that this ongoing investigation into words and self-discovery happened with many of the students?

> **Juan Carlos Perez**: Yes, and the girl next to her said, "I had the word 'shy,' which I think describes who I am," and I said, "Why is that?" and she said, "Well, because I tend to be pretty shy about my intelligence." I asked her to tell me more about it, and she said, "A lot of people tend to pick on me, so I tend to not be as smart so I can fit right in, so I can be pretty shy about my smartness." So then I gave them some examples from my experience about people who felt the same way she did but came out of their shell, and how it ended up affecting them really positively in the future. After listening to her speak, I reflected on my own family and said, "My sister was one of the smart ones in the family, and got picked on a lot by her classmates but because she was a girl who was called a nerd." But as she got older my sister became successful in what she was doing, and so now they all come to her for information, which is amazing. Even the men in the family call her up for advice, and these were the same people who ridiculed her when she was young. So I had this conversation with young lady was able to... just talk about that word... and she was just telling me about her character. Afterwards she remarked, "I think I just need to be the way I am and not be shy about it."

As if in the same interview, Josy hints at a theoretical framework that might explain the surprising and seemingly inexplicable way arts-integrated learning supports the classroom teacher's long-term goals for literacy:

> **Josy Nolin**: I think DELTA makes the teaching more effective because the children really hang on to the information that's being presented in that way. For

whatever reason – and it's something that was unexpected to me, I didn't think that that would happen – but the students remember things even from the first year they were involved in DELTA. They'll still talk about it and remember those concepts. So I think when you combine the literacy with the arts, it leads to overall more effective practice for teachers. It's time better spent because you're not going to have to keep retouching and re-teaching the same thing.

The Sumner DELTA Portfolio Presentation

The final section of this case study report features a sequence of exhibits and artifacts from the Sumner Portfolio presented to CPS teachers and administrators in the final year of the DELTA project. The interview excerpts above provide a framework for understanding the deeply rooted processes that led to the final year portfolio documentation from Sumner's second grade classroom work. Josy Nolin and Juan Carlos Perez speak more and more in one voice as they comment on each stage of the DELTA unit, including the ups and downs of the final year project.

Before the project began, Josy was encountering extreme discipline problems in her classroom. Consequently, the DELTA unit had to start from the standpoint of creating a positive climate for learning. The portfolio sequence presents a series of exhibits that outline the rocky process of building a learning community based on a new understanding of social-emotional development integrated with language and visual arts literacy skills and concepts.

The first portfolio exhibit describes unusual problems with student behavior and social emotional development, a situation many teachers at one time or another encounter at the beginning of the school year.

Sumner DELTA Portfolio Exhibit 2:
Decision Point: The Need to "Study the Concept of Community *Before* Focusing on Visual Arts Integrated Literacy"

> **Piecing Together A Community**
> After working with my class for a few weeks, it was obvious that the students had a very difficult time working with others. There was constant fighting and unrest. Much of my time was spent disciplining and refereeing instead of teaching. We accomplished very little academically because of this. When planning began for the third and final year of DELTA, I knew that we would have to develop a unit that addressed these issues, or both the students and I would suffer greatly. We felt the best way to deal with the challenges we were facing was to study the concept of community before focusing on visual arts integrated literacy. We wanted to not only define what a community was, but also understand how a community worked. All in the hope of finally creating a functioning, positive classroom.

IVC. Figure 7

The second exhibit poses an "inquiry question" that led to a series of DELTA visual arts units designed to engage students in community building through the arts integrated learning.

Sumner DELTA Portfolio Exhibit 3:
The Problem: How Can Our Students Develop
"Skills for Interacting with Others in Positive and Productive Ways?"

The Problem

The inspiration for this unit actually originated from a classroom problem. Our students desperately needed skills for interacting with others in positive and productive ways. Their negative behavior frequently interfered with instruction and made learning a constant struggle. It became very apparent that, in order for the children to progress academically, we had to focus our attention on solving this "problem."

IVC. Figure 8

Stating a theme and inquiry question became the fundamental basis for the classroom teacher-teaching artist collaboration in this DELTA project. The next sequence demonstrates that at first there was little or no community building traction in the visual arts activities, and that as a result the classroom problems were not going away.

Sumner DELTA Portfolio Exhibit 4:
"A Drawing Activity Fails: Back to the Drawing Board"

Ice Breaker I

To begin the unit, we decided to have the students do what was supposed to be a simple drawing exercise. They were to study their neighbor for a few minutes, taking note of their features, clothing, etc. Then, we wanted them to turn their back to their partner and draw them from memory.

The activity completely fell on its face. The students were fighting and totally off-task. The sketch paper fell on the floor. They hit, kicked, and yelled at each other. They ran around the classroom and talked back to me. We had to stop several times and try to regroup. Very few of them finished the assignment, and even fewer of the drawings actually survived the catastrophe. It was a wasted session. The following week we had to cancel before Juan Carlos could even begin his lesson. The icebreaker didn't break any ice; it broke our hearts. It was at that point we realized we really had our work cut out for us. Back to the drawing board!

IVC. Figure 9

Sumner DELTA Portfolio Exhibit 5:
"Enacting a Good Citizen Web fails to
Demonstrate the Importance of Working Together"

Ice Breaker II

After our introductory disaster, we decided that we needed to engage the students in an activity that really stressed teamwork. We came up with the idea of building a web.

The class formed a circle on the floor. A student was handed a ball of string and needed to think of a way he or she could be a good classroom citizen. They stated their idea and then rolled the ball to another student. The intention was that by doing this the children would eventually form a web that demonstrated the importance of working together.

It was a wonderful idea in theory but in practice it didn't live up to expectations. Again, my class proved itself to be one of the most difficult groups I had ever encountered. Unwilling to call it a complete wash, I asked the children to write about why the activity had failed. They were surprisingly honest and correct in their critique of themselves.

IVC. Figure 10

These first four portfolio exhibits are remarkable in their candid portrayal of a discipline challenged classroom and the initial failure to solve these problems by an experienced teacher and artist in the DELTA project. How can educators expect children to draw their neighbors when there is no demonstrable respect for the classroom community? How can classroom teachers and artists expect their children to work with stringing yarn as a metaphor for studying community when they have little self-control?

Pressed to provide more details of why students failed to respond positively to the task, Juan Carlos responds:

> **Juan Carlos Perez:** We asked them a question, "What contributes to a community and why?" And every time a kid raised their hand, they'd be sent the ball of yarn we rolled in, and they held onto the string, and the next person raised their hand, and while yarn went around the whole circle, created this big web. And what ended up happening was that, as you might expect, some kids were pulling on the string too much, some kids wouldn't let them go, so the web was falling apart. So it was kind of like an awakening moment for them, because they realized that, although a lot of them really wanted this web to happen, and they could see it was beginning to form, they couldn't get to the end of it because of a lack of participation of others. People were fighting and pulling on the string and quitting and yelling and not listening – it was just a mess. So we gave them an assignment to write about why the web didn't work (see Sumner Portfolio Artifact 7 below).

Sumner DELTA Portfolio Artifact 6:
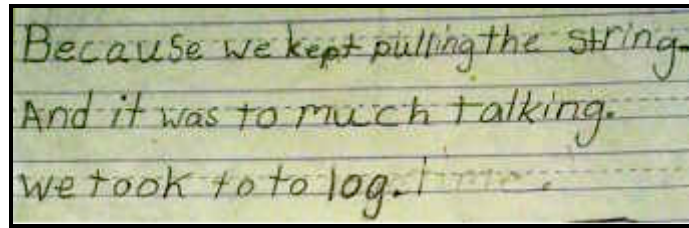
IVC. Figure 11

Student reflective writing response to the question: Why didn't the yarn activity help build classroom community?

The yarn activity was brilliantly conceived to symbolize building a community; it just didn't solve the problem for those children still intent on misbehaving. The reflective thinking exercise was tied directly to literacy skill objectives, but the writing exercise did not engage positive response from those who were not participating in the activity to begin with. Yet there are some clues that a transition may be on the way. There was now a shared experience of 'the problem' and an 'awakening' to the lack of community in the classroom.

Undaunted by failure, the indefatigable DELTA collaborators pursued other avenues of arts integration guided by the following "inquiry questions."

Sumner DELTA Portfolio Artifact 7:
Year Three Second Grade DELTA Project Inquiry Questions

- How can we make the study of words (adjectives, nouns, meanings) exciting to students through the use of visual arts?
- How can we create a more stable, functioning classroom environment through studying communities?
- What visual art form will best express the concept of community?

IVC. Figure 12

The Evolution of the Sumner Community Mural Project

The solutions to the problems posed by Josy and Juan's inquiry questions were surprisingly simple. Guided by the artist, the class would create a mural based on studying the concept of community. In addition, every step of the mural-making process would somehow incorporate visual arts activities designed to engage every student's interest in language literacy.

The success of the task would depend on the study of the mural and the concept of community enhancing the behavior of the class *as a community*. In the next series of Portfolio Artifacts, Josy and Juan Carlos design visual arts and visual arts integration activities for year three of the DELTA project, leading toward the creation of a literacy and community focused classroom mural.

Sumner DELTA Portfolio Artifact 8:

We decided that the most effective way to deal with the "problem" was through exploring the concept of community. We believed that, by studying what makes society as a whole work, we could, in turn, create a constructive, effective classroom community. We had to teach our students how to consider other people's feelings and to view themselves as part of a whole. We also believed that the best art form to embody this concept was the mural. We wanted the children to realize that the success of a community is dependent upon the individuals that compose it. Their behavior, negative or positive, had a direct impact upon their neighbors and the classroom environment.

The children's literacy was addressed at every stage of the project. A variety of literary exercises were created to accompany each step in the development of the mural. The mural was the perfect art form for what we were trying to accomplish with our students. It could only succeed if the children were willing to cooperate and allow their individual work to become part of a group effort.

IVC. Figure 13

The Sumner Mural Making Process

Observation and Reflection
The mural making process began with observation, and oral and written reflection on these observations.

> **Juan Carlos Perez**: The students' job was to "Look around in your neighborhoods and see what is something that you think could be recycled to better the community." So what was interesting was they began writing about things like abandoned cars in the neighborhoods – all busted up and the windows are all torn up – and they would say, "We can get this car and change the windows, get new tires on it, change the motor on it, recycle it, because there are people that say, "Can I get to school without cars?" or there are people that have to ask "Can I get to the grocery store" or "get through a bad neighborhood" without a car?

The written reflections and discussion based on community observation also turned into linguistically sophisticated Community Concept Maps that began to relate to the webbing together of classroom community as well. The concept of community based on working together, listening to each other, sticking together, was encouraging.

Sumner DELTA Portfolio Artifact 9:

IVC. Figure 14
Community Word Webs constituted an important step in the mural-making process.

Visual-Linguistic Pattern Recognition and Generation
Conceptual understanding in visual art evolves out of observation. Thus, the processes of seeing (reading) and generating (composing) patterns are both basic components of visual literacy.

Sumner DELTA Portfolio Artifact 10:

> We began to prepare for work on the mural by engaging the children in pattern-making exercises. The class studied and explored how they could combine line, shape, and color to make patterns. We also talked about the many different types of patterns that we see in our everyday lives, such as in floor tiles, lines on the road, on clothing, or in their hair. Throughout the year, the students continuously came up to Juan Carlos and myself to share with us the patterns they saw around them.

IVC. Figure 15

In the DELTA unit, the perception of visual patterns in words and the application of these patterns to create pictures became a strategy for enhancing the meaning of words and their relation to the study of community.

The portfolio artifacts below show striking connections between visual-geometric and visual-linguistic patterns. It appears that the interplay of visual arts and linguistic patterns led also to a generation of word-pictures, such as the "driving' example below, where the integration of words and visual art produces a certain conceptual clarity of what it means to be able to drive a car in a community (referenced to the questions such as "Can I get to school" or "get through a bad neighborhood" without a car?). Visually, the 'driving' energy of a community seems also to emerge from this student's work with word patterns.

Sumner DELTA Portfolio Artifacts 11-12:

IVC. Figure 16-17:
Portfolio artifacts that illustrate the interplay between visual-geometric and visual-linguistic thinking.

Juan Carlos elaborates on the impact of the word pattern activities in the portfolio:

> **Juan Carlos Perez**: Then, they played with words to see how they could be used to create pictures. For the first assignment, the only criteria the children were given for the activity was that they must use a three-letter word. One of the

discoveries in this exercise was how some students began creating symbols out of their patterns. A student wrote his three-letter name "Tre" out of the three-letter word "one" to symbolize that he was 'Number One.'

Visual-Linguistic Symbols
Next, students were asked to create pictures based on community words that appeared in their conceptual maps and reflections on their observations of community. Their combining of words and images not only demonstrated the students' creativity but also their nuanced understanding of word meanings – an understanding that is considerably beyond what is demonstrated by writing definitions and showing how the word can fit into a sentence.

Josy and Juan describe this activity in the portfolio as a process that invokes social and personal awareness of words to be used in the mural:

Sumner DELTA Portfolio Exhibit 6:

Throughout the unit, the class brainstormed word lists in connection with various assignments. Before our discussion of symbols and their use in murals, we came up with a list of words the children associated with the concept of community. The list included words like school, family, teamwork, and helpful.

The students learned that symbols are pictures that represent words or ideas. They discussed common symbols for concepts such as love or for various holidays. Then, the class was encouraged to create their own symbols for their community words.

Students expand the meaning of Community
Words through symbolic representation.

IVC. Figure 18

Creative Word Play
At this point the students had already brainstormed a list of adjectives to describe a community they would like to live in. The next step in the process was to create images that would invoke the attributes associated with the word in order to give it substantive character and presence in the mural. For this exercise to be successful, "the students had to truly understand what the word they were working with meant." Many of these words were added to the mural in its final stages.

Although much of the word play was accomplished with simple words, the idea of the presence of words in the mural was not lost on the students. Directly below we can see that the centrifugal energy of the "city face" is well matched to the swarming patterns of the "bees."

Sumner DELTA Portfolio Artifact 13-14:

IVC. Figures 19-20:
Examples of word play found their way into the Sumner word walls and became an important feature of the mural-making process and the final product.

Drawing Community Helpers

Drawing often reveals important information regarding what students choose to focus on and their ability to pay attention to detail. Thus, when students were asked to select community helpers and draw them, the children demonstrated their understanding of community through their focus on the details of the helpers' clothing and the tools of their trades.

For the teaching artist, this exercise was an opportunity to teach fundamental skills of drawing:

Sumner DELTA Portfolio Artifact 15:

In our continued preparation for the mural, we had the students begin to lay the foundation for the finished piece. We began with a drawing exercise of a person. The children drew a person using only basic shapes. One of our favorite classroom rules arose out of this activity: No stick people! From that moment on, the class constantly reminded each other of this. Even when a new student made the mistake of drawing a stick figure on another assignment, the children around her immediately pointed out that "*We* don't draw like that."

IVC. Figure 21

Standards of drawing skills were balanced with attention to perspective within the concept of community. Who are community helpers? What is their contribution? How do they work together? For many children, drawing a community helper was a process of discovery that often changed their understanding and expression of the concept of community as they critiqued the drawing process. Josy observed:

Sumner DELTA Portfolio Exhibit 7:

At one point, Juan Carlos noticed that a table of girls were all drawing police officers. He also observed that they were all drawing male police officers. He talked with the students about this and asked if all police officers were men. The girls thought about it and responded, "No, they weren't"

They immediately began changing their males into females. To accentuate this change, one of the girls even gave her officer a pair of fishnets!

IVC. Figure 22

Outlining the Mural Using Community Scenes

Looking at slides from other murals around the city helped students make choices about their words, drawings, and how a mural might be outlined. Drawing community scenes challenged students to think about how they might incorporate what they had learned about patterns, symbols, and word play into the mural. Issues of foreground, background, and middle ground provided added layers of distinction in meaning and importance of the community words, surroundings, and roles.

At this point in the process, the mural outline was co-directed by the teaching artist and classroom teacher, and the students were awestruck by the process of converting small drawings into a large-scale mural.

Sumner DELTA Portfolio Exhibit 8:

Josy Nolin: Juan Carlos selected portions of the students' community drawings and pieced them together to create a cityscape. The resulting scene was made into an overhead and was projected onto a canvas. Juan Carlos and I then spent several hours and suffered several hand cramps meticulously outlining it. We did our best to stay true to the children's original lines and didn't want to compromise their work in the process. It was very important to us that the outlined mural still looked like the students' drawings. The students were in awe of how their drawings got so big. We of course explained the process to them, even though it was very tempting to give the credit to MAGIC!

IVC. Figure 23

Painting The Mural

Adding paint to the mural became the culminating visual arts challenge of the DELTA Community Project. This process again required visual art learning skill development. Students first learned to create color wheels, practiced mixing colors, discovered distinct colors for their mural scenes, and learned to apply paint with precision.

Sumner DELTA Portfolio Artifacts 16-17:

IVC. Figure 24-25:
Students prepared for the challenges of mural painting by learning to mix colors consistently and to apply paint to geometric designs skillfully.

An unanticipated outcome of the painting process was the complete transformation in both the teacher-teaching artist roles and the student behavior once they started to paint the mural. Josy found herself leading the class in painting exercises and discovered that the discipline problems had disappeared!

> **Josy Nolin**: Juan Carlos began to take groups into the hall to paint the mural, leaving me to lead the class. We asked them to draw basic shapes such as stars, squares, or circles. Then, the students outlined them and filled them in. I was a little scared of what might happen when I was left alone with my students *and* paint. I had visions of paint fights and spills, but paint turned out to be a magical ingredient. I had never heard my class so quiet and focused. Even visitors to the classroom commented on it. I was thrilled. It was about time!

The challenges of the final stages of the project were not about discipline, but about artistic guidance and reflection on the process. Josy comments on the challenges of her new role in the arts integration process:

> To make up for the fact that the children weren't able to help in the layout, we gave them individual canvases to paint on. After completing their sketches, the students drew on their canvases and painted them. They used what they had learned about pattern and color mixing to complete their paintings and were very self-directed. The only real problem we encountered was getting them to stop painting! Some students did a beautiful job, but just continued to paint because they hadn't been advised that they were done. Thankfully I was able to capture some of their masterpieces on film before they were covered up. Next time, I am going to be a little more proactive about conferencing with the students on their progress. Hopefully, this will prevent the destruction of future artistic gems.

Sumner DELTA Portfolio Artifacts 18-19:

IVC. Figures 26-27:
A cycle of collaborative action, reflection, judgment, and joy emerges in the final stages of the mural project.

The mural project produced many new lenses for looking at visual arts and language arts achievement in the context of the community mural project. The examples provided below capture only a thin slice of the learning experiences that stemmed from a community-based context for learning literacy and arts skills throughout the mural-making process.

"The Passing of Time": Multiple drafts of Individual Student Work
Mirroring the language literacy learning in the classroom, process documentation in the visual arts provides time-lapse snapshots of skill development in the primary modes of expression: drawing, painting, and the melding of language and meaning into the final products.

Sumner DELTA Portfolio Artifacts 20-22:

IVC. Figures 28-30:
Three-stage documentation of the "I've got a new home" scene in the community mural.

Juan Carlos Perez: Some children's work exhibited the *passing of time*. Their images were not created only in response to an assignment but also showed a personal narrative that demonstrated a connection to their artwork. Their work did not exist in a vacuum, but reflected the reality of these students. They drew actual scenes and scenarios that real communities experience. For example, in the beginning of the year, one student's original community drawing showed a little girl in the process of moving. The girl is depicted saying, "I got a new home." At the end of the year, when this same student revisited this scene for her canvas, she drew the little girl arriving at her home saying, "My home is here!"

Sumner DELTA Portfolio Artifacts 23-24:

IVC. Figures 31-32:
In the passage of time taken to finish the mural, a girl depicts the sentiments of moving to a new place ("I've got a new home") and feeling at home ("My home is here) in urban communities.

Community Concepts, Symbols, and Word Play
As each child worked on the mural project, the standard for their individual work rested in part on their ability to explore and express community concepts, symbols, and word play through visual art. Excerpts from the mural provide important lenses for viewing the contribution of individual work to the whole and the connection of this work to language arts and social-personal development.

Sumner DELTA Portfolio Artifacts 25-26:

IVC. Figure 33-34

A Community Literacy Mural as the Final Learning Product
The final work is a source of pride in the permanency of arts-enriched learning. A mural is a substantial work of art that reminds student of the processes that led up to the final stage of creation. Embedded in the mural, however, are visual and linguistic delights: the tree flowers are school desks, the apple is the Sumner School. The tree to the left is made up of repeated "city" words above the playground, and the "bees" are tilled into the soil surrounding the tree to the right. There are many small portraits of community helpers, and the person in the white car has found a home in the city. There is a lot to see, a lot to discover, and these children can all conduct a tour of their community mural and its relation to the classroom community. The mural itself has become a defining part of the Sumner School community.

Sumner DELTA Portfolio Artifact 27:

IVC. Figure 35:
Critiquing the final work provides avenues of reflection back into the process of mural making and its purposes in providing a concept of community that demonstrates both visual arts and language literacy skills.

Valuing Visual Arts Learning for Its Own Sake and for the Sake of Learning in Other Disciplines
In the Sumner DELTA Project, visual art matters to the students and teachers in different ways. As Josy Nolin was preparing to read a story to her class about a little boy who loved to draw, a new student posed the question, "Do some people think art is important?" Josy's response was to turn have the children respond to the question. Not surprisingly the responses often focused on learning to become an artist, paint like an artist, and experience the success of creating a mural.

> *"Art is important because you can learn a lot of stuff in art and you got to listen to the teacher so you can paint and make a mural and it is going to be perfect."*

> *"Art is important because you can become an artist. Art is important because you can be the greatest artist in the world. You can be like Juan Carlos."*

> *"Art is important to me because I like to paint on murals and on paper. I think every person need to learn about art."*

For some students, it was enough to respond with artistic aspirations and expressions of satisfaction with the final product. However, many other students at Sumner made some reference to art's connection with learning processes in other disciplines. As indicated in the example below, the concept of being an artist is important because artwork involves "the use of patterns and symbols."

Sumner DELTA Portfolio Artifact 28:
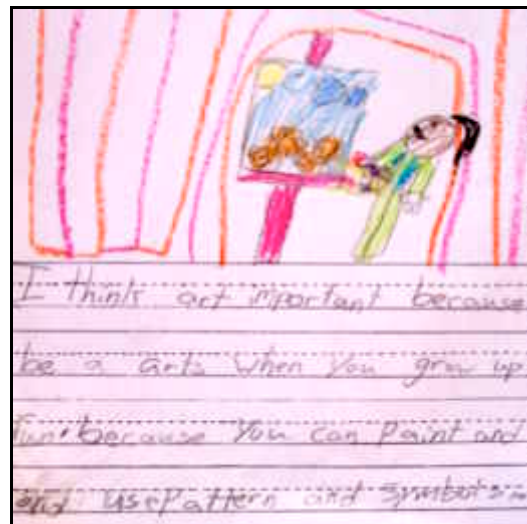
IVC. Figure 36

Teachers see a transformation in student learning and in their own teaching practices. Josy reports that the students see "art as fun but also valuable" because "they feel it is important to their lives and makes them feel good about themselves." But Josy feels there is much more that the students learn from the visual arts:

> **Josy Nolin**: Through visual art the children became very keen observers of patterns in the world around them. Students would often comment on a

classmate's clothing, an illustration in a text we were reading, or poems when they noticed repetition.

The DELTA project helped students realize that words are art. Art and literacy are not separate subjects, but enhance and enrich each other. The students were able to connect and associate much of the literature they read to the theme of community. For example, when studying insects, they pointed out that a colony of ants was similar to a city. The discussions we had in class demonstrated the development of higher-order thinking and a deep understanding of the big idea. The children also made connections between art and other subjects and applied their art learning to their work across the curriculum. Whenever they wrote, the children would draw a picture to accompany their piece without prompting. I never had to ask them to draw. It became natural to express their learning visually.

Testimony about student learning is connected with transformation in the underlying philosophy and structure of Josy's teaching practices. Arts learning has ascended to a position of equal importance with other subjects:

Josy Nolin: Well, I think the DELTA project has led me to having a deeper appreciation of the arts. Now I feel the arts with children are just as important as social studies, just as important as science, just as important as math, just as important as literacy. It's on the same level, and that's why I keep working with curriculum integration or subject integration, because I don't view arts as separate and something that had to be weaved in; it's just as valid and just as important to the children in their learning. That's something that I discovered by integrating the visual arts or the performing arts – everything was more effective.

Furthermore *arts literacy skill development* gains equal footing with other forms of literacy.

Josy Nolin: I think arts literacy is pretty similar to language literacy. The children, whenever they might have an opportunity to draw in response to something, would always say, "No stick people," because they were taught a certain way of drawing as far as giving things some dimension. They were given explicit instruction in that – using an oval for the head, and using rectangles and squares – and that's something that they just applied across the board in everything that they were doing, and reminded each other of it. And I think that is a reflection of their arts literacy, as far as understanding that there's a better way of doing it; that by doing that, they're being more expressive and giving themselves more tools to do that.

Reflecting on the challenges of working with her most reluctant learners, Josy notes that high quality arts learning can provide alternative paths toward greater 'self-esteem as learners' that may best bring forward her otherwise unreachable students. With Juan Carlos as a collaborator, the self-portrait tasks became a path toward positive self-awareness, expressivity, and creativity, as demonstrated by a young students' multiple media literacy performance at the end of the school year:

Josy Nolin: Well, I can think back to my first year, and I had a very sweet child, but he had a very poor self-image and was very angry, and could really become quite aggressive and act out. And so throughout the project we were doing these oil pastel self-portraits, and I saved his drawings from the garbage probably about a dozen times over the course of that project. When he was drawing he would think it was ugly, and he would crumple it up and throw it away. We'd get it back out and smooth it out and we'd calm him down, talk him through. And then when he was coloring it, he'd hate it and throw it away. And it was just a constant, "No, no, calm down. Look at this," and point out the really positive things he was doing.

He was also a non-reader and non-writer at the beginning of the year. He would refuse to do it, claim that he couldn't do it. But then toward the end of the year he wrote this very nice piece about the color orange, and we selected him to read it out loud. We had a performance and other children did movements to his writing, and we put his artwork in the gallery, and he was walking around and he showed his mother his drawing, and he was talking about it and being so positive, he was just so proud of himself! And it was enough to make you cry, to see this kid who was just so mad at everyone, and by the end he was just smiling, because he thought he did a marvelous job and was just fantastic. So that to me was one of those things where I was like, this project, if he was the only kid it reached, it was totally worth it.

In the DELTA project we see many forms of evidence of arts learning. Both Juan Carlos and Josy recognized that visual art itself demands multifaceted understanding of materials and skills, yet also can engage reflective understanding of artistic processes and its importance for children in schools, especially for those who previously have had little or no art instruction. When looking at young children's art, it is sometimes easy to miss the thought behind the work. Taken out of context, the portrait on the left is a well-rendered portrait by a second grader. But framing the portrait and inserting it into a community mural provides evidence of the student's awareness of community roles.

Sumner DELTA Portfolio Artifacts 29-31:

IVC. Figures 37-39:
A portrait of a student's mother, her mother as a physical therapist, and the role of a physical therapist in an urban community.

The dialogue below between the student and Juan Carlos reproduced in the DELTA portfolio demonstrates a process of reflective thinking that validates the mural as a composite measure of social and community understanding.

Sumner DELTA Portfolio Artifact 32:

Student: Can I draw my mom?
Juan Carlos: What does your mother do to contribute to the community?
Student: She's a physical therapist.
Juan Carlos: What do physical therapists do?
Student: They take care of sick people that can't take care of themselves.
Juan Carlos: What kinds of things do they to help people?
Student: They help them get out of bed. They cook for them. They wash them when they need to take a bath. And they clean up their house.
Juan Carlos: I think you can draw your mom as a role model, because a physical therapist is important to the community.

IVC: Figure 40

The mural is also a composite measure of these young students' artistic skills and understanding. When students started painting on the mural, they were challenged to perform and think like artists, making authentic artistic choices based on what they had learned throughout the DELTA unit.

> **Juan Carlos Perez:** Usually second graders do not paint with such vibrant colors. It's very difficult to keep even older students from turning everything into mud. Some of the children used this opportunity to practice their patterns through the use of color, which is also atypical for this age group.

> Aesthetic choices are also present in this work. One student felt that the buildings lacked playfulness, and that patterns were needed in the mural. Thus, a spotted car shop was created.

> The children also employed their knowledge of symbolism. Another student felt that her shelter should be painted red, white, and blue to show how Americans care for each other.

Reflective Awareness as a Literacy Skill
As the project evolved, Josy increasingly valued arts and arts-integrated learning for its contribution to student reflection. Reflective thinking in this context is not focused only on retrospection, but on a wide range of considerations prior, during, and after engaging in artistic process. Thus, reflective awareness – reflection in action – as well as reflective understanding of choices and consequences in their artistic work, spread across academic disciplines, social development, and their related literacy skills

> **Josy Nolin**: My kids became more aware of their surroundings. We had been talking a lot about patterns when we were beginning the process of creating the mural, and my kids have started seeing patterns everywhere – in clothing people were wearing, in poems we were reading, things like that. So they just became more *observant*. In addition they were able to critique themselves, which was

interesting because we talked about artists' work and each other's work, and they got very good at giving positive feedback to each other. They were increasingly able to look at their own work, to talk about what they might do differently next time, or if they were able to do it again what they might change. And this consideration of change occurred not just when they were reflecting on activities that might not have worked in DELTA, but they had a couple of opportunities to watch themselves read poetry, and it was always really interesting. They were always really right on and really honest, and I was pleasantly surprised about that.

The teaching artist observed how classroom teaching practices began to include a wider range of student reflection. And it was the documentation of reflective thinking in the DELTA student work file that allowed the teachers to see that the most difficult students were being drawn into the mainstream classroom activities.

> **Juan Carlos Perez:** Ms. Nolin had created this little journal with questions and which also gave them a little box to draw on if they wanted to draw—it never said that they had to. I noticed that there was one kid who was non-responding. He wouldn't make eye-contact, and when you weren't looking basically cuss you out; and when you turned around, he was just looking down. So throughout this whole project, I thought, "he's just not getting it, he's just not seeing it, he has behavioral issues, it's not happening, and we don't know what to do."
>
> But through the documentation of the drawings and lessons, we actually found work that indicated that he was paying attention to the DELTA lessons. Yes, he was having behavioral issues, he was having issues at home or something like that. And every time we saw him we assumed he wasn't writing or he wasn't drawing or he wasn't doing any of the work, but when we went through the student work folders – and this is mid-way through the semester, getting close to the end of the DELTA unit – we saw that the documentation of his paintings had improved and that he was paying attention to how to draw a person through shapes, and we did see written documentation of using words creatively. We did see how he grasped the concepts, based on his notebook.
>
> The first entries in the book suggested that he was trying to explain something about a thing that Ms. Nolin gave him, but he had just one small word you could barely decipher, there was a picture of a little couple of doodles – I couldn't tell what it was. Towards the end of the book, however, there's documentation of his writing and how elaborate it got compared to the first samples and how his drawings had become better because he could describe what he's writing through the drawings. It surprised us, because I was thinking "There has to be something here," and so we were determined to go through the book and we found it, and it was amazing to see.

When approached from the perspective of reflective engagement through detailed and thoughtful observation, arts and arts-integrated learning and teaching promotes an ethos of collective learning that is more likely 'to stick.' And it appears that constructing and sustaining an environment of group participation and collective action is what invites the most troubled learners into the process.

Josy Noslin: I think the children involved in DELTA are definitely more accepting of other people's ideas and supportive of one another. That was something we really tried to cultivate in our own classrooms through the mural project. And as the class learned to have positive critiques of the artwork that we were doing, and the kids learned to describe what they liked, and to say something in particular like, "I really liked the way they used the lines here," it showed that they've become more aware of the concepts that Juan Carlos taught them in drawing and line and shape and color, and that these things have really stuck with them. So I think they're just much more aware of their environment and more apt to comment on something that they observe in the classroom and in each other. It's changed those children in terms of support and compassion for each other, and their observational skills especially.

Sumner DELTA Portfolio Artifact 33:

IVC. Figure 41:
Ms. Nolin's class portrait with the finished community mural in the background

End of Project Testimonial

For both Josy Nolin and Juan Carlos Perez, the culminating year of the DELTA project at the Sumner Elementary School was successful in ways that extend beyond traditional high-quality arts residencies in the past have claimed for community theme-based, long-term residency projects. The artwork got done, the children were proud of it, and examples of arts learning were prevalent. Yet, the classroom teacher's project report provides lines of testimony that point toward a greater impact of an arts residency through its integration with classroom academic and social goals:

Josy Nolin: The project was a huge success! The idea of what a community is and what makes it work were concretized and internalized by the students. It was such a shock to see that the same kids who were running around yelling at one another and not taking each other's feelings into consideration were now accepting of everyone's addition to our classroom community. The mural also

vividly expressed these concepts to the children. They loved being able to share with their classmates their contributions to the finished piece. They were overflowing with pride in a job well done. When asked what they enjoyed most about the unit, most commented that their favorite thing was the mural. Many liked being able to paint and explore color, shapes, and lines. However, some of the more mature students got the "community" message loud and clear. For example, one child summed up the mural's purpose simply and sweetly. She stated, "I like the mural best because it was made by all of us. We are all part of it. We had to be a community to do it."

When asked about changes in teaching practices, Juan Carlos suggests that arts integration practices stress a higher degree of inclusion of the classroom teacher in arts learning activities and pay more attention to aspects of behavior, the roles of other art forms, and the need for documentation for the purpose of measuring student growth.

> **Juan Carlos Perez:** Also, I notice besides DELTA and other works that I've done, that whenever I do residencies now, I tend to do some kind of pre-exercise that I can compare at the end, where I can give them the same exercise again to see if there's any growth. And just getting the teacher more involved in showing that it's not just one visual component, there's variety of things we can include in it; it doesn't have to be visual as well, we can bring music into it, we can bring other things too to the projects. In that way, it's affecting my teaching a lot. And I think just the emphasis that I'm really trying to get to know the instructor before I come into the classroom, I make that a really important priority.

For the classroom teacher, the DELTA project was much more than a typical artist residency experience. It was an experiment into scaling out arts integration to a much wider extent of academic, cognitive, aesthetic, and social emotional aspects of the curriculum. Josy's last statements in her final year reflection journal provides a descriptive taxonomy of DELTA outcomes:

The importance of the DELTA project grew in proportion to its extension into the curriculum:

> **Josy Nolin**: I've always thought the arts were important, but up until the past three years I never really considered integrating it to the scale that we have. I just wasn't aware of the possibilities until getting involved in this project and being able to exchange ideas with the artists themselves and the other teachers that I've worked with. I think I became more aware of how every assignment, every standard or benchmark that I'm responsible for teaching the kids, that there's a way for me to integrate the visual arts. And I just think that that's really important, because the kids seem to retain their learning. Through DELTA I can teach arts integration that's going to get the kids using their hands and the creative side of their brain to get it done, and then that's going to make it more effective, because they're actually going to remember this information.

DELTA promotes differentiated instruction across the curriculum:

Josy Nolin I feel like now that I've had this opportunity and been able to work with DELTA, that now I'm going to be a more effective teacher. I'm more aware of the possible approaches and strategies that you can use with children, and the different things that can not only help those children that are already on grade level and performing and meeting expectations, but for those kids who are really struggling and need a lot of support. And that's also helpful, because when you're in a classroom with 27 kids, it's very hard to differentiate instruction to meet all of the needs. It's very hard to get that one-on-one time, the intense instruction that you need to give to each child and do it in a timely way. So it's through the DELTA Project I was able to get ideas on ways of meeting all or most needs in the room and not feel like I was shortchanging anyone, boring anyone, or giving an assignment that was too difficult.

DELTA is empowering to teachers as well as to students:

Josy Nolin It was just a very exciting three years. I felt not only like I empowered the kids, but it was empowering to me, because I was able to create this curriculum and work with these artists who are just phenomenal. It was an opportunity that I've never had, and I do worry that I might never have again, because they opened my eyes to so many different things as far as education and how to keep it interesting and how to become a better teacher. Because in the end it's all about the students and helping them grow and progress.

DELTA arts-integrated teaching and learning positively affects literacy teaching and learning, but not necessarily in the ways current literacy tests measure literacy:

Josy Nolin This year, for example, we're talking about adjectives, describing words. And if I were teaching those in the past I might just have talked about them, identified them in a poem. But now I'm also aware that I can have kids act out an adjective and have other people try to guess what it is, I can have children write an adjective but give it attributes of that word, so that not only are they showing that they understand the adjective but that they understand multiple levels of meaning. That's definitely the change in my teaching, that there's always some way I can integrate drama, I can integrate music or movement or the visual arts into literacy instruction.

However, I am not sure the literacy tests we are using currently are going to measure much direct change in our student performance related to the DELTA Project. For example, I had a student who was quite low as far as his literacy skills, his vocabulary, and even though we worked with him quite a bit and he was very much into the DELTA assignments and was able to complete the assignments and draw, he didn't improve very much in terms of DIBELS (Dynamic Indicators of Basic Early Literacy Skills) scores or anything like that. So even though there was progress in other areas of engagement, the translation to our current standardized tests of basic early literacy skills weren't there. That's because the DIBELS mostly focuses on how many words per minute they can read. Teachers understand that we can have children that are actually very strong

readers in terms of their comprehension and what they're able to read, they just don't yet read very quickly.

Summary of the Sumner Academy Case Study

The third case study ends with testimonials of success in terms of project planning and implementation over the three-year period of the project. The report tells the story of the long-term collaboration between a visual artist and classroom teacher who together transformed classroom practice in terms of the scope and depth of its focus on language literacy skills. This transformation is documented in their joint DELTA portfolio, yet evidence of change clearly did not occur as a linear process. In the third year of the project, for example, the visual arts DELTA unit had to 'go back to the drawing board' because of extreme counter-productive behavior problems. Consequently, this case study did more to chronicle the range of adaptability that an arts integration process brings to improving learning – be it academic, artistic, or, due to unexpected circumstances, social – as opposed to an 'out of the box' curricular resource that could work regardless of the presence of a collaborating teaching artist, participation in ongoing professional development, and a commitment to systemic documentation processes. On the other hand, discrepancies among the three case studies in terms of quality of collaboration of art forms and uniformity of documentation processes suggest that more standardization of practices is needed before results of DELTA dissemination can become predictable.

The description of student learning outcomes in the Sumner case study echo much of the enthusiasm for the DELTA project expressed in the previous two case studies. Once again it is clear that the DELTA process provided many new windows onto literacy processes for the classroom teacher. Josy Nolin saw that her children were engaged productively in literacy through creative writing and illustration projects that took root in their classroom culture as a result of the DELTA project.

The Sumner case study also reinforces the finding that the more documentation teachers and artists produced, they more able they were able to describe the value of the DELTA project for engaging students with an expansive range of literacy objectives. However, out of the findings reported at the end of this case study the issues of learning transfer raised a major caveat for the entire study. It appears that the more CPS classroom teachers are convinced about the value of the DELTA project to their classroom practices, the more skeptical they become about the translation of DELTA learning outcomes to improved test scores. Therefore, new assessments may be needed to validate the impact of the DELTA project than were available in this study. If the literacy measures used in the school system are focused on narrowly defined decoding skills, then alternative assessments are needed to assess the larger and cognitively rich issues of reading comprehension or effective writing – let alone arts-based measures of literacy such as illustration, visual word play, or symbolism in broader social contexts such as the mural paintings featured at Sumner.

The next section provides a review of findings culled from the three case study approach to the DELTA project evaluation, and will set the stage for probing teacher interview responses, survey data, teacher observations, and student work samples for evidence of program outcomes not yet revealed by the rich description and illustration of individual DELTA case study classrooms.

IVD. Results and Implication of the Three Case Study Reports

The Three Case Study Model Building Methodology

The case study reports described above offer three different examples of exemplary DELTA practices in each grade level and with different art forms. Documentation collected from ten-week units displayed in the three DELTA Portfolios demonstrates distinct approaches to arts integration practices by CAPE music, theater, and visual arts teaching artists and their collaborating classroom teachers. Dance was omitted from analysis in this report due to insufficient documentation collected throughout the three years of the project.

Relying on examples drawn from the DELTA digital portfolio system (a major professional development outcome of this project), the case studies provided multiple forms of annotated documentation of the sample arts integration work products and processes from the teacher, artist, and student points of view. Thus, the selected DELTA artifacts that are accompanied by the testimonials and findings reported here become guidelines to the validity, success, and applicability of the DELTA case study examples.

The three case studies report lies at the heart of the DELTA model-building process. The credibility of developing early literacy skills through the arts depends on the quality and detail of curricular practices that focus on the integration of music, visual arts, or theater-visual arts with language arts. The three strands of arts integration do each provide evidence for the validity and need for the DELTA project program in urban public schools interested in enhancing and expanding the scope of literacy studies. To the degree that the three strands exemplify three different ways general arts integration practices can be applied to literacy, they demonstrate the range of adaptability of the DELTA units to language and arts literacy goals.

Taking the cases studies as a whole, it is intriguing to imagine an arts-integration curriculum where all the approaches and resources reported in the separate case studies could be combined and made available to public school teachers and students in future studies. Because the integration of arts forms appears fruitful for the artists as well (as in the case of the Miles Davis case study), it may be the case that the combinatorial effect of DELTA units may indeed exceed the impact of the sum of the parts reported here. However, if the combining of arts-integration does not result in equal productivity in documentation and assessment practices (as was the case in all three case study schools), the impact of the integration of arts forms will not reliably predict enhanced program outcomes.

Strand 1: Parallels and Connections Between Language and Music Literacy Processes
[Grade 1, learning to read and write words set to music]

> The first case study was based on the Emmet School first grade music reading and writing project. It was the only fully developed music unit in the DELTA project and was implemented only in the final year of the DELTA project. Adam Busch, an experienced opera singer and music teacher and a teaching artist new to CAPE, designed, implemented and documented a DELTA unit based on music's parallels and connections to language literacy. Through a ten-lesson unit, he guided students through a process of

developing a hands-on understanding of developing music literacy skills and their application to language literacy through lyric and songwriting problem-solving tasks. Adam designed and administered pre-post documentation of individual student and group work.

The Emmet DELTA portfolio exhibits and artifacts demonstrate how songwriting has many built-in connections with language literacy, and how a music teaching artist made sure that these connections reinforced vocabulary words, spelling, syllabication, and rhyming schemes at the level of language literacy the students were able to master. The unit featured music reading, writing, and composing skills that incorporated linguistic and mathematical problem-solving tasks authentic to music instruction not otherwise available at the school. An analysis of the curriculum unit plan suggests how music teaching artists can create rich, criterion-based frameworks for music-integrated literacy lessons for early elementary school.

As a result of this DELTA unit, Jurrate Moore, a first grade teacher, could see how music enhanced her students' literacy skill development and alleviated behavior problems in her class by engaging her most challenged students. Adam's lessons were well-received by all teachers at the school and demonstrated clearly that music belongs in the school curriculum not only to provide music learning for enthusiastic students, but also to help the school meet its language literacy goals. After Adam's DELTA Portfolio presentation to CPS teachers, the Emmet School principal remarked to this researcher that although her school has not hired a music teacher for years, she now understood how music integration could work in the academic classroom lessons. She added that she would now favor hiring a full-time music specialist for her school, but only if that teacher demonstrated the music-integrated music instruction skills that Andrew demonstrated in the DELTA project.

Strand 2: The Triangulation of Dramatic, Visual, and Language Literacies
[Grade 3, theater-visual art story writing and bookmaking projects]

The second case study was based on three years of DELTA project development at the Miles Davis Academy. The DELTA story writing and bookmaking project was a constant work in progress. By year three, however, Kevin Douglas (theater artist) and Mary Tepper (visual artist) collaborated seamlessly with LaShuan Woodland to involve third grade students in the creative process of story writing and the production of storyboard books that demonstrated an impressive sense of detail, character, circumstance, and surroundings. With the benefit of both the theatrical and visual arts, this project focused directly on narrative and visual illustration skills that the classroom teacher was eager to include in her language arts curriculum. Once the DELTA project ends, Ms. Woodland plans to sustain the essence of the storytelling-bookmaking project as best she can; she feels that by valuing creative choice and expression throughout the project, the artists brought out an entirely different level of student engagement in the literacy learning classroom.

At Miles Davis, students learned the elements of acting, character creation, dialogue, and dramatic composition and were able to demonstrate their understanding of these concepts in their increasingly sophisticated illustrations of their original narratives in storyboard form. Often working in groups, the students discovered ways to create their own *literature* and, as a result, they were motivated to improve their use language skills to communicate their stories *literately*.

Strand 3: Building a Classroom Learning Community and Enhanced Literacy Skills Through the Visual Arts
[Grade 2, visual illustration, word play, symbols, portraits, mural-making]

The third case study at the Sumner Elementary School is of particular importance to the DELTA analysis, because it offers the most extensive evidence of how a single art form, visual arts, can be deeply incorporated into the literacy curriculum through substantial collaboration with the classroom teacher.

In the DELTA portfolio, Josy Nolin, her colleague Dana Goryl, and Juan Carlos Perez succeed in documenting systemically their joint investigation into how the visual arts can stretch second grade children's engagement with language arts and social studies beyond the conventional boundaries of literacy instruction. Each year the visual art-classroom teacher teams created a different project and wrote a different unit. The first year's unit investigated the relationship between motions and color; the second year's unit explored the civil rights movement; and the final year's unit focused on community building and social-emotional development through the creation of a class mural.

The Sumner case study also provides a valuable description of the dynamics of the arts integration collaborative process. Although the principles of arts-integrated instruction may have remained constant over the course of the DELTA project, every step of the process at Sumner depended on the responsiveness of the class to the structure and content of each lesson. The sudden changes in student behavior and attitude toward arts or literacy learning activities could not be ignored even in the most tested of arts integration lessons. Thus, arts integration practices existed in a state of constant transformation until traction was achieved   For the classroom teacher and visual artists, this traction was established gradually, as students were able to engage in a mural-making process as a way to focus on both art and the community-making process and, as the project progressed, to understand that the mural-making process is in itself a community building process. Literacy goals at first were on the periphery of the art- and community-making process.

For CAPE artist Juan Carlos Perez, taking up a traditional mural project was a perfect entry point for the children into arts and language literacy content. For second grade teacher Josy Nolin, the shift away from conventional literacy instruction to community building and mural making was not a compromise. The mural project was a strategic priority for engaging language arts learning in the context of building a wider and deeper concept of literacy that includes community and self-discipline.

The sudden refocusing of the arts integration activities toward the mural required that Juan Carlos and Josy adapt literacy concepts and skills into the mural-making process. Word play, linguistic symbolism, and journal writing emanate from the community characters and scenes the children created for the mural. Patterns, color mixing, and foreground-background issues became topics of discussion that promoted arts literacy skills. Thus, literacy studies were transformed by consideration of community literacy and the power of visual arts to portray a cityscape as a diverse and vibrant living and learning environment.

The Limitations of the Case Study Analysis

The case study reports provide many good answers to the inquiry question, *To what extent can the teaching and learning of early literacy skills be enhanced through collaborations between professionally trained teaching artists and classroom teachers?*

When the DELTA portfolios were presented to the 26 Demonstration Schools during a full-day CPS professional development event at the end of the project, the teachers who attended these workshops were excited by the rich description of the curricular units, the examples of student work, and the teacher testimonials that formed the structure and substance of DELTA case study portfolios. After hands-on demonstration of the units and powerpoint presentations, teachers and the workshop presenters spent hours discussing implications of the DELTA project for literacy. Where there were concerns about its relevance to literacy teaching and learning, the portfolio presentations were structured in such a way that demonstrated good alignment between standards-based literacy and arts instruction and the goals and practices of the DELTA case study schools. In short, the presentation of the DELTA model was well received, and the baseline dissemination requirements of the project were met both by viewing exemplary work from three academic classrooms.

For an audience of experienced teachers, a clear presentation of classroom practices and a series of case study reports is needed to imagine adapting DELTA into their classrooms. For the purposes of responsible advocacy, policy and research, however, the limitations of the case study raises important questions as to the limits of interpretation of the findings reported so far. Two principal concerns can be framed as:

- Questions about the generalizability of the case study findings. Do the DELTA case study exemplary work portfolios represent well the project as a whole? The answer so far is that these presentations richly describe the potential success of the DELTA model in ways that we know can be replicated and be well received by teachers. Exemplary work indicates only the top end and not the full range of response and quality of the DELTA project implementation.

  Further investigation in this report based on survey and interview data will provide evidence that suggests that the conditions of support even in the exemplary classrooms were less than optimal, indicating that far more could be achieved in schools more familiar and committed to the DELTA project implementation.

- <u>Questions about the validity of drawing meaning and conclusions based on evidence presented in the case studies</u>. What can we infer from the qualitative analysis of the data presented so far regarding its benefits for teachers and students in other schools? In this case, we know that when the program works, participants will testify strongly and publicly to the value of DELTA professional development, teaching artist collaboration, and the benefits for highly challenged students or classrooms, based on informal and largely anecdotal evidence. Is there other evidence of success besides the case study reports?

  Further investigation in this report based on survey and interview data will provide evidence of changes in teacher attitudes and perception of the DELTA program as it progressed over the three-year period. Results from these data sources will convey the extent to which teachers view the importance of the DELTA program to their own classroom practices and, at the same time, will point to their growing uncertainty as to what practical methods of documentation and assessment can be used to capture the impact of the program in relation to standardized tests of student achievement.

  Later sections of the report will describe the creation of new instruments designed to assess student arts learning in the context of arts integration projects. Information gathered will provide some statistical evidence for changes in student learning and reflective thinking in the arts and their relationship to academic achievement.

We will start the second part of our report with analysis of teacher-artist interviews and proceed afterwards to quantitative analyses of teacher attitudes, expert observation of teaching practices, and the evaluation of data gathered from DELTA student work assessment instruments.

V. Artist and Teacher Final Interview Analysis

Qualitative Analysis Methodology
An interview protocol for CAPE artists and CPS classroom teachers featured in the case study reports was developed for the final year of the DELTA project (See Appendix E).

The purpose of the interviews was to sample retrospection on the challenges, successes, and failures of the DELTA project from each of the three case study schools. Five topic questions were introduced:

1. What is your assessment of the quality and degree of support that you received from collaborating teachers or artists, CAPE staff and professional development programs, and the school in order to succeed with the objectives of the DELTA project?
2. What are examples of the success of the DELTA curriculum implementation in relation to student learning?
3. To what extent did new forms of arts learning and/or arts-integrated language literacy practices develop in schools that were linked to the DELTA project?
4. What was the impact of DELTA arts integration instruction and documentation practices on public school classrooms and whole school culture?
5. What was the impact of the DELTA Project on your practices as a classroom teacher or teaching artist?

The analysis of the interview responses was conducted in two ways: (a) *direct* responses to questions posed in the protocol were analyzed as evidence of meeting the stated goals and outcomes of the DELTA program evaluation, and (b) interview responses were coded for *emergent* topics or common themes derived from the overall responses to the five questions.

According to the qualitative analysis, the following topics emerged from the analysis of the responses:

- Trajectories of Program Change/Growth/Development over the three years of the DELTA project
- Personal Concerns/Failures/Regrets as Participants in the Project
- Degree and Kind of Conditions of Support
- Descriptions of Success
- Concepts of Arts Literacy
- Impact of Arts Learning on Arts-Integrated Language Literacy
- Concepts of Integration that Factored into the DELTA project

The findings below reflect the confluence of the 'direct response' and 'emergent theme' strands distilled from the analytic process. In all cases, responses are referenced as either "CT" (classroom teacher) or "TA" (teaching artist) to protect the identity of the particular school participants and thereby promote candid responses during the interview process.

Interview Response Findings

The Interview responses provided much of the descriptive data in the previous case study reports that were based on the exemplary DELTA digital portfolios. This section features findings from the qualitative analysis not previously illustrated in the case study reports. Findings are based on the degree of support received from testimony of classroom teachers and/or teaching artists; quotations are included to ground or elaborate on the findings.

Interview Finding 1: The Degree and Quality of DELTA Program Support was Mixed

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It is obvious from the teacher and artist responses that they did not benefit from uniformly positive support conditions throughout the project. Whereas the professional development program events and resources received generally high ratings throughout the project, the lack of school administration support prevented the quality and degree of collaboration necessary to optimize the DELTA program curriculum design and implementation during the three years of the project development, or to sustain arts integration practices once the DELTA program funding was no longer available. The collaboration among the committed classroom teachers and teaching artists improved significantly as the project progressed.

(a) *CAPE received generally high marks for preparing and mentoring classroom teachers and teaching artists through ongoing professional development support; supplies and communications generally worked, but teaching artists were vulnerable to a feeling of isolation in schools until they got to know the teachers well:*

> CAPE [was] very supportive from the beginning; they were there to provide anything that I needed, supplies or anything. (TA)

> CAPE was very supportive and provided us with effective professional development. I was able to go and see, for example, what the drama teacher was doing and get ideas and bring that back. I was also able not only to integrate the dance and visual arts that we already had at our school, but I could bring back ideas from the other schools and introduce drama, for example, into the classroom. (CT)

> There were times that I did feel like I was on an island at my school and was waiting for the CAPE person to show up. I did my first class without any physical support at the school, so it was a little strange for my very first time to be on my own. CAPE can't be everywhere at once, and in the end they would always be there and everything turned just fine, although sometimes communication did not always work. (TA)

> One of the best parts of this project for me was my continual learning. When we first met, they said, "Take a chance - it's OK as an educator to learn from failure." That's an incredibly freeing thing for a project leader to say, because normally we are told as teachers that everything's got to be a rock solid, a plan in place, and the kids have to succeed the from the start. In DELTA, it was "OK, let's go for it.

Let's put the bar really high and see what the kids come up with, and see what they can do." (TA)

Implications: CAPE Professional development is a key ingredient of the program and ongoing communications and support conditions are especially important to the teaching artists in the first stages of the program development phase of the project. Granting the teachers and teaching artists latitude for experimentation with curriculum design and revision created a positive ethos of teachers as creative and reflective practitioners.

(b) *Critical levels of teacher and teaching artist cooperation and collaboration were essential to the continuity and success of the program. Indicators of effective and ineffective collaboration took many different forms:*

Effective Collaboration:

Early on in the project, CAPE held professional development meetings where they brought in teaching artists with their teaching partners who presented different examples of collaborative work. So usually after my classroom teacher partners saw the examples, they'd come up with all of these fantastic ideas; they had a better understanding of the way the program works. Then they became involved in the prepping and the planning before and in the middle and even towards the end of the project, so when I came into the classroom we were both teaching at the same time. (TA)

At my school there was a pretty supportive core group of teachers. They were very close with one another, and the classroom teachers were very helpful in giving me the guidance as to what they wanted to do. For me, literacy was a new angle on arts education. (TA)

Once the teachers realized that what I was providing was actually helping them with the test content areas, they were a lot less resistant. (TA)

I appreciated that the teaching artist made sure every day before he left that I was comfortable with what he was doing in the classroom. (CT)

What really helps a lot is when an instructor is really excited about this project right from the prep time, and is involved in development or already familiar with what the project is about. (TA)

Ineffective Collaboration:

You have to have that peer support system there for teachers and teaching artists, and it just wasn't like the classroom teachers were willing to do that at first. I feel if they knew that I was there to talk with them or give them ideas or listen to their ideas, that the benefits for the kids could have been greater. (CT)

Even though there were preplanned sessions, some teachers were completely surprised every single time I walked into their classroom. I think when the

children see that the teacher's not invested 100% it kind of trickles down into how they will react to the program. (TA)

There were things that <u>I wished that the classroom teachers could have continued to support from the DELTA lessons in their own classroom time,</u> and I did express that to them, but that always got a passive reaction. (TA)

<u>New teachers to whom this project was just thrown onto their lap weren't happy.</u> They rolled with it only because they felt like it was something they had to do. (TA)

Implications: Rich collaboration among the teachers engenders respect, inspiration, and a greater understanding of the relevance of the DELTA program to student achievement. Several dimensions of teacher collaboration are necessary for the DELTA project to succeed. Key factors for success stem from (a) professional development sessions that feature work resulting from successful collaboration, and (b) the classroom teacher's ability to embrace teaching artists as partners in literacy instruction. The testimony of teaching artists in particular indicated optimal conditions of collaboration are needed for the success of the project.

(c) *The degree and quality of peer support and collaboration among the teachers and teaching artists improved over the three years as the program began to focus more on the particular contribution of arts learning to literacy development:*

<u>Sample First Year Comments</u>:

The first year a couple teachers were kind of resistant. The school was so focused on testing that <u>it seemed like some of the teachers would have rather used the time that I was there to work on testing things rather than to have whatever I had to provide.</u> (TA)

<u>Sample Second Year Comments</u>:

<u>I felt like the second year I was beating my head against a wall,</u> and it was just really frustrating. (TA)

I think the reason why <u>the program didn't work in the second year was because we didn't receive the artists that we should have</u>. (CT)

The first year was more vocabulary based and sentence drills that did not connect well with our work. <u>The second year was more about learning stories and retaining information and inference and problem solving</u>. (TA)

<u>So what happened was we ended up collaborating all the time, not just at the school. We exchanged phone numbers, and I was able to call him and ask him many questions,</u> and he'd say "Did you understand?" and "This is what I'm trying to get it over to the children." (CT)

Sample Third Year Comments:

This year the light bulb finally went on, and connections with the curriculum was made. I think a lot of growth happened this year as a result. (TA)

The teachers were very supportive and really wanted this project and I think really saw the impact it could have on their classrooms and on their community, at least with those grade levels. So they were sometimes not very focused, but very supportive. (TA)

So when I came in the class, they put their books away and were ready to start, ready to dive in. The classroom culture in there for the whole year was just excitement, and she was always right there taking notes; she never left the classroom. She was always there getting involved and challenging the students as well. (TA)

Implications: Sustained collaborative teaching fosters a more sophisticated approach and understanding of children's literacy skill development. As the collaboration between the teaching artist and classroom teacher improved, students were more challenged and excited about their DELTA work.

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> **Finding 2: Teachers and Teaching Artists believe that the DELTA Program Succeeded by Going Beyond the Parameters of Conventional Literacy Instruction Practices and Test Performance Outcomes**

The range of success of the project was indicated primarily by an expanded awareness of literacy learning outcomes related to student exposure to a variety of art forms in the context of arts-integrated learning processes.

(a) *DELTA enhances children's self-esteem as learners:*

> I would like to think that I've built their self-esteem over the years, not just with artistic skills but also developing writing skills based on imagery in combination with writing to express themselves. (TA)

> I had students who had behavior situations, and when I told them "I'm going to let you work on the accordion book," the behavior problem was gone. I was able to collect work samples of where they started to where they ended, and I saw a behavior and academic change all of the way through. (CT)

> A classroom teacher was trying to use a little bit more of the visual arts in her classroom, integrating that to see if she could tap into the kids more, and it has worked for her. (TA)

> When the class didn't seem like they wanted to go with the regular curriculum, I'd pull in some of the DELTA project work and say "Let's work on it," and it calmed them down. And I found students later asking me "Can we work on DELTA project?" (CT)

Implications: Social emotional development as indicated by self-control, ability to take risks, self-esteem as learners, and the ability to work independently and through peer learning structures is inextricably linked with DELTA outcomes. Developing early literacy through the arts demands that both classroom teachers and teaching artists understand the positive effect of creative choice on students' motivation to express their language skills more effectively, although this improvement may not be captured well in conventional basic word fluency or vocabulary tests.

(b) *DELTA promotes sustained collaborative approaches to teaching literacy skill development:*

> In this project we really collaborated on literacy. Classroom teachers were able to give me honest opinions about what's working and what's not working, and we were able to work and develop it further. (TA)

> Later in the project, it made me happy that what I was teaching wasn't only being used when the artist was there, but was being used throughout the week during their class. (TA)

> I think because of the project it's made me more creative where arts and literature are involved with literacy teaching. (CT)

Implications: A key objective of the DELTA approach to collaborative teaching is to unleash creative process and reflective understanding of the arts and arts-integrated instruction among both classroom teachers and teaching artists.

(c) *DELTA produces alternative language literacy outcomes:*

> I found with my low readers that I could not make out anything that they were writing. By the end of the program I told one of the little boys to write in his DELTA project journal, and I could make out pretty much [everything] he was saying. So there was the change. And his mother even saw change in his work. (CT)

> The DELTA approach to literacy allows the children many different ways of expressing themselves. (CT)

> We worked with the student quite a bit, and he was able to complete the DELTA assignments and draw, but he didn't grow very much in terms of standard literacy skill tests. As far as his standardized scores or anything like that were concerned, there was very little improvement. (CT)

> I definitely saw an increased vocabulary in the three years. We wanted to build their oral, their written vocabularies, because this was where a lot of our students were falling behind in comparison with other schools in the city, other schools in the state. And I also saw that a lot of the kids' writing, whether it just be in their personal journal or in their reflective journal they were doing in class, became much better in terms of creativity and expressiveness with this project. (CT)

> I was a teacher who didn't like art. If it takes art in order for students to express themselves, then I have a lot more of it now. I am no longer dictating to them what to draw or what to write about. I'm able to let them do freely what they want to do. Create your own story. Use your own characters. Now I get better results because I didn't dictate what to do. (CT)

Implications: The DELTA program leads to alternative methods of approaching conventional literacy skill objectives, and results from these alternative strategies may

address higher order writing and thinking skills across domains rather than serving as reinforcement for basic literacy skills strictly in the language arts.

(d) *Sustaining arts-integrated learning with the school arts teachers:*

> Well, we were talking about the fact that the DELTA Project was ending and that <u>I'd like to do more in terms of collaborating with our resource teachers, like our music teacher and the art teacher, to try to create some connections between the resource classroom and the regular classroom in the future.</u> This idea creates issues because a lot of the children see arts as just as a time when they can play, so I feel like if we made that connection a little bit stronger to learning than that could also diminish behavior problems and those issues in the resource classroom, and make their time more well spent. The resource teacher said that she would be more than willing to work and plan with me. (CT)

Implications: According to classroom teachers, sustaining the DELTA project will require involving school arts teachers as teaching partners, a strategy not supported by the scope of this project. Future research would do well to study the training of arts specialists to support school-wide literacy objectives that enhance both arts learning for its own sake and for its contribution to arts-integrated learning in the academic classroom.

> **Finding 3: Both Teachers' and Teaching Artists' Understanding of Arts Learning Processes and Products Increased Throughout the Development of the DELTA Project.**

In order for classroom teachers to integrate arts into literacy instruction, much time was spent observing how arts learning processes engage children in their classroom. Interview responses indicate that:

(a) *Arts learning processes promotes learning from mistakes:*
Academic work requires so much structure that the students go "Oh my goodness, I need to get this right or else." Whereas <u>with the arts it's clearer that it's ok to make a mistake as long as you learn from it.</u> (TA)

(b) *Arts learning can be used a tool for developing narrative:*
<u>Arts can be used not just as a form of self-expression, you can use it as a tool to focus on expressing narratives</u>. (TA)

(c) *Arts learning functions as an alternative mode of learning:*
Some of the kids who usually have a harder time in school or have a harder time with academics, <u>some of those students work on academics better artistically</u>. (TA)

With our visually stimulated society <u>it makes sense to see television as a way to learn storytelling through the arts</u>. Television is not going away, so why not use it to teach? (TA).

(d) *Arts learning in the context of literacy instruction synergizes learning:*

> Well, I think <u>once they've created images for their book, kids really try harder to write well…</u>because they want their story to succeed. (TA)

> <u>We are able to pick out what theatre game works best with what we're teaching,</u> and those games can then transform and change and become more challenging for students, depending on the assignment given or the task at hand. (TA)

> But then <u>as the integration of visual art with literacy progressed, it became more something that was going to improve the classroom community</u>. (CT)

> <u>You can tie anything to arts learning</u>. You can make a science lesson and integrate art with science, and arts with social studies, and arts with health. It is just the way the teacher uses the approach. (CT).

(e) *Engaging student arts learning processes enhances understanding of literacy:*

> If you just throw a whole bunch of words to someone, I don't think students will learn from it. You have to tie something else with the words in order to make the student want to learn. Now we might go over new vocabulary words and I'll say, "Tell me what you know about the word," and we build on from there by asking "Have you ever heard that word before?" <u>Sometimes they look at a word and they can put a picture with it or sing it. Understanding comes a lot more out of the students.</u> (CT)

> I'm now aware that I can have kids act out an adjective and have other people try to guess what it is, so not only are they showing that <u>yes they understand the adjective, but they also understand and can express its meaning</u>. (CT)

Implications: Arts learning in the context of arts integration activities creates an ethos of student-centered creative process that deepens and broadens the understanding of literacy concepts and skills based on their representation across disciplines.

Finding 4: Over Time, DELTA had a Strong Impact On Classroom Teaching Practices, Less Impact On Whole School Practices

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Testimony indicating teacher transformation demonstrates that the DELTA program presents a distinctly different approach to teaching practices that can only enlarge the scope and understanding of authentic literacy practices and processes across academic, artistic, and social emotional domains of human development.

(a) *Indications of Change in Classroom Teaching or Teaching Artist Practices:*

> <u>I became more aware of how every assignment, every standard or benchmark that I'm responsible for teaching the kids, that there's a way for me to integrate the visual arts.</u> (CT)

A major part of integration is making music both a part of your daily routine and a way to reinforce your arts-integration goals. And there are lots of ways to do this through music. Just speaking can be musical. Lining up to walk to the lunch line, you can do that in rhythm. (TA)

The old way of teaching is hard and clearly not always successful. The arts demonstrate that all kids learn differently. (TA)

DELTA has really helped me develop as a teaching artist. DELTA is the first program I've done where the artist is required to meet with the classroom teachers and actually really try to work together on whatever given goal that we may share. Whereas in the past it's like, "Oh, wait, the teaching artist is here. Ok, thank you teaching artist, bye." In this we really collaborated. They were able to give me honest opinions about what's working and what's not working, and we were able to work and develop it together. (TA)

Implications: The fluency by which teachers connect concepts and processes shared across arts and academic disciplines is in itself a positive professional development outcome of the DELTA project. It is also this skilled fluency that indicates that the DELTA project will have a lasting effect on the individual teachers and teaching artists participating in the project in terms of curriculum design and collaborative teaching implementation in the future.

(b) *Indications of change in classroom dynamics and culture*

If you walked into my classroom two years ago before DELTA and now walked in two years later, you would see a difference. More engaged learning. More cooperative work being done, students can learn better from a peer tutor. And students have more patience with themselves, because before I might say "Why can't you understand?" but now we have a more relaxed mode, and I am more likely [to say] "It's going to take some time." Now I'm more laid back, and I always try to make the room supportive, and always centered around student learning. (CT)

Sometimes I even joke with my class, and I don't make it stressful for them all of the time. There's a time and a place for everything. Learning often should be something that students enjoy; therefore I have to loosen up, and I need to get down to their level to make students want to learn, make learning more inviting, just let them know that learning should be something that students can look forward to each day. I want to hear them say, "I can't wait to get back to school so I can learn." (CT)

Now I also ask my students before they leave, "How did you feel about what we did today?" And they express themselves to me—because a lot of the times they hear about the next teacher they're going to have, and they dread that teacher, and sometimes they'll say, "Oh no, I don't want to go to her class." This year I had students come in to me and say, "I really appreciate what you did with the school year, reaching out to me"—and these are 3rd graders! It shocked me that they

expressed the sort of thing I have never heard before since I've been teaching. (CT)

I had a student who transferred from out of town, a boy that has been through so much going from school to school, not living with his mother, being raised by their grandparents. His grandpa came to the school and said, "I know he was a handful." And I can see that this little boy is possibly a slow learner and reading doesn't come easy for him, and he's had a rough weekend, but I can tell him to just draw me a picture, let me know how you feel, and he is able to express himself. Now the students and parents make me more careful of how I approach different situations as a teacher. If the parents are open and honest with you, and a student can tell you what is going on in his life, I am able to receive the data and deal with the child better. (CT)

Implications: Systemic change in classroom dynamics can occur from literacy intervention through the arts. Classroom teachers see that arts learning catalyzes sets of cognitive, meta-cognitive, aesthetic and social-personal dimensions of learning that may be largely ignored in conventional approaches to literacy instruction, especially if teachers teach to tests that reduce literacy skill development to isolated measures of decoding skills. Attention given to parallel symbol systems that engage multiple modalities of thinking and expression deeply involved in composition, storytelling, and illustration appears to change the attitude of the most challenged learners. Such attention also impacts the entire classroom dynamics in a way that veteran teachers recognize as unprecedented in their previous experience of teaching.

(c) *Indications of Change in Whole School Change due to the DELTA:*

Unfortunately, there was no testimony that directly supported whole school effects of the DELTA program other than indications that individual teachers would attempt to extend their arts-integrated literacy practices on their own. Below are interview excerpts that speak to the comparison between classroom and school change:

As far as what will be sustained, that's just a big question mark. As far as the teachers, I think that everybody involved will take away what they can and what they can incorporate and what they're comfortable with. I think it did open their eyes. These kids are full of rhythm. These kids are constantly moving and tapping pencils and banging hands on desks, and I think this project let [the teachers] see some of that as more than just distraction and noise. And as far as how they might control their classroom when things like that are happening, they might use the kids pounding on their desks for scanning out their sentences rather than just [saying] "Hey, stop making noise."

I do know that some of the teachers have started to, or at least had started to, incorporate a lot of musical aspects into their classrooms. Some of that was playing music in the mornings, because it did have a calming effect. Some of it was the pneumonic device of teaching – turn it into a song with words that they

are supposed to know, and they're going to end up remembering the song and the words in the song.

So as far as school change is concerned, I'm not sure. <u>They talked about hiring a full-time music teacher who does literacy integration at the school, and that would be fantastic if it happens.</u> So I mean there are small things that will continue to have an impact on their classrooms, but as far as the project itself, you know, sadly my gut tells me that these kids aren't going to have music again, or dance, or art, or anything else. That's the feeling I get from the administration. (TA)

<u>I'm disappointed that the DELTA project is not continuing, because I think the current first grade batch was just amazing, and I would have loved to follow through with them and see what happens to them by grade three, because I think what we pulled off this third year of the project was just phenomenal.</u> I went in to this school with huge aspirations for DELTA, for the school, and I thought the principal had a full understanding of what was going on, but by the second year I found it really difficult at the school. Not so much with the kids, but just the administration and teachers. It's frustrating because the program ended when I think that connection finally really happened. (TA)

Implications: Despite frustration with the early stages of DELTA program development, teachers and teaching artists clearly yearned for the continuance of the DELTA project. Many felt that it took three years before the connections between arts learning and literacy development were demonstrated and understood, both from a practical and substantive standpoint. Consequent efforts to disseminate the DELTA program could be greatly facilitated by the chronicled documentation of findings, challenges, and lessons learned based on the DELTA portfolios and on the preliminary data analysis presented in this report.

Finding 5: Themes Emerging from the Interview Responses

Interview responses from the teaching artists spawned significant inquiries into the nature and scope of the DELTA study: (a) the concept of artistic literacy that challenged teaching artists to re-examine the contribution of their particular art forms and their potential for enhancing language literacy skills, and (b) changes in arts teaching practices due to the focus on arts skill development in the context of arts-integrated literacy projects.

Teaching artists were asked why the arts work so well to enhance general characteristics of literacy. Kevin, for example, provides a meta-cognitive view of arts understanding. That is, from understanding literacy from the point of view of artistic process, students can avoid programmed or rote learning and can immediately see, from the point of view of the theater arts, how literacy skills develop primarily through multiple discipline-specific, problem-solving experiences.

> **Kevin**: I think arts literacy is being able to use deductive reasoning that helps students become free thinkers. A lot of times, or I know when I was growing up,

looking back, learning seemed programmed. Things are this way, this is how it is, and a lot of times it's just memorizing, and you don't know why you're memorizing, or why this is, and by the time you leave school you forget a lot of things that have been put into your mind. Honing problem-solving skills helps give you other ways to find answers.

Thus, when students are asked to create stories, they have many more problems to solve than when asked to memorize stories. In DELTA assessments, Kevin reports:

> … it's just amazing how kids were able to give examples of why certain things did not make sense, or why the story did not make sense, or why the story could not go in a certain direction or vice versa, or why it did go in a certain direction. And to see that change from the beginning of the program to the end, it's just, it was just great! I just think it's necessary for language literacy to grow out of problem-solving tasks in the theater activities. And I know kids like to have fun doing this.

Another aspect of problem solving that is built into arts-integrated learning are matters of focus, differentiation, synthesis, and reflective thinking.

What DELTA has done is focus a particular form of arts learning in the service of enhancing problem-solving skills in another discipline. A DELTA theater lesson might provide a particular focus on vocabulary, while another lesson focuses on how a story works. In both cases the lesson is considered as germane to theater arts as it is to language arts literacies. And as dramatic story writing and acting processes are explored, so are reading and writing skills studied in the form of problem-solving tasks within a certain genre of dramatic writing. Thus, focus on DELTA theater tasks allows students to reflect on the synthesis of language and theater literacy skills through the study of fundamental concepts and processes shared between the two disciplines.

Kevin Douglas points out that the tradition of improvisation in theater helps actors solve problems through acting. Kevin uses this technique to focus on skills the teachers need to see children address through a synthesis of acting, storytelling and, with his visual teaching artist partner, illustration.

> **Kevin**: Viola Spolin, the mother of improv theater, developed exercises to help actors solve whatever problems they had. Her work is where I got a lot of my exercises that I used in DELTA. I'm using it with the kids to address whatever the teacher says they need work with. I'm able to take what they need and then go back, break that down, and develop a game or use a game that's already in existence to help them with whatever they need help with, whatever they need to work on.

Similarly, Adam Busch was challenged to define music integration literacy enhancement with respect to his teaching literacy strictly within the discipline of music. For Adam, differentiation and synthesis constitute a fluid understanding of musical literacy:

> **Adam**: Music integration is the use of rhythm and rhyme and melody in everything else you're doing. To me, it's the heightening of content of the subject which you are looking into, whether that's reading a story book and bringing it to life through the use of sound and rhythm, or the understanding of rhymes and scansion, whether it's a famous poem, a student's daily poem or daily sentence, a song lyric, or Shakespeare.

According to Adam, the connection of music literacy concepts and skills is not a difficult bridge to cross. Although music uses an entirely different symbol system than language, the more one's knows about musical literacy, the more likely one can understand its deep connection to other domains:

> **Adam**: I don't know if this is an odd statement to say, but music integration is not so hard to do. It's just something that people need to be aware of, because it's a part of what they are doing already. You know music itself is just such a broad and accessible art form, and everything from turning your poem into a rap, which in this environment has been done successfully, or making your spelling words into a song. It's heightening what you are already doing in language literacy classes, maybe making what you are doing more fun and accessible to kids in the classroom. Although it's the front door for me, maybe it's a back door to learning for some of these kids. And I think that, for teachers, it's not thinking that it's taking away from your lesson plan time. Music integration means that you can do the exact same lesson plan you've got planned, but instead of just reading a book you can make it a song, make it a rap, do whatever.

As simple as this sounds in theory, in practice music integration yielded many surprises once Adam joined the DELTA project.

> **Adam**: I think it was a challenge and a surprise, and I can walk away from the DELTA project feeling confident that it's work I can do. Confident that, even though I didn't go to grad school to learn literacy, the challenge to meld music with language literacies is something that I, as an artist, am adding to the things I like to do and teach. In the end DELTA was, in many areas, a successful program that had a positive impact on the students' lives this year.

A second theme embraced changes in arts teaching practices due to the focus on enhancing arts integration skill development. Teaching artists discovered that literacy-focused arts learning was not simply a matter of 'adding arts to the mix and then adding water.' On the contrary, veteran CAPE artists and veteran public school teachers were surprised to find that arts learning had in some cases to be reconsidered when held to accountable standards of language arts learning.

We saw that Juan Carlos Perez, for example, was forced to revise longstanding visual arts lessons in order to gain traction against children's distraction from behavioral patterns and frustration with reading and writing assignments at school. Adam Bush had to dramatize his music lessons artfully while breaking up fights in order to capture the attention and gain

credibility with his kids as a serious teacher and musician. And once Adam was able to maintain order so that he could assess the students' baseline linguistic skills needed for his songwriting unit, he discovered to his dismay that half the class could not identify rhyming patterns from a short list of one-syllable words.

Mary Tepper, a visual artist who focused on bookmaking as a way to further visual arts skills and illustrate stories, found out that teaching for integration sometimes means reversing the order of her book illustration activities. Figuring that most students have more difficulty with the writing end of the bookmaking task, her assignment was to begin with drawing their own stories, then to find a way to write the story into the storyboards. Little did she suspect that she, like academic teachers, sometimes have to reverse expected steps in the process to accommodate exceptional students:

> **Mary**: Well, it was an interesting experience for me, because I usually have the kids develop the imagery first and then they do the writing, and there was one student whose page by the sixth or seventh session was completely blank. He had appeared to be working the whole time, but his page was completely blank. This was an interesting situation for me because it turned out he wasn't visually oriented, and I had to completely change the approach with him. I had him write down his story first and then make the images after that. That was a huge light bulb for me, because the process of art making is so easy for me, and it was completely the opposite for him. He was just struggling, struggling, and trying to fake it the entire time, and every time I would walk by he completely covered up his paper. I thought he was being really secretive about it, that he was just being conscientious and didn't want anyone to see his story. Once I gave him the opportunity to write his story first, he sat down and plowed out his eight pages right away, and then the visual image came after that.

Differentiated instruction applies to both subject areas in arts integration units. In the approach to bookmaking, the story and the drawings stimulate a complementary mode of expression in another discipline. Whether students are setting music to words or words to music, engaging in storytelling that leads to visual illustration or producing visual images that evoke story writing, they are working in fully reversible processes.

Another consideration in creative arts learning is moving from the whole to the parts, or vice versa, drawing on a part to create the whole. Mary describes the cognitively challenging process of storytelling through visual images in terms of multiple layers of foreground-background issues in drawing, character development, action-resolution events, setting, and circumstance. Usually the story-illustration creative process begins with the creation of the first complete image:

> **Mary**: For most students, once you create a character you have to have a place or a location for that character, and that would be the setting. So they create the background, and the character is in the foreground because they're the most important thing that's happening in the story.

So [as was the case with Kevin's acting-storytelling activities] the character is doing something in that setting – so tell me what he or she is doing? So they go from their first image with the character, and the setting is a springboard for creating the rest of the story. So much can come out of that first image. They have to use their imagination and decide what time of day is it. Is it sunny outside? And I point outside, depending on the weather, is it raining or snowing or whatever? So you can pull so much from that very first image. And then, once they've created that first image, then we start going into detail and from there develop the second image. I think that first page or that first rough draft or sketch, whatever they come up with, the character and setting. it's just absolutely amazing what we can pull from that.

Returning to a notion of artful literacy learning processes, Kevin speaks finally of a synthesis of exploration and creativity that brings about freedom of thought and action:

Kevin: I think it [theater and visual arts process coupled with language arts] gives them a freeness. I feel that the students are more free to create and find other avenues of expression and discovery, or to find other ways of thinking about different issues, or different problems, or different ways stories are told, or even the ways that they answer questions about their own stories. Through DELTA, young elementary students are able to really visualize the story that they created, and have learned to know when they've got to start over or revise their work. Developing Early Literacies Through the Arts really opened them up; it really frees students, I think. So yeah, I think arts integration does make a difference for students, yes, definitely.

Summary and Implications of Teacher-Artist Interview Analysis

The qualitative analysis of the final interviews provides an in-depth look at the teacher-teaching artist collaboration process and their evolving view of the nature and effectiveness of the DELTA project. Coupled with the case studies based on DELTA Portfolios, the interview data reveals from the inside out what the three-year process meant to the CAPE artists and their classroom teacher partners as they documented and finally presented their work at the culminating event in this project.

The strength of the project is in the quality and detail of its model curricular, teaching, student work documentation, and professional development outcomes. From this report, these building blocks can be understood and used for further development and dissemination in schools that would more readily embrace CAPE practices and theoretical frameworks for program design and assessment developed here. The interleaved interview data demonstrated a growing sophistication of discipline-specific DELTA practices and conceptual frameworks that define much more clearly the multiple entry points, the reinforcement, and new understanding of rich arts learning approaches to early literacy skill development from the viewpoint of criteria for high quality, arts-integrated learning across multiple arts disciplines.

Revealed also in the interview analysis was a major design flaw in the DELTA project: it was difficult to find evidence that the school administration fully supported the project. Thus, there

was not only delay and difficulty getting the project started, but when by the third year the project gained an impressive coherence in the exemplary classrooms and collaborative teaching, the project ended without a semblance of sustainability in the case study schools.

The following sections of this report turn to quantitative analysis of teacher attitudes, literacy practice observations, assessment of student work, and a study of the relationships among DELTA statistical learning outcomes with academic test data wherever these data were collected with sufficient quality and rigor to be used for analysis.

We start with analysis of pre-post classroom teacher attitude survey data.

VI. DELTA Classroom Teacher Survey Analysis

Introduction

Having delved previously into the analyses of exemplary practices at the single classroom level this section looks more broadly at the overall effect of the DELTA program from the viewpoint of all teachers who participated in the project. Profiles of teacher pre-post responses over time provide a picture of convictions the teachers held about (a) the nature of arts learning in the context of arts integration practices; (b) the likelihood of enhancement of literacy learning through the arts; (c) how teachers increased their capacity for arts integration; (d) the need and usefulness of various assessment tools and methods; and (e) the impact of the DELTA program on teaching and whole school change.

Methodology

Classroom teacher Surveys[2] were administered at the beginning of the project to measure the strength of conviction that teachers held for various aspects of the DELTA program and how these convictions may have changed over time. In a series of analytic frames (as presented below), the data were analyzed in terms of patterns of stability or change in teachers' opinions about the CAPE professional development practices and their application to the DELTA Project.

The teachers who participated in the first and last CAPE professional development workshops filled out the surveys and rated each statement on a scale from 1 to 5 according to their own experiences. The first survey produced a profile of teacher *anticipatory judgments* concerning the potential success of arts integration practices applied to the DELTA program. The final survey results indicate a profile of *adjusted judgments* made after facing the realities of three-year program implementation (as described in the previous chapters of this report).

Each table is constructed to show the *direction* or *the degree of stability* of teacher attitudes over time and the *strength of conviction* of these judgments. Positive or negative shifts in attitudes and the range of conviction are independent layers of analysis drawn from the comparison of pre-post data analysis.

If the average pre (anticipatory) and post (adjusted) judgments are not significantly different, the response is placed in the middle column labeled "stable." If the response average has significantly changed, it is placed in either the "increasingly negative" or "increasingly positive" column.

The "Strength of Conviction" average rating is divided into three *levels of response*: low, medium, and high. Color highlighting indicates unusually strong changes of response over time. Blue highlighting ('cooling off') is used to show categorically different negative trends in the strength of conviction in a response and red ('heating up)' is used to indicate categorical shifts to higher levels of conviction.

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[2] DELTA teacher survey questions were designed originally by Dr. Gail Burnaford and her colleagues at Florida State University, and those reported here were selected and adapted by the NEC Research Center team.

Each of the eleven areas of inquiry of the survey listed below produces a distinctly different profile of pre-post teacher response. When teacher opinions are mostly displayed as "Stable" in a particular profile [Figures 1-3, 5], this means that the experience of participating in the three-year DELTA program has not changed the original expectations of the classroom teachers. However, if responses have become significantly "Increasingly Positive" [Figure 6], "Increasingly Negative" [Figures 8-9, 11], or some combination of the two [Figures 4, 7, 10], the teachers have adjusted their original expectations to the realities of the program experience.

Thus, increasingly positive or consistently high levels of average responses suggest which factors become more relevant with experience in the program. Conversely, increasingly negative or consistently low averages indicate factors that lose relevance over time. Stable ratings, high or low, reaffirm the validity of teacher expectations for the DELTA program.

Profiles of Teacher Survey Responses

As a whole, teacher responses to the DELTA Project Survey questions are neither uniformly strong in conviction nor increasingly positive over time. Therefore, it is the profiles of the responses that provide the difference between teacher assumptions and the realities of practice. The following data displays and their analysis are organized according to five general topics of response: (a) The Nature of Arts Integration Teaching and Learning, (b) Conditions Favoring Successful Arts Integration Approaches to Language Literacy, (c) Building Teacher Capacity Through Arts Integration Professional Development, (d) Views of Assessment Needed to Student Growth and Achievement in the DELTA Program, and (e) Indicators of Impact and Success of the DELTA Project.

—continued—

Topic A: The Nature of Arts Integration Teaching and Learning

DELTA Classroom Teacher Survey Question A-1: What is arts integration? What does it depend on to be effective in schools?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "High Quality Arts Integration in Schools…"

Trends of DELTA Classroom Teacher Attitudes Over Time

	Increasingly Negative	Stable	Increasingly Positive
High		**Depends on instruction that develops essential technical skills/technical elements related to the arts.**	
		Depends on the use of all four art forms to express ideas.	
		Depends on students employing arts processes.	
		Depends on opportunities for students to observe, discuss, analyze, and make judgments about artistic works.	
		Is an effective strategy for students and teachers to learn about peoples and cultures.	
		Is enhanced when they afford students an opportunity to share their creativity.	
		Is an ideal way for schools to connect to the community.	
Medium		**Can be enhanced by knowledge and application of technology.**	
Low			

*(Left axis label: **Strength of Conviction**)*

VI. Figure 1

Pre-Post Trend Analysis: Strong, stable convictions results suggest that teachers early on made up their minds about the nature and value of arts integration practices in schools. Teachers believed from the start (a) that arts integration depends on essential elements of authentic forms of arts learning and teaching processes and (b) that arts-integrated learning represents an ideal strategy for community and cultural connections.

Conclusions and Implications: In the DELTA project, *arts learning occurs in the context of arts integration*. That is, arts-integrated literacy provides a particular context for learning in theater, dance, music, and visual arts; and vice versa, arts learning in each discipline contributes unique experiences, skills, and strategies toward a comprehensive understanding of the multiple layers of literacy processes and strands of literacy skills that, in turn, can be synthesized across disciplines.

One caveat in the data is the assertion that arts integration 'depends on the use of all four art forms.' This statement appears to be more philosophic than grounded in practice. In the DELTA project, each curriculum unit described earlier generally did not involve more than two art forms, and the exemplary DELTA portfolios presented close collaboration between two art forms only in the case of the storytelling projects that involved theater and visual art. Furthermore, the previous interview analysis did not reveal instances of teachers' concern that they did not integrate all four art forms in the arts integration units, nor did any teacher complain

that three art forms were not enough to enhance language literacy instruction in the context of arts integration.

Thus, it appears that even though the effect of arts integration is measured in the DELTA project primarily by focusing on literacy goals through one art form, the teacher survey implies a strong conviction that the more art forms that are taught in the context of arts integration, the better. Analysis of the DELTA portfolios suggests the quality of teacher-artist collaboration throughout the stages of curriculum planning, teaching, and reflection on student work documentation best defined the exemplary aspects of the DELTA program. Therefore, future research would need to assure optimal conditions for each individual art form's integration with language arts as an essential pre-condition for measuring the added effect of multiple art forms on learning in other academic subject and/or arts-learning areas.

DELTA Classroom Teacher Survey Question A-2: Why is it likely that arts integration enhances language literacy instruction?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "Arts integration can enhance literacy instruction because…"

Trends of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**		It focuses on literacy goals shared by an art form and one other content field.	
			Its design allows for a literacy lesson designed around discipline connections.	
			Its design allows for assessment of both arts learning and literacy skill development.	
	Medium		Curriculum is co-planned by a community artist and classroom teacher.	
			Curriculum is co-planned by an in-school arts specialist and classroom teacher.	
	Low			

VI. Figure 2

Pre-Post Trend Analysis: The table above shows that teachers are adamant in their conviction that arts integration can work most effectively if interdisciplinary connections that deepen young students' understanding of literacy are identified in the curriculum writing. Primarily the curriculum needs to focus on goals shared between arts and academic disciplines, and assessment of learning should occur within each discipline. Co-planning processes are essential but of secondary importance to the quality and focus of the curriculum itself.

Conclusions and Implications: Clearly the expectations for the value of an arts-integrated curriculum were raised during the initial professional development period of the project and remained stable throughout the project. In the DELTA project portfolios, teachers and teaching artists featured their curriculum design work prominently and made explicit the shared goals of arts learning and literacy, as well as the evaluative dimensions of the project with each arts discipline. Thus, an impressive continuity of thought was established early on with the CAPE professional development experiences, supported in teacher-artist collaborative curriculum

design and implementation, and articulated further through the DELTA digital portfolio process and presentations.

Topic B: Conditions Favoring Successful Arts Integration Approaches to Language Literacy

DELTA Classroom Teacher Survey Question B-1: Under what general conditions will/does arts integration serve as a strategy for enhancing language literacy instruction?

> *Prompt: Please rate your level of agreement with the following statements that complete the phrase "Arts integration is most likely to enhance language literacy instruction when there is…"*

Trends of DELTA Classroom Teacher Attitudes Over Time

<table>
<tr><th></th><th></th><th>Increasingly Negative</th><th>Stable</th><th>Increasingly Positive</th></tr>
<tr><td rowspan="11">Strength of Conviction</td><td rowspan="11">High</td><td></td><td>Collaborative professional development</td><td></td></tr>
<tr><td></td><td>Team-teaching</td><td></td></tr>
<tr><td></td><td>Collaborative planning</td><td></td></tr>
<tr><td></td><td>Mutual respect between arts and other disciplines</td><td></td></tr>
<tr><td></td><td>Good facilities and equipment</td><td></td></tr>
<tr><td></td><td>Administrative support for arts integration</td><td></td></tr>
<tr><td></td><td>Professional development for classroom teachers</td><td></td></tr>
<tr><td></td><td>Professional development for artists</td><td></td></tr>
<tr><td></td><td>Content, flexibility with scope and sequence</td><td></td></tr>
<tr><td></td><td>Instructional materials</td><td></td></tr>
<tr><td></td><td>Teaching schedules</td><td></td></tr>
<tr><td rowspan="5">Medium</td><td></td><td>Pre-service education</td><td></td></tr>
<tr><td></td><td>In-service professional development</td><td></td></tr>
<tr><td></td><td>Block Scheduling / Extended Periods</td><td></td></tr>
<tr><td></td><td>Community support for arts integration</td><td></td></tr>
<tr><td></td><td>Computers/ Software</td><td></td></tr>
<tr><td>Low</td><td></td><td></td><td></td></tr>
</table>

VI. Figure 3

Pre-Post Trend Analysis: At both the starting and culminating periods of the project development, teachers identify eleven strong, stable factors that ensure that arts integration will benefit literacy instruction. The particular priority of collaboration with artists with respect to planning, teaching, and in-service professional development emerges clearly in these data.

Conclusions and Implications: As expressed in this chart, teachers are very enthusiastic about the direct effect of arts integration under optimal and focused conditions of support. It is significant that the teachers focus on administrative support as a major criterion for optimal conditions for the success of the DELTA project. The strong conviction can now be aligned with evidence from the previous interview analyses that the lack of administrative support for this project did significantly limit the success of the DELTA project.

Topic C: Building Teacher Capacity Through Arts Integration Professional Development

DELTA Classroom Teacher Survey Question C-1: What is the normal profile of teacher professional development background in arts integration? How has it changed during the DELTA project?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "The average teacher received professional development in arts integration by having…"

Trends of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**			Taken an arts-related professional development workshop with the last five years.
	Medium		Taken a professional development or in-service related to visual arts.	Taken a professional development or in-service related to drama.
			Taken a professional development or in-service related to dance.	Taken a professional development or in-service related to music.
	Low	Worked with a community artist in their classroom for the past three years or more.	Taken at least one arts-related class for college credit since undergraduate studies.	
		Worked with a community artist more than once in the last five years.		

(Red highlight indicates categorical increase in teacher ratings; blue highlight indicates categorical decrease.)

VI. Figure 4

Pre-Post Trend Analysis: The pattern of change in the teacher ratings over time reflects the growing presence of arts and arts-integrated professional development services provided by the Chicago Public Schools in conjunction with Cape. This data display suggests that arts integration is now much more likely to take place in the context of professional development services within the school district than in university classes or through informal collaboration with community artists.

Conclusions and Implications: Previous interview, portfolio analysis, and survey results suggest that teachers value greatly the professional development practices provided by an arts organization like CAPE that prepares artists to collaborate with teachers as co-curriculum planners and co-teachers, and to share responsibility with them for the documentation, assessment, and interpretation of student work.

DELTA Classroom Teacher Survey Question C-2: How do teachers rate themselves in terms of comfort and skill integrating arts into their classroom activities?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "Teachers feel competent…"

Trends of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of	**High**		Integrating visual art into their classroom	
			Integrating drama into their classroom	
	Medium		Integrating music into their classroom	
			Integrating dance into their classroom	
	Low			

VI. Figure 5

Pre-Post Trend Analysis: As a result of participating in the DELTA project, teachers did not change their view of their own capacities to integrate the arts into their classrooms. They are most comfortable with visual arts and theater; teachers are less comfortable with music and dance.

Conclusions and Implications: The order of comfort follows the pattern of application of art forms to language arts classroom instruction found in most elementary schools today. Typically, illustrated story books and often interpretive drawing and reading ('readers' theater') are featured in public school classrooms and are at the center of children's motivation to read and understand literature. Dance and music are usually more isolated from classroom teacher instruction and evaluation practices. With the demonstration of effective arts integration strategies, the teachers' level of comfort with music and dance may increase.

Topic D: Views of Assessment Needed to Evaluate Student Growth and Achievement in the DELTA Program

DELTA Classroom Teacher Survey Question D-1: Which assessment tools are most useful for assessing learning in arts subjects?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "Teachers found the following assessment tools useful in the arts:"

Trends of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**		Student Final Work	
			Teacher Observation	
	Medium		Process Portfolio	Student Journal
			Student Reflections	Interview Conference
	Low		Multiple-Choice Test	Essay Test
			Student Self-Assessment	

(Red highlight indicates categorical increase in teacher ratings.)

VI. Figure 6

Pre-Post Trend Analysis: The teachers' principal modes of assessment for arts learning were the evaluation of the final work and observation of the working process, but they placed a greater emphasis on documentation and reflective writing as the DELTA project progressed. Multiple-choice testing and superficial forms of student self-assessment were consistently given the lowest priority ratings by the teachers.

Conclusions and Implications: Over time, the teachers believed that student journal writing, interview conferences, and essay writing provided useful methods for understanding the contribution of their students' arts learning to the goals of the arts-integration units focused on literacy and learning in other areas of the curriculum such as math (with music) and social-emotional development.

<u>DELTA Classroom Teacher Survey Question D-2</u>: Which assessment tools are most useful in non-arts subjects?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "Teachers found the following assessment tools useful in non-arts subjects…"

Trends of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**		Teacher Observation	
			Student Final Project Work Event	
	Medium	Student Journals		Process Portfolio
		Multiple-Choice Tests	Student Self-Assessment	Student Reflections
	Low	Essay Tests		Interview/ Conference

(Red highlight indicates categorical increase in teacher ratings; blue highlight indicates categorical decrease.)

VI. Figure 7

Pre-Post Trend Analysis: During the course of the DELTA project, classroom teachers became substantially more interested in process portfolio documentation, student journals, conferences, and interviews as assessment tools for academic subject areas. At the same time, teachers grew less interested in multiple choice tests, essay tests, and student journals as sources of assessment. Focus on teacher observation and final project work assessment remained primary throughout the three years of the project.

Conclusions and Implications: It appears that the demonstration of forms of assessment most appropriate for tracing arts learning and arts-integration connections in the DELTA units has interested teachers to incorporate these assessments in academic work as well. This finding is significant because it is possible that the lack of understanding of evaluation methods appropriate to arts learning has limited the classroom teachers' view of the commonalities that exist between language literacy and the arts learning processes.

<u>DELTA Classroom Teacher Survey Question D-3</u>: Which assessment tools are most useful in arts integration?

Prompt: Please rate the usefulness of the following assessment tools for arts integration:"

Trend of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**	Student final work	Teacher Observation	
	Medium	Student Journal		
		Process Portfolio	Interview Conference	
		Student Reflections		
	Low	Essay Test	Multiple-choice test	
		Student self-assessment		

(Blue highlight indicates categorical decrease in teacher ratings.)

VI. Figure 8

Pre-Post Trend Analysis: This data display indicates that by the end of the DELTA project teachers indicate significantly less conviction for the *usefulness* of most forms of assessment for arts integration units focused on literacy.

Conclusions and Implications: The increasingly negative view of the usefulness of assessment by teachers suggests that high expectations for assessing the impact of the DELTA program may have been dampened by the realities of practice. While teachers were at first convinced of the need for multiple forms of documentation and assessments of student work in the DELTA units, this process was largely carried out with help from the artists and only with a small sample of the class. Thus, the practicality of these tools for class-wide assessment was never demonstrated during the three years of the project. That is, formal assessment of student work was never administered to all students, nor was the process of assessment taken over by the teachers or their arts specialist colleagues at their school.

Decreases in the utility of the arts integration program assessments notwithstanding, the data show that alternative assessment methods for arts integration remain a strong priority for the teachers, especially when compared with essay tests and multiple-choice tests.

Topic E: Indicators of Impact and Success of the DELTA Project

DELTA Classroom Teacher Survey Question E-1: What would be/are indicators of the success of arts-integrated language literacy instruction?

> ***Prompt: Please rate your level of agreement with the following statements that complete the phrase "Successful arts integration is evident when…"***

Trend of DELTA Classroom Teacher Attitudes Over Time

		Increasingly Negative	Stable	Increasingly Positive
sStrength of Conviction	**High**		There's a real relationship between the students, teachers, and artists at a school.	
			The arts are included in reading and writing assignments.	
			The arts are referenced in literacy lessons plans.	
	Medium	Kids mention arts when asked what is important for learning to read in their school.	There is artwork in the halls related to literacy.	
		The arts play a role in teacher in-services focused on literacy.	Arts specialists are included in staff literacy program planning.	
		Teachers and students are increasingly involved in the arts and literacy over several years.	The arts are integrated into teacher-made tests and assessments related to literacy.	
		Staff planning time is devoted to arts integration projects.	Community artists are present in literacy lessons throughout the year.	
	Low			

(Blue highlight indicates categorical decrease in teacher ratings.)

VI. Figure 8

Pre-Post Trend Analysis: Before and after project implementation, teachers were most sure that success is indicated by high quality relationships between the students, teachers, and artists working together in elementary school classrooms and by evidence of explicit tie-ins between arts learning and reading and writing lesson plans and assignments. Arts learning assessments integrated into literacy-related assessment and the presence of artists in planning sessions and lesson implementation relate less strongly to the success of arts integration.
.
There is significantly less conviction that four indicators of success are as important as originally thought. The less significant factors are: the role of the arts in teacher professional development, the longevity of involvement of the teachers in arts learning, and the amount of time spent on arts integration projects.

Conclusions and Implications: Once the professional development was in place and the teachers had substantial experience with the DELTA program in their classrooms, the curriculum design work and the presence of artists in schools and their relationship with students factored most clearly into the success of the project. Therefore, the lessening of programmatic emphasis on in-service professional development and planning time indicated on the data display appears to be a by-product of teachers paying more attention to the most critical elements of program sustainability: deep relationships between the artists and teachers and the consistent presence of the arts, arts learning, and arts integration strategies in lesson plans and assignments.

<u>DELTA Classroom Teacher Survey Question E-2</u>: What are the most important characteristics of someone successfully integrating arts learning into their teaching?

Prompt: "Please rate the most important characteristics of a teacher successfully integrating arts learning into their teaching practices:"

Trend of DELTA Classroom Teacher Attitudes Over Time
(from opinions expressed before program participation to responses expressed in the last year of program participation)

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**	Interest / experience in an art form	Enthusiasm	Ability to team teach
				Willingness to take risks, take new approaches to teaching
				Flexibility
				Interest / experience in interdisciplinary teaching
	Medium	Organization		Content knowledge of the primary discipline
	Low			

(Red highlight indicates categorical increase in teacher ratings; blue highlight indicates categorical decrease.)

VI. Figure 10

Pre-Post Trend Analysis: When considering characteristics of teaching arts integration, teachers maintained that enthusiasm and knowledge of content was essential. With experience, however, teachers found that the ability to team teach, take risks, stay flexible, try new teaching approaches, and know one's discipline in relationship to another become of paramount importance.

Conclusions and Implications: Participants in the DELTA project felt that the characteristics of a teacher who can successfully integrate disciplines required curiosity, flexibility and openness to change. After their experiences with the initial phases of CAPE professional development, the qualities they mentioned most in the end represent the deep experience they had transforming their teaching practices over the three years of the project.

DELTA Classroom Teacher Survey Question E-3: In what ways can/does high quality arts education contribute to whole-school improvement?

Prompt: Please rate your level of agreement with the following statements that complete the phrase "High quality arts education can contribute to whole-school improvement because it…"

Trend of DELTA Classroom Teacher Attitudes Over Time
(from opinions expressed before program participation to responses
expressed in the last year of program participation)

		Increasingly Negative	Stable	Increasingly Positive
Strength of Conviction	**High**			
	Medium	**Can improve overall academic achievement and literacy.**	**Can improve school attendance.** **Can support ongoing school improvement efforts.** **Can be useful in assessing learning in other content fields.** **Can contribute to pro development, recertification.** **Is a priority in teaching goals for the future.**	
	Low	**Can influence youth crime rate.** **Can improve standardized test scores.**		

(Blue highlight indicates categorical decrease in teacher ratings.)
VI. Figure 11

Pre-Post Trend Analysis: The decreasing and relatively low strength of conviction in three factors and the stable, medium level of conviction in five factors clearly show that the teachers see arts education as more likely to benefit general measures of school improvement than specific literacy or academic outcomes in schools. The positive, stable values to the school community have more to do with student engagement and satisfaction (attendance), teacher quality, and alignment with school teaching and learning goals across the disciplines.

Conclusions and Implications: Teachers familiar with DELTA no longer see arts learning or arts integration practices primarily as a one-way, 'cause and effect' strategy for improvement in other areas of the curriculum. Instead these teachers are more apt to see arts and arts integration learning as improvement for teaching and learning in general. That is, arts learning is motivated for its own sake and for student engagement and teacher quality, and not so much as a way to get students to perform better on narrowly focused standardized tests designed only for academic studies as isolated disciplines. Because of the focus of the DELTA curriculum units, however, veteran DELTA teachers did feel that arts-integrated literacy instruction was more likely to benefit general academic achievement and literacy skills development than performance on standardized multiple choice or single answer tests.

Summary and Implications of the Teacher Survey Data Analyses

The importance of the survey data analysis to the report is that (1) it represents a broader spectrum of all teachers in the case study schools and (2) it provides valuable contextual data for understanding the formation and later transformation of teacher perspectives as they went through the DELTA professional development and teaching experience.

As the analyses or survey data progressed, it became evident that as a result of their initial professional development sessions with CAPE, the teachers quickly came to a firm understanding of the nature of arts-integrated instruction and its potential benefits to language literacy, and this understanding was reaffirmed by their ratings at the end of the project. New forms of professional development were acknowledged positively and connected well to process and product descriptions provided in the exemplary DELTA project portfolios, especially in terms of describing factors of success and impact.

Changes in teacher attitudes most clearly register with issues of assessment and impact of the project. The challenges of documentation and assessment were where the expectations met with strong doses of practical reality. Multiple, systematic assessments are valued, but practical realities stimulated teachers to bring academic forms of assessment to the arts, and artist process assessments to the academic subject areas. The successful implementation of DELTA was linked strongly to aspects of teacher-teaching artist collaboration and the mindset of curiosity, risk-taking, and openness to change.

The *limitations* of the survey report reside in the over-generalization of the questions about expectations and adjusted judgments regarding the DELTA program's impact on student learning. Judging from the interview analyses, much more specific lines of inquiry should be asked in future studies. Questions could be formulated to learn more about how teachers view the extent to which each arts learning discipline contributes to specific aspects of language literacy learning objectives. A series of teacher ratings, for example, could be constructed to answer the questions: To what extent does the level of understanding of music reading in or out of the context of music-integrated songwriting tasks predict competency with regard to word segmentation, auditory discrimination, or reading comprehension skills? To what extent does the ability to act out and formulate storyboards forecast levels of word decoding, reading comprehension, or writing skills? To what extent does the developmental level of drawing skills in the context of word play, symbolization of word concepts, or depiction of social concepts in mural drawing mirror vocabulary, word skill, or general comprehension?

The *challenge* of going from presenting model building documentation to gathering large scale evidence of learning within the modeled practices constitutes much of the story of the final sections of this report. Future assessments of professional development should involve evidence of flexible, yet conceptually grounded problem-solving in the course of curriculum design and implementation.

VII. Teacher Observation Data Analysis

Rating the Quality of Literacy Teaching in the DELTA Schools

Ratings of classroom teacher language literacy classroom practices were necessary in order for the CAPE staff and researchers to understand the context for the DELTA model program development. Standards for high quality literacy instruction practices in the course of the DELTA project were determined to a significant degree by expert classroom observation. For high quality literacy learning to take place – integrated or not with arts learning – essential dynamics of teaching and learning need to be present on a continuous basis.   Optimal conditions for learning exist in literacy classrooms where expert observers can detect that elements of standards-based instruction are presented and reinforced, student response to instruction is monitored continually through documentation and observation, and library resources are available. In addition, expert observers need to see that students are engaged in literacy processes and experiences that provide them with methods of self-assessment and self-affirming experiences as effective readers and writers.

In essence, quality ratings for literacy teachers are necessary to ensure that schools are providing adequate literacy learning experiences for all children. In the DELTA project, CPS classroom literacy instructional practices were observed for several purposes:

1) to profile the quality levels of literacy instruction across classrooms in the case study DELTA schools;
2) to familiarize teaching artists with common standards and a vocabulary of teaching practices in the language arts and literacy in order to help them create high-quality DELTA interdisciplinary curriculum design, implementation, and assessment practices designed to reinforce, deepen, and broaden literacy skills through the arts;
3) to identify strengths and weaknesses in the case study classroom as a context for enhancing language literacy learning through arts and arts-integrated learning units.

By making literacy classroom profiles available, CAPE artists were better informed of standards of teaching that could be integrated into their own arts and language literacy projects in all three phases of the DELTA project:

Phase 1: create collaborative curriculum development models
Phase 2: pilot and document collaborative projects
Phase 3: present collaborative DELTA portfolios

In addition, project descriptive comment files were created at the early stages of the project in order for each classroom teacher to familiarize artists and researchers with the current environment of their practices as they developed and piloted the curriculum units.

Literacy Observation Guidelines

Observations of the following factors of high quality literacy instructional practices were recorded through the Reading/Writing Observation Guide. The observation instrument required

a literacy expert to rate classroom literacy instruction according to 23 Indicators of a High Quality Early Elementary Sound Literacy Learning Environment:

1. Teacher provides adequate instruction (2-3 hours per day)
2. Teacher ensures that each of the framework elements are represented in instruction (words, fluency, comprehension, writing)
3. Teacher monitors student engagement (of all students)
4. Teacher organizes instruction (so as to limit delays and interruptions)
5. Classroom management is conducive to teaching and learning
6. Teacher ensures that lessons are appropriately paced
7. Teacher maintains an accessible, well-organized classroom library
8. Classroom is used to display reading strategies (charts, posters, bulletin boards) that remind students of reading and writing strategies that they are to use
9. Learning and progress are celebrated/highlighted in the classroom
10. Student work is observed by the teacher in the classroom
11. Teacher ensures that students are actively engaged in purposeful learning
12. Teacher creates assignments in the context of explicit reading instruction
13. Teacher finds ways to encourage student reading beyond the school day
14. Teacher includes social science, science, math, art, and other content materials within reading and writing lessons
15. Purpose of lesson is explained by the teacher
16. Teacher makes sure that each student has a clear idea of his/her own progress/success in learning
17. Teacher documents observational information about students during teaching
18. Teacher maintains a public record of what is taught (word lists, phonics, elements, strategies)
19. Instruction allows time for individual response
20. There is frequent assessment of what is taught
21. Students work in small groups and participate in shared reading and writing
22. Teacher scaffolds children's learning
23. Teacher demonstrates/models content and skill mastery for students

All observers used the following three-level rating scale and supported these judgments with written comments:

1 - Not evident
2 - Partially evident
3 - Fully evident

Data displays presented below are based on observations by Dr. Shari Frost conducted at the beginning of the final year of the DELTA project. This analysis provided a context for the final revision and implementation of the DELTA projects and documentation processes. Had the observations been repeated at the end of the year, a comparative profile may have indicated changes in the presence of high quality literacy instruction practices due perhaps to the influence of DELTA units. Nonetheless, these ratings provide a clear methodology for assessing the added value of arts integration to early elementary literacy teaching practices.

Rating the Consistency of Language Literacy Instruction

The averaged ratings of individual classroom practices (coded to protect the identity of the teachers and students) reveal that there are significant differences in the consistency of high quality literacy instructional practices across the three DELTA schools.

Individual Classroom Averaged Ratings of the 'Presence of High Quality Literacy Activities/Actions' Grouped by the Three DELTA Case Study Schools (Grades 1 to 3)
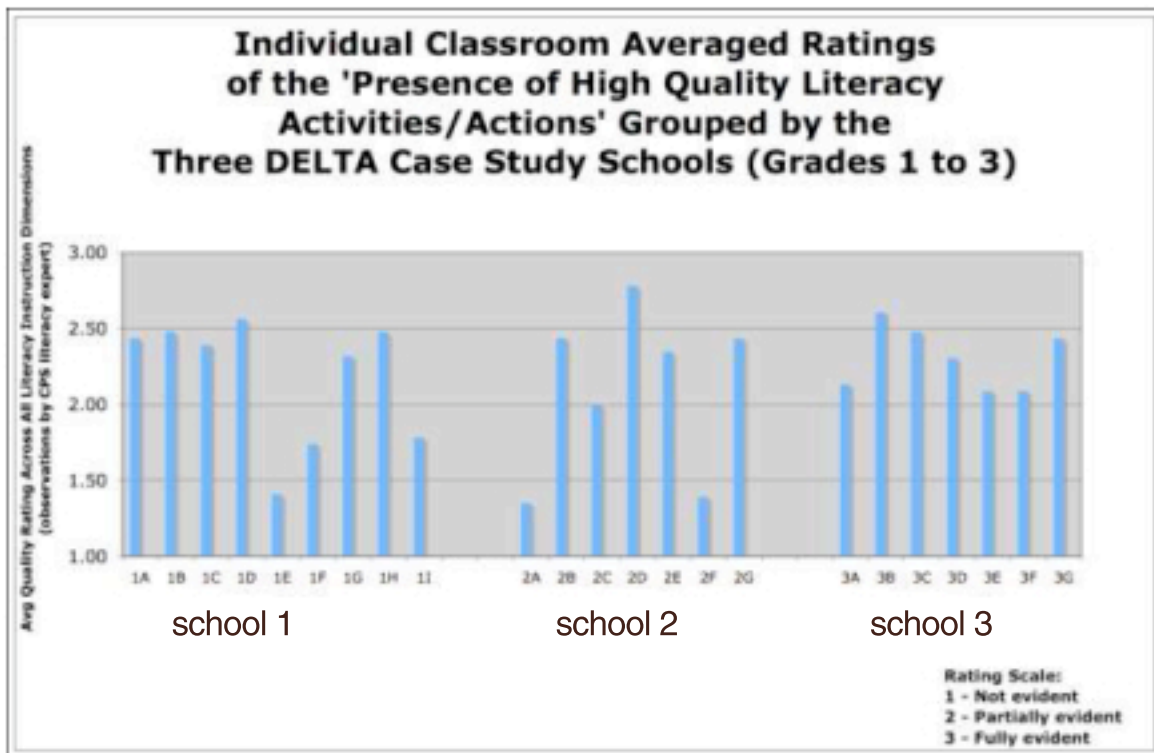
VII. Figure 1

Individual Factors of High Quality Literacy Instruction

More significant in the analysis is the degree of presence of the individual aspects of high quality literacy instruction in the DELTA classrooms. The chart below (Part 1) profiles ten different aspects of high quality instruction, nine of which are, on the average, strongly present in all of the DELTA case study school classrooms.

On the whole, in the three DELTA case study schools, conventional language literacy instruction is well managed and student work is well monitored. Thus, just as classroom teachers benefited from observing the teaching practices of artists in their classrooms, CAPE teaching artists became familiar with literacy management strategies as they observed and collaborated with classroom teachers.

Ratings of 'The Presence of High Quality Classroom Literacy Activities/Actions' Averaged Across All DELTA Schools - (Part 1)
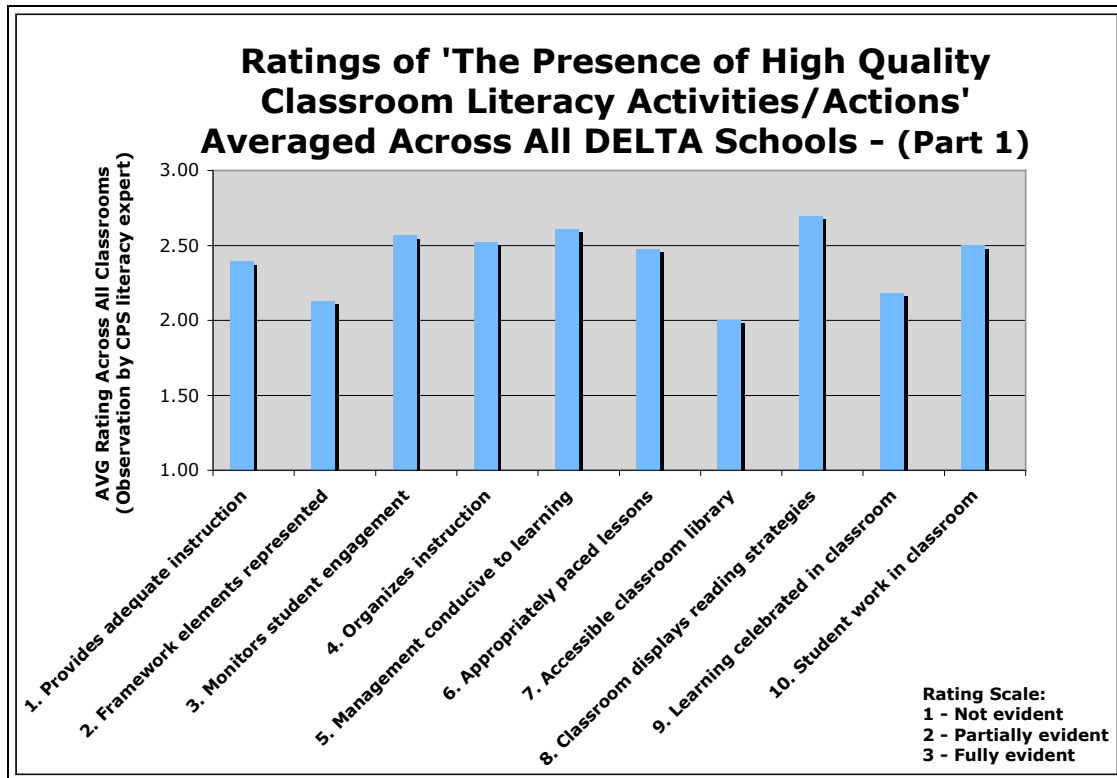
VII. Figure 2

The collateral effect of this indirect form of professional development was that teaching artists began to adapt aspects of literacy instruction into their DELTA units. After observing how classroom teachers ensure that each of the language literacy framework elements are represented in their instruction practices (words, fluency, comprehension, writing), DELTA artists challenged themselves to incorporate these characteristics in their arts integration exercises and projects.

As a result, CAPE artists were, for example, able to draw inspiration for songwriting, storytelling, or bookmaking projects from vocabulary displayed on the teachers' 'word walls' and other 'displayed reading strategies' featured in classroom literacy lessons. These adaptations progressively became understood as parallel processes shared between arts and language literacies in the arts integration units. In other cases, 'Word Wizard Dictionaries' became opportunities for children to include drawings to illustrate the use of featured words in sentences, and 'Word Play' activities resulted in opportunities for children to express visually their understanding of words as symbols depicting states of being, character traits, or actions in a story, or their social and emotional understanding of community and self in a mural. Clearly the CAPE artists were as challenged by the classroom teachers' methods of teaching literacy as the teachers were fascinated by the ideas and media artists used to explore and reinforce literacy learning through their arts activities.

Having access to literacy observation profiles meant that CAPE teaching artists also had opportunities to enhance the more under-represented aspects of literacy instruction standards. As indicated by the chart above (Part 1), the biggest weakness in literacy instruction was accessible

library resources. As indicated in the DELTA portfolios, CAPE artists worked deeply with library materials, not just as reading resources but as media useful in exploring concepts of illustration and in analyzing structural aspects of story writing. In addition, artists used elements of the visual arts in direct reference to examples from children's literature (e.g., the concepts of self-portraiture and color in relation to the book *My Many Colored Days* by Dr. Seuss). Thus, by working directly with bookmaking and illustration, the teaching artists were able to deepen the study of literacy by recycling available library resources.

DELTA as a Literacy Classroom Intervention

Part 2 of the "Presence of High Quality Literacy Activities" data display ratings (chart below) suggests that five indicators of excellence in literacy instruction were below standard in the DELTA schools.

According to these results, student engagement, which includes allowing for individual responses to literacy tasks and keeping good instructional records, receives a high rating. However, documentation and assessment of student work is rated as a very low priority during the conventional instruction periods. In addition, encouragement of developing literacy skills outside of the normal parameters of classroom instruction is virtually non-existent.
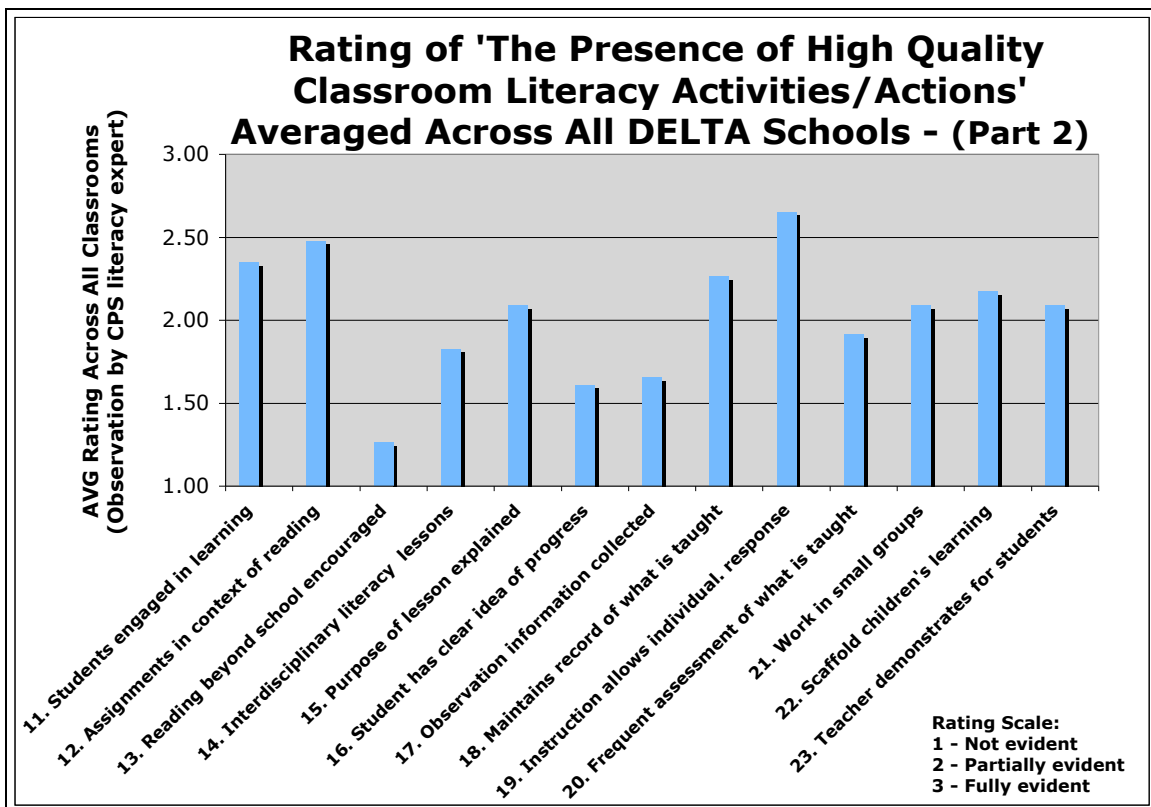
VII. Figure 3

Deficits in literacy instruction were targeted as arts integration intervention strategies as part of the DELTA project. The five deficits are listed in the table below along with strategies for

literacy instruction and learning enhancement based on exemplary practices described in the DELTA case study portfolios earlier in this report.

Literacy Classroom Deficits and Possible Benefits from DELTA Arts Integration Interventions

Low Rated Presence of High Quality Literacy Practices	Possible Enhancements from the DELTA program
(13) Teacher finds ways to encourage student reading beyond the school day	The DELTA units encourage students to find ways to engage literacy processes outside of normal classroom activities (in units that featured mural projects, public performances and exhibits, study of vocabulary used on the playground, etc.) and to explore alternative forms of literacy media outside of print media (such as storytelling on TV, listening to songs for lyrical content, drawings to illustrate word meanings, etc.).
(14) Teacher includes social science, science, math, art, and other content materials within reading and writing lessons	DELTA arts-integrated units by definition include other subject areas in order to explore 'parallel processes' and fundamental concepts shared among disciplines (such as art making and bookmaking, musical syntax in both music and language, the inclusion of social and history context in art projects, science of color matching, use of historical figures in art works, etc.).
(16) Teacher makes sure that each student has a clear idea of his/her own progress/success in learning	DELTA units furthered student awareness of their own progress by making rich documentation of process and products mandatory; by promoting journal writing to help students self-assess their work in reference to learning across disciplines; by using DELTA work folders and portfolio presentations to help students observe systematically their own progress; and by ensuring student ownership of the DELTA arts-enriched literacy projects through multiple occasions for creative choice and imagination.
(17) Teacher documents observational information about students during teaching	With collaboration teaching practices in place, DELTA offers more time for literacy learning to be observed by the classroom teacher, while the arts activities are being led by the teaching artist; and responsibilities for documentation are assumed by both the classroom teacher and teaching artist.
(20) There is frequent assessment of what is taught	With DELTA arts integration units, informal assessment happens continuously and reflectively and is more apt to be captured on videotape and in journals as part of the DELTA portfolio documentation methods.

VII. Figure 4

Summary and Implications of Teacher Observation Data Analysis

The analysis of classroom literacy instruction observations provided a way for artists and teachers together to 'stretch the canvas' and render a much broader and deeper view of literacy instruction and learning, a perspective that includes multiple forms of arts learning in the context of arts integration curricular structures and practices. Looking at the strengths of classroom literacy instruction inspired the teaching artists to reinforce classroom teaching by adapting and elaborating on the organization methods of effective classroom language literacy instruction. Rather than looking at findings of deficits in literacy instruction as impediments to the project, the DELTA teams took the opportunity to create compensatory learning activities that provided increased opportunities for arts-infused literacy learning. This exploration of multiple forms of

literacy ultimately reinforced the presence of high quality standards of classroom literacy instruction – a primary goal of the DELTA program as a literacy learning intervention.

In an effort to rigorously assess student arts learning and its relationship to language literacy learning – happening in the context of well-defined arts integration practice – the final chapter chronicles the development of "Snapshots of Early Arts Learning" (SEAL) student performance tasks and interview protocols. The SEAL tasks were customized to each discipline, yet governed by an assessment rubric that spanned multiple arts learning processes. Results from the latest version of the SEAL assessment system reported next provide outcome findings that inform both DELTA program evaluation objectives and research into the nature of arts learning in the context of arts integration. In this way, the findings can challenge schools to think differently about the power of authentic, comprehensive arts learning coupled with other disciplines as a tool for exploring shared concepts and parallel processes nurtured and evaluated in the presence of arts-rich literacy instruction and assessment practices.

VIII. Assessment of Arts Learning: The Development, Implementation, and Analysis of the Snapshots of Early Arts Learning (SEAL) Assessments

Introduction

This chapter is organized according to five steps of data collection and analysis:

    A. SEAL Arts Learning Performance Assessment Task *Development, Data Collection Methods*, and *Profiling* of Pre-Post Results Within and Across the DELTA Case Study Schools.
        1. Emmet School SEAL performance assessment tasks (music)
        2. Miles Davis Academy SEAL performance assessment tasks (drama, visual art, bookmaking)
        3. Sumner Academy SEAL performance assessment tasks (visual art)
        4. Across-School comparison of SEAL performance assessment tasks

    Step A focuses on the *construct validity* of the SEAL Performance Assessment Tasks and the *investigation of DELTA program effectiveness* based on changes in student arts learning pre-post test results over time in the context of arts-language literacy integration.

    B. SEAL Reflective Thinking Interview Protocol *Development*, *Data Collection, and Profiling* of Pre-Post Results Within and Across DELTA Case Study Schools
        1. Within and across-school comparison of SEAL interview responses

    Step B focuses on the *construct validity* of the SEAL Reflective Thinking Interview Protocols and the *investigation of DELTA program effectiveness* based on the changes reflective understanding of arts processes in pre-post student interview responses over time.

    C. *Comparisons Between* SEAL Performance Assessment Tasks and Interview Results Across the DELTA Case Study Schools
        1. Within and across-school comparison of averaged SEAL performance assessment task and averaged interview response variables
        2. Profile analysis of aggregated SEAL assessment variables

    Step C investigates the relationship between SEAL Performance Assessment Tasks and Reflective Thinking Interview responses for indications of cohesiveness of the two factors of arts learning over time.

D. *Report on the Relationship Between* <u>Student Arts Learning Assessments (SEAL)</u> and standard <u>Language Literacy Assessments (DIBELS, Iowa TAP assessments)</u>

Step D investigates the relationship between SEAL arts learning assessments in the DELTA project and language literacy test results for evidence of causal links, enhancements, or reinforcement of literacy learning shared between these factors in the context of CAPE integrated arts learning units.

E. General Summary of the DELTA Project Statistical Results

Step E explores implication of the statistical results of the DELTA project as a whole. What have we learned from student arts learning assessments in relation to the case study portfolio exemplars presented earlier in this report?

A. SEAL Arts Learning Performance Assessment Task Development, Data Collection Methods, and Profiling of Pre-Post Results Within and Across the DELTA Case Study Schools

One of the major objectives of the Developing Early Literacies Through the Arts (DELTA) project was to develop and employ individual assessment instruments and data collection methods in order to study student growth in arts learning during the course of CAPE language arts integration units. Since the CAPE interventions featured a combination of art forms, it was essential that these assessments draw on arts learning skills common to music, theater, visual arts, and dance. Ideally, the assessment methods would parallel the structure and content of language arts literacy skills currently in place in Chicago public schools.

It was quickly determined that arts learning tests in general were nowhere to be found in the test batteries administered by public schools today. Thus, it became necessary in the DELTA project to develop these assessments, because valid and reliable measures of arts learning were needed (a) to establish evidence beyond teacher observations and testimonials of student learning in the arts as a result of the DELTA program, and (b) to provide statistical data consistent with evidence of links between high quality early arts learning and language literacy skill development.

Building a common framework for DELTA arts performance and reflective thinking assessments

The *first step* in the process of creating a DELTA student assessment system was to articulate a valid overarching conceptual framework for arts learning that could be adapted slightly to accommodate individual arts disciplines.

CAPE artists were invited to participate in the creation of the DELTA assessment framework to ensure the construct validity of all arts learning assessment instruments. Throughout the building and testing of the arts assessment processes, questions about the relevance of the DELTA project to language literacy were kept in mind:

- How will CAPE artists document evidence of significant arts learning as it is directed toward its integration with language literacy classroom practices?
- To what extent will the case study reports provided compelling evidence for student learning through the presentation of examples of student and group learning in the DELTA portfolios?
- To what extent can DELTA assessments provide further systematic evidence of arts learning and understanding based on larger scale individual student work or performance assessments?
- To what extent can DELTA student assessment methods provide evidence of multiple forms of arts learning and understanding through performance, perceptual, and reflective thinking tasks?

Because CAPE artists worked in different art forms, they agreed that the underlying framework of the DELTA instruments would have to be organized according to shared fundamental concepts (e.g., character, story, setting, pacing, word segmentation, action-obstacle-resolution, beginning-middle-end, etc.) and processes (reading, perceiving, brainstorming, experimenting, composing, storytelling, performing, reflective thinking, revising) that occur in parallel across arts disciplines (including language arts).

The construct validity of the DELTA instruments also required that the structure and protocols of the assessment tasks remain faithful to the integrity and individuality of each arts discipline and its manifestation across various media and modes of representation. Accordingly the SEAL tasks were focused on solving open-ended problems through creative processes authentic to each artistic discipline. Thus, the rating of performance tasks and interview responses had to capture growth of higher order thinking skills and the acuity of critical perceptions or judgments in common with each art form.

The practical validity of the assessments was measured also through the participation of artists as action researchers who were responsible for data collection.

Parallels with language literacy assessment

The second step was for artists and researchers to inform the construction of DELTA assessments by understanding the kind of student literacy performance data relevant to early literacy learning that the district provides and its relevance to measures of arts learning in the context of its integration with the language arts. At the time the project began, the CPS schools were using the Illinois Snapshots of Early Literacy (ISEL) standardized test that provided data on basic reading skills and comprehension. These tests were constructed around both basic skills tasks and open-ended reading responses and writing samples that provided a relatively rich view of student literacy skills compared with more narrowly construed tests of word fluency or phonetics that characterized other literacy tests at that time.

Inspired by the ISEL language literacy assessments, Arnold Aprill, Executive Director of CAPE, challenged DELTA artists and researchers to design 'Snapshots of Early Arts Learning' or SEAL assessment tasks as a set of 'parallel measures of arts literacies' aligned with the Illinois Snapshots of Early Literacy (ISEL). The SEAL framework, described below, evolved as the model for student arts learning assessments for the DELTA project.

The SEAL (Snapshots of Early Arts Learning) Assessment Framework

The SEAL Assessment Framework developed out of a consensus-building process that involved CAPE artists, staff, and researchers. Consensus about fundamental understandings of artistic processes across art forms came from long-term discussion among expert dance, music, theater and visual artists informed by past practices in arts learning assessment presented by researchers.

Once consensus on the dimensions of the SEAL framework was reached, this underlying conceptual framework guided the creation of performance assessment tasks in each art form [Appendix Figures F-I] and scoring rubrics adapted to each art form [see rubric excerpt, Appendix Figure J].

As seen below, the SEAL Framework is structured as a four-part assessment process that includes opportunities to observe student art making performance tasks [A.] and to elicit student responses to interview questions about art and artistic process [B1.], responses to another artist's work [B2.], and reflection on their own work [B3.].

The Snapshots of Early Arts Learning (SEAL)
Student Performance & Reflective Thinking Assessment Framework
(developed by CAPE artists and staff with guidance from the NEC Research Center)

A. Performance Assessment: Documentation of Activities *Within* Each Art Form
Students will engage in a 45 min directed art activity. This activity, determined by the teaching artist (see following examples in four art forms), will provide opportunities to observe student ability to:

- Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning), Middle Stage (creation), and End (product and outcome)
- Represent, communicate, and express own ideas through media.
- Demonstrate an understanding of materials, both the physical aspects and metaphorical potentials.
- Participate in cross-fertilization of ideas influenced by others' work (other students and other artists) and influence other students' work processes.
- Make choices from an accumulated body of artistic knowledge and effectively apply those choices.

  The activity will be photographed and videotaped for analysis.

B1. Interview Response (Part One): Reflections on Art and Artistic Process *Across* All Art Forms
Students will answer a series of interview questions directed towards their understanding of the art form they are engaging in with DELTA. Students will have a sample of their own work or a photograph of themselves engaged in performance available.

- What is art? (i.e. dance, music, theater, drawing, bookmaking, etc.)
- How did you make/create/perform this piece? (related to sample)
- What happens when you make a mistake?
- How do you know when you're finished/ready to perform?
- How do you tell a story through (i.e. dance, music, theater, visual art etc.)?
- What tools does a (dancer, musician, actor etc.) use?
- What can you express or show through (dance, music, theater, visual art etc.)?
- Where do your ideas come from when making art?

B2. Interview Response (Part Two): Reflections on Artwork of Others (*Within* Specific Art Form)
During the same interview students will respond either in writing or orally to a non-student sample artwork selected by a teaching artist. The work should reflect genre or materials that students will have engaged in through DELTA based on the questions:

- What is the artist trying to express?
- What questions do you have about this work?
- What questions would you ask the artist?

B3. Interview Response (Part Three): Reflection and Self Assessment of Students' Own Art Work (*Within* Specific Art Form)
During the final part of the interview, students will reflect either orally or in writing on their own artwork and that of their fellow students based on the question:

- How did you construct, prepare to perform, etc. this piece?

> **VIII. Figure 1: The four-part SEAL framework that resulted from collaboration among artist, staff members and researchers guided the development and assessment of arts learning tasks in the DELTA Project [This figure is also listed as Appendix B].**

The SEAL assessment framework guided the development of student data collection throughout the duration of the DELTA project. CAPE artists designed and revised tasks according to their discipline guided by practical considerations and by the initial results of the tasks as they were piloted in the first stages of the project.

A common scoring rubric framework for SEAL assessments of all arts learning disciplines

Rubrics for analyzing the data in each arts discipline were developed by the NEC Research Center with feedback from CAPE staff and artists [see Appendix Figure J].

The performance assessment observations and interview responses were structured around artistic process rather than content standards as indicated by the task description. Thus, the scoring rubrics were designed to provide 'indicators of arts learning' specific to each discipline (as indicated by the SEAL task descriptions above), while the scorers were challenged to rate the 'level of sophistication' regardless of the discipline (according to measures of consistency, complexity, expertise, and degree of support from others as indicated in Appendix Figure J). After 90% reliability was established among the data scorers, the 'level of sophistication' rating of student behavior and interview responses in each of the arts disciplines (observation of artists process or product, or analysis of interview responses) provided a common benchmark for arts learning across disciplines.

SEAL problem-solving tasks thus became critical occasions for documenting and eventually rating individual level of understanding as it changed over time. Theoretically the impact of the DELTA project could then be in part demonstrated by the level of sophistication by which students solved problems related to skills required by DELTA units within specific art forms and applied to the context of arts-literacy integration lesson plans.

A Chronicle of the Three-Year Evolution of the SEAL Assessment System during the DELTA project

The SEAL assessment system unfolded as a model building, piloting and implementation process in three phases:

Phase 1 (Year 1): SEAL preliminary tasks and protocols were developed for each component of the SEAL assessments in each of the art forms.

> *Process Results*:
> - CAPE artists, staff, and researchers achieved consensus on a preliminary general framework for the SEAL assessment system and general criteria for assessment criteria.

Phase 2 (Year 2): Versions of the SEAL assessment procedures and protocols for collecting sample interview and performance task observation data were piloted; scoring rubrics were developed and tested for reliability of rating sample for individual students' responses to interview protocols and their observed participation in performance tasks.

> *Process Results*:
> - CAPE artists, staff, and researchers achieved consensus on the application of general SEAL frameworks to each art form and general criteria for scoring rubrics; it was determined that interview video clips could be scored reliably according to the SEAL scoring rubric [see Appendix K] and the data produced a range of response appropriate for future statistical analysis.
> - However, it was discovered that videotape samples of performance assessment tasks as they were administered could not be scored reliably at the individual student level due to lack of uniformity of task conditions, inequity of student participation in groups, and documentation quality on video clips; the researchers warned the CAPE staff that, without revision, these tasks would have to be dropped from the SEAL test analysis.

Year 3: Refined or revised SEAL interview protocols were administered to every HALO student in the fall and spring of the school year and scored by NEC research team. Revised or newly created (in the case of music) SEAL performance assessment tasks were administered to many HALO students in music, theater, and visual art. Video clips of theater and music performance tasks were analyzed by the NEC research team. In the meantime, rich process description and exemplary student work samples resulting from DELTA projects in theater, visual arts, and music were featured in the DELTA portfolio presentations. These portfolios also included anecdotal findings and testimony from teachers and students that, along with interview data, was subject to qualitative analysis as previously disclosed in the case study school and final interview reports in this paper.

> *Process Results*:
> - Comprehensive data collection and scoring of SEAL observation of performance tasks and a robust sample of HALO pre-post interview responses was videotaped.
> - It was determined that all of the SEAL interview responses could be reliably scored and could be included in the report. Of the SEAL performance tasks only music and theater SEAL performance tasks could be scored reliably and therefore would be included in the data analysis for this report. Systematic documentation

of SEAL assessments for dance and visual art were not made available for analysis.

- SEAL interview results and the music SEAL observations became the primary measure of statistical data analyses to be presented in the final report. However, concerns remained from the previous year's work that the quality and shape of the music, theater, storytelling, and visual art performance task data raised questions about its validity for comparative analysis with the interview data or with language literacy data, thus limiting the data analysis for the final report.

- It was determined that in the future the SEAL performance tasks would need to be administered with considerably more attention given to equitable individual participation in all art forms and to rigorous scoring of individual student work according to assessment criteria closely aligned with indicators of excellence that artists used to describe the exemplary student work in DELTA portfolios.

Limitations of the SEAL assessment system in the context of the DELTA project

Unfortunately, three problems surfaced after the development of the SEAL 'parallel' performance assessments.

First, the parallel relationship between the structure of the ISEL literacy tests and the SEAL arts learning assessments was no longer in place. That is, the state early literacy (ISEL) tests were discontinued without warning as of the first year of the DELTA project. Regrettably, these tests were replaced by a variety of basic reading subskill tests that were less aligned with the objectives of the SEAL tests. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) test that replaced the ISEL tests in the DELTA schools does not focus on reading comprehension or on writing skills.

In essence, the narrowing focus of the language literacy tests significantly impacted the DELTA study because it was assumed that the new literacy tests (DIBELS and other standardized tests) would less likely capture the effect of arts learning on the understanding of higher ordering thinking skills featured in the discarded ISEL tests. Thus, the primary hypothesis of DELTA's positive impact on standardized tests of literacy learning could no longer be tested in the case study schools.

As determined from the interview data analysis reported earlier, classroom teachers came to understand that the arts learning skills they saw developing in their students' individual and collaborative work grew out of process-rich, creative problem-solving skills and unanticipated capacity for reflective thinking and critical judgment. When the more limited language literacy tests became CPS policy, classroom teachers yearned for more expansive assessment of literacy to match the broader array of arts enhanced learning they witnessed in the DELTA units.

A *second* problem came to light when it was discovered that the some SEAL performance tests did not elicit nor capture the range or sophistication of student work when compared to the level of work featured in the DELTA portfolios. Unfortunately the portfolio process that resulted in the formulation of exemplary DELTA teaching practices matured considerably after the SEAL performance assessment tasks were designed and piloted. Thus, the validity of the SEAL

performance tasks was considerably limited by the lack of sophistication of the tasks themselves. Had there been more time to develop SEAL tasks informed by the portfolio work of the third year—as demonstrated in the case study sections of the report, for example—the performance assessments ratings would have represented a truer measure of the 'level of sophistication' of the students' literate understanding of artistic processes. In future studies, further revision of the SEAL assessments will be needed to capture systemic individual assessment of high quality early arts in the context of language literacy learning exemplified by group and individual student exemplars in the DELTA portfolios.

The *third* problem had mostly to do with misconceptions about repeated measures task design and data collection methods. Although the pre-post tests had to be revised in the third year of the project, in some cases (music, theater, and visual art) the design or the conditions of the pre-post testing changed <u>within</u> the academic year. In the case of music, different notation symbols were used in the post-test. In theater, the task focus shifted from improvisation exercises to storytelling. In visual art, the task and methodology changed completely from a narrowly focused shape-making task to a very open-ended drawing assignment designed to have students reflect on learning over the course of the year. The dance tasks simply had students make shapes of letters with their bodies within a few seconds. While all of the pre-post discrepancies reflected an evolution of the tasks toward the greater sophistication of the exemplary portfolio work, the pre-post assessment design was lost, thus limiting the measure of the impact of the DELTA program development as indicated by changes in student work in repeated measures assessment methods.

Had the DELTA project been extended to a fourth year, the SEAL frameworks eventually would have stabilized; as a result, the artists could have been more confident that data from the SEAL tests could be used to investigate pre-post statistical evaluation of young children's ability to solve SEAL tasks aligned with the portfolio work products now expected from the DELTA curriculum projects. Thus, the SEAL performance tasks could provide reliable quantitative assessment measures of at least four types of student work processes exhibited in the DELTA portfolios: (1) the ability to set text to music rhythms and melodies, (2) the ability to tell stories through acting, (3) the ability to create storyboards to illustrate stages of problem-action-resolution in storytelling, and (4) the ability to create representations of character, setting, and word symbols in murals to express understanding of community building and skill development in visual art.

Recognizing the limitations of the implementation of the SEAL assessment system, the results of the SEAL performance tasks within each discipline and the interview protocol common to all disciplines are discussed in the sections below.

Domain specific SEAL test description and student growth profile analysis

In the following sections [A1-A4] the SEAL performance tasks will be described for each case study school, and whenever possible the DELTA data will be analyzed and results presented in terms of pre-post comparisons of arts learning from two additional perspectives:

- Student grade level cohort analysis (grades 1-3) will determine the extent to which age levels and experience with the program predicts outcome analysis in the final year of the project.
- The three student cohorts [HAL] formed at the beginning of the project were based on teacher literacy evaluation levels (HAL ratings of High, Average and Low classroom literacy skill levels) determined in the first year of the project. These ratings provide a control for the DELTA project by measuring the extent to which the SEAL assessment task arts integration outcomes diverge from, or are aligned with the initial profile of each student's language literacy skills.

A-1. Emmet School Seal Performance Assessment Tasks (Music)

At the Emmet School, SEAL assessment tasks were piloted in the context of CAPE visual arts, dance, and music arts integration units. Consistent implementation and valid documentation of music pre-post SEAL tests data were achieved only during the third year of the project and are reported here and in the previous case study reports. Visual arts and dance data collection methods did not advance to the point that quantitative results from the SEAL assessments could be reported here.

The assumption explored in the music unit at Emmet was that music notation skills taught in the context of its integration with language skill development would advance both language and music skills and to some degree the understanding of the connections between artist process and language literacy skill development. The investigation of this assumption relied on the students learning music literacy skills through an emphasis on combining words with music in songwriting tasks. A counter or null hypothesis predicts that because the music and linguistic symbol systems are largely independent of one another, connections between the two are unlikely to obtain in only a ten-week unit of instruction.

The music SEAL performance assessment tasks were designed to collect evidence of the level of music reading and writing skill development of each individual student over the ten-week CAPE unit.

Overview of the Music SEAL Pre Test

The research design called for holding the SEAL performance assessment tasks constant throughout the academic years in order to track student growth over time. The music tests changed enough from time one to time two to warrant a comparative description of the pre-test and post-test versions of the SEAL performance task during the third year of the project.

Step One:
Each student is given a graphic music notation (sometimes called 'piano roll notation' because of the way music scrolls were punched playback on player pianos that were popular in the early 1900s) organized by the demarcation of four measures of proportional durations as displayed below. Understanding this graph requires the ability to calculate proportional durations on the horizontal (x) axis while simultaneously processing pitch contour (scale steps) patterns on the

vertical (y) axis. The result of this graphic decoding system should be sonic patterns that resemble musical melodies, but do not require specialized knowledge of standard music notation.
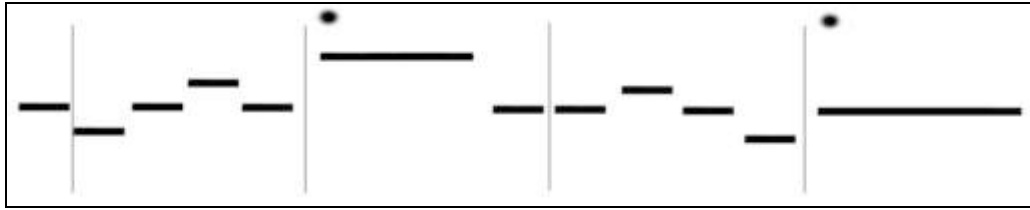
VIII. Figure 2: The music SEAL tests at first employed graphic notations of music to students unfamiliar with standard notation systems.

Step Two:
The student is then asked to pick two words that rhymed from the list shown below and place them according to where a "note" has a dot above it in the phrase structure (the second and fourth full measures of time).

Head	Wait	Bee	Plate	Dough	Sea
Crowd	Sky	Read	Heat	No	Yes
Said	Need	Feet	Bed	Lie	Hit
Quit	Guess	Grow	Eight	Loud	High

VIII. Figure 3: Rhyming chart used as part of the music SEAL songwriting task.

Step Three:
From this structural foundation students would then fill in the rest of the phrase with their own choice of words, as long as syllabic components fit with the patterns of duration (rhythmic) represented in the graphic notation display.

Step Four:
Following this procedure each student was expected to perform his or her example by vocalizing words in the sentence they created, approximating the pitch contours in relation to the given proportional duration patterns.

A possible example of a high-scoring performance of this test would translate to conventional notation as follows:

VIII. Figure 4: SEAL task eventually challenged students to combine words and music effectively.

A student composition and performance similar to the one written above (in standard notation) would be highly rated because it meets at least four criteria for sophisticated music-language literacy skills:

- the ability to identify two words that rhyme out of a seemingly random list of words;
- the ability to construct a coherent sentence which makes sense as prosody (scansion and accent patterns) that matches the duration patterns and
- places these rhyming words in the proper structural areas; and
- the ability to perform the totality of the composition with vocalization conforming to a preset pitch contour and rhythmic subdivision.

Overview of the Music SEAL Post-Test

The music SEAL post-test content is similar to the pre-test content, except that it is now presented in standard notation as opposed to the graphic notation that was needed because there was no assumption or prior music knowledge.

Step One:
A four-bar phrase similar to the pre-test duration and pitch contour patterns is laid out in standard notation as shown below.

VIII. Figure 5: In the post-test, the SEAL tasks were expressed in standard notation.

Step Two:
As in the pre-test, the student picks two words from the following list (Fig.8) and places them at measures 2 and 4, respectively, marked by asterisks.

Dough	Sea	Bee	Plate	Crowd	Sky
No	Yes	Read	Heat	Said	Need
Lie	Hit	Feet	Bed	Quit	Guess
Loud	High	Grow	Eight	Head	Wait

VIII. Figure 6: In the post-test, the rhyme word charts were similar to those used in the pre-test.

Step Three:
The student is then asked to create two sentences or phrases that conform to the rhythmic structure of the notation.

Step Four:
Each student is challenged further to perform a vocalization of this sentence that follows the pitch relationships notated in the composition.

A possible example of a high-scoring performance of this test would be:

VIII. Figure 7: In the post-test, the results were targeted to combining words and music, but this time the students were required to use standard notation.

A student composition and performance similar to the one written above would be highly rated because, as with the pre-test, it meets at least four criteria for sophisticated music-language literacy skills:

- the ability to identify two words that rhyme out of a seemingly random list of words;
- the ability to construct a coherent sentence which makes sense as prosody (scansion and accent patterns) that matches the duration patterns and
- places these rhyming words in the proper structural areas; and
- the ability to perform the totality of the composition with vocalization conforming to a preset pitch contour and rhythmic subdivision.

Summary of Music SEAL Test

Achieving evidence of significant learning of an entirely new symbol system with young elementary students who have likely had no previous music instruction is an ambitious task. After only ten lessons, Adam Busch, the teaching artist, shows confidence in the learning curve of these students by reframing the pre-test problem-solving tasks using conventional music notation instead of the graphic notation.

Lessons preceding the post-test varied in focus, but all immersed the students in conventional music symbols and their application to words and sentences. Some concentrated on the rhythmic analysis of the syllabication of words in a sentence and the subsequent mapping of syllable patterns using notation (Figure 7 below):

VIII. Figure 8: Process documentation of student response to the music SEAL test revealed remarkably more facility with music notation in the ten-week unit.

Others focused on using instruments such as the xylophone and the tambourine to focus on the relationship of pitch and rhythm in music reading below:

Pre and post-test SEAL performance assessment results in music

Scoring rubrics were derived from the music SEAL task framework [Appendix Figure F], and scoring reliability was established by blind scoring comparisons by graduate research assistants at the NEC Research Center. Here and in general, the statistical analyses were conducted by the

Director of the NEC Research Center, verified by graduate student assistants, and are included as needed in various sections of this report.

> **Finding 1: Differences between pre and post results on the music SEAL performance tasks for all Emmet students provide modest, statistically significant evidence of student growth in music notation skills over the ten-week unit.**

The horizontal red line in the scatterplot chart below indicates the average improvement in the SEAL task performance. Each dot in the chart represents positive (above zero) or negative (below zero) change in the task performance rating. Although the trend is positive, there are many examples of students who did not improve or performed worse on the post-test, a finding that weakens considerably the impression of positive impact of the unit.

In addition the correlation between students who did well in the first test and those who performed well in the second is low and consequently the explained variance in the post-test for individual students is low as well. Finally, the change in the skill level rating is incremental (within a rating category) rather than categorical (crossing categorical skill boundaries), and thus the degree of growth is relatively insignificant in terms of consistency, complexity and/or quality of response.

However, irregularities in conditions for administering the SEAL tasks – the change from graphic notation to conventional notation – very likely masked the growth in pre-post assessment results. It is possible that, had the task design been kept constant in the level of its symbol systems, positive changes in student growth levels may have been categorically stronger.

Taking into account the deviations in the testing procedures that likely skewed the test results negatively, nonetheless the pre-post scores do indicate that authentic, literacy-based music learning occurred as a result of the DELTA music unit at the Emmet School.

**Evidence of Pre-Post Improvement in Music Reading and Writing Skill Development
from SEAL Performance Assessment Tasks**
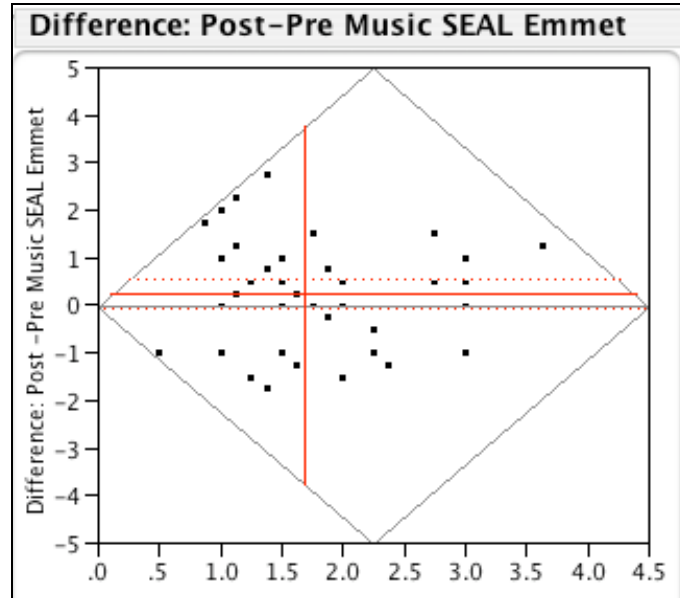
**VIII. Figure 9: SEAL music performance pre-post assessment tasks reveal slight positive
difference in scoring level (1.81- 1.57= .24), relatively high standard error (.15), and
relatively low correlation within student performance (r=.20). Nonetheless, we can be
(94%) confident that the findings are statistically significant (p<.06) n=52.**

The determination of music reading and writing skill development, however modest, is crucial to
the premise of the DELTA project because arts-integrated learning depends on substantial
evidence of arts learning within and across various art forms. In the case of music, the impact of
an alternative mode of symbolic processing and meaning-making on language literacy skills is
best accomplished by learning music notation enhanced further through its integration with
language reading and writing skills, as demonstrated by the songwriting tasks featured in the
SEAL performance assessments.

> **Finding 2: The Emmet SEAL Task provides promising evidence of how
> music may bridge gaps among different language literacy learners.**

When looking at differences between student cohorts within the overall sample, we see a
statistical trend that suggests that, as interview analyses predicted, the average and low literacy
rated students benefited more from the DELTA unit than did the high language literacy rated
students. Unfortunately, the sample size is too small to determine reliable levels of statistical
significance

A Comparison of Theater Improvement Ratings According to
Student Literacy Achievement Cohort and Grade Level

HAL Language Literacy Rating	Music SEAL Pre Test Mean Score	Music SEAL Post Test Mean Score	Music SEAL Pre-Post Mean Difference Score
High	1.67	1.67	.00
Average	1.60	1.95	.35
Low	1.42	1.75	.33

VIII. Figure 10: Trend analysis indicates that the average and low literacy students may have closed the music literacy gap, as indicated by music SEAL pre-post difference scores. The performance tasks ratings are based on a common five-point rating scale of 'level of sophistication' to all art forms in the DELTA project.

Details of Limitations of SEAL Music Test Implementation

The music SEAL tests were administered by the teaching artist for the first time in the third year of the DELTA Project and without having the time for rigorous training in test implementation methods. Thus, it is not surprising that there are a number of facets of the execution of this test that potentially introduced irregularities in the data collection. Based on the Emmet case study, the following list provides critical facets of arts performance-based data collection that CAPE artist-assessment specialists will need to consider for in future studies in order to produce more reliable data collection methods:

Control the testing environment: One has to be careful of what extraneous factors are introduced into a testing situation due to the testing environment. First of all, when students in music SEAL tests were prompted to perform in front of their peers, the quality of execution may have been influenced by peer response. Testing with distractions from others or peer pressure can create a less than optimal climate of performance that can lead to false negatives, that is, falsely assuming poor performance that would not be true in the context of individual testing. Secondly, administering the same test conditions for every child becomes difficult when a classroom full of peers observes test performances of others prior to their own performances. While one can argue, for example, that it is merely by chance that several students in a row go up and construct a sentence using the words "head" and "bed" (all the sentences being almost identical in content), one could just as easily suspect that the students are imitating each other. Such questions about data contamination cannot be ignored when coding responses and will affect the power and interpretability of data in the final analysis.

Some strategies for limiting peer contamination effects are relatively simple. If performance tasks must be done publicly, randomize the words lists and performance task order. Have the students sit at their desk with their particular version of the notation and then, one at a time, go up the front of the class and perform. Better yet, find a private space for testing, because the ideal condition for determining individual performance levels is to ensure that the student work is achieved without distraction (creating false negatives) or aided by other student performance (creating false positives).

Consistent prompting. A high or inconsistent amount of prompting that takes place between the tester and the student will make ratings unreliable or invalid. Prompts may be present as subtle suggestions such as "Can you sing it now?" (after the student had already 'performed

it' albeit, without vocalization) or as overt assistance, e.g., helping the student pick out rhyming words or supplying them with the rhythmic or pitch content of the example. In either case, prompts must be designed into the task protocol and administered consistently with every student. One particular strategy is to supply fully prompted warm-up tasks and to score the follow-up performances without any further assistance.

Control for discrepancies between pre- and post-test conditions and procedures. Discrepancies in test conditions limit the validity and reliability of pre-post test performance analysis because the measurement of change requires keeping the conditions of the test as constant as possible. The decision to change the format of the post-test to standard music notation, for example, presents a different kind of comparison with the pre-test performance data than if the test were repeated with graphic notation. That is, rather than measuring improvement with graphic music reading, the post-test becomes the sole measure of reading with conventional notation. Evidence for contamination of measure was detected by presence of lowered reading scores with the introduction of standard music notation for more than a few students.

Baseline the performance task response. The results of the pre-test showed that a very small percentage of students were able to perform at the most basic level of rhythmic and pitch differentiation in performance. Non-response to a task is not the same as establishing a baseline performance level to the tasks. Either the tasks are too difficult or they needed clear sequential warm-up and demonstration tasks before individual assessments were judged. The presence of so-called 'floor effects' in the data can only skew measures of improvement in the post-test data, especially if the post-test is not administered in exactly the same way. In this case, keeping with the proportional notation for the post-test would have shown that as an effect of students learning to read conventional notation, they were able to make more connections with pitch contours and rhythmic duration patterns in the graphic notation, especially in connection with phonetic awareness and basic formal awareness in both music construction and sentence construction.

Limit discrepancies in task items. Changing both the notation system and the level of complexity of the melodic design[3] pre-test made the post-test substantially more challenging for the students the second time around. Since the baseline performance was already extremely low, this design flaw lowers the reliability of the pre-post test comparison or suggests we may see negative effects in the performance compared with the pre-test results.

A-2. Miles Davis Academy SEAL Performance Assessment Tasks (Drama, Visual Art, Bookmaking)

At Miles Davis, multiple forms of arts learning were measured by separate SEAL performance assessments: drama (theater improv/story telling), visual arts (visual story telling), and storyboarding (storytelling that combines words and images). The development and relatively

---

[3] The intervallic content of the example presents some problems, particularly the leap of a 6th in the final part of the phrase. Not only does this defy typical cadential practice, but the interval of a sixth is itself difficult to sing, especially when in a descending motion.

systematic implementation of these SEAL assessments complements the level of integration of arts learning and language literacy instruction goals that was apparent in the Miles Davis case study portfolio.

The SEAL drama/improvisation curriculum summary

The SEAL theater performance assessment at Miles Davis drew on three separate components for the drama instruction.

> 1) Imagery, abstraction, and improvisation: using the body as instrument, creating abstraction/representation of imagery through stage sculpture and tableaus, and setting improvisations for characters in three dimensional improvised environments
>
> The purpose of this component was to prepare the student for the art-making processes such as focus, body awareness/control, decision-making, and abstraction needed for the theater/literacy exercises to follow.
>
> 2) Three reading assignments: students were broken into small groups where they were given particular assignments to be completed during various reading activities. The assignments were as follows.
>
>> *Word wizards*
>> Identify unfamiliar words that are then defined and sculpted into abstractions (tableau/stage pictures)
>>
>> *Imagery hunters*
>> Identify the interesting phrases that can be used to make interesting tableaus.
>>
>> *Event masters*
>> Collect the major events that occur within the text. The events are then recreated utilizing character and setting improvisations and/or tableaus.
>
> The text work exercises were used to help students visualize their comprehension of text (e.g. characters, setting, and action). These skills aid in comprehension and provide the foundation for the summary work.
>
> 3) Five events story summary exercises. These exercises use abstraction and setting improvisation to create representations of five key events from the chapter the students studied. These events are then represented through a variety of means, from tableaus to storyboard work.
>
> Upon completion of the third component, the students are then ready to progress to book-making, where their summary and abstraction skills can be utilized in crafting a summary of the text with a book-making artist.

Kevin Douglas believes the SEAL assessments would need to draw on this curriculum to measure the extent that students could show growth in their kinesthetic understanding of story elements through improvisation. Rather than building all three components into his SEAL

performance tasks, he focused his pre and post-tests on entirely different activities: improvisation and storyboarding based on elements of storytelling.

The SEAL drama/improvisation performance assessment task

The SEAL drama activities, as described below, required students to make choices about movement and character within the constraints of an imaginary setting. These tasks tested students' ability to consider aspects of drama and storytelling simultaneously in the context of 'basic setting' group improvisation tasks directed by the theater artist. While making choices about what their character might do, students also had to keep track of imaginary environment and objects, as well as attune themselves to the emerging storyline stemming from improvised interactions with other students.

The SEAL test is a 'basic setting' improvisation exercise.

Participants collectively define a three dimensional environment by individually navigating a space (when prompted) and additionally manipulating a variety of objects normally found in the selected space. Participants are encouraged to make choices a) that will help them to define the environment and b) that incorporate choices of other participants who have navigated/defined/manipulated the environment during prior activities.

The space selected for this test was a kitchen to be utilized in the preparation of a grilled cheese sandwich.

VIII. Figure 11: Short description of the SEAL improv performance assessment task.

When interviewed about the SEAL test, teaching artist Kevin Douglas described how the improvisation task was coupled also with a storytelling task that was repeated at the beginning and end of the year. He observed that student response to both tasks demonstrated changes in many areas of the SEAL rubrics: exactness of spatial memory, knowledge of story structure, level of detail of storytelling, and what he calls 'really telling' a story.

> **Interviewer:** What was it like to administer the pre-post SEAL task with your classes? What kinds of things changed in your students on the SEAL posttest?
>
> **Kevin Douglas**: I had them create an imaginary kitchen, just to see where they were at visually and imaginatively. I would give them some direction, like 'Ok, go to the refrigerator,' and they would open up an imaginary refrigerator and take out a piece of bread. Next I'd have another child go up and ask them to go to the same refrigerator, and it was interesting to see which kids went to the same refrigerator and which kids created their own refrigerator somewhere else. They all had the same environment, but some children would place things in different areas.

In his final interview Kevin Douglas describes the existence of a SEAL test that either was never documented or submitted for analysis. The task, as described below, would have been a very promising SEAL performance assessment not only because of its ease of administration, but because of its centrality to storytelling skill development.

Kevin Douglas: In addition, they would come in and we just had them tell a story. The stories at first were not detailed, and there were a lot of pauses, but then by the end of the year, they had a structure; there was a beginning, middle and an ending to the story. They were able to be more specific, and they were able to really fill out the story and really tell it. There was more specificity, detail; it's almost as if they opened up completely to the task the second time around.

Pre-test SEAL performance assessment results in theater improvisation

Students were scored based on two prime factors: 1) how students enacted their character and 2) how they responded to the ongoing prompts that were given throughout the task. Students were given a high score when they stayed in character throughout the task and responded to all prompts. Students were given additional consideration when they added their own dimensions to the performance that didn't require any initial prompting.

As a whole, the task demonstrated the nature of dramatic understanding and its relevance to underlying understanding of story structures, characters, and narrative through acting. In some cases it was easy to see that certain individual students were adept at the tasks and others appeared not be involved. Thus, the transformation in storytelling skills and focus on detail were possible to corroborate in a group setting, but there were problems in data collection that prevented researchers from rating dramatic understanding on an individual student basis until the third year of the project.

The challenges of individual improvisation assessment within groups

Four obstacles to individual assessment were descried to all artists doing performance assessments in-group settings:

- *The individual contribution to group work are often difficult to determine in the analysis of video clips.* The video viewpoint level had to be very high so that scorers could reliably see and hear, let alone judge, each child's contribution equally well in the midst of highly interactive moments of improvisation. If one child is not heard clearly, it affects the analysis of the work of the others. Although these exercises undoubtedly demonstrate group understanding of dramatic principles of the task, the researchers had great deal of difficulty rating the level each individual contribution to the exercise.

- *The challenges in ensemble performance may vary too much from one group to another.* Although the improvisations were configured similarly from the viewpoint of the teaching artist, the problems facing students within these tasks varied considerably according to the prompts given by the director and from student-to-student interactions. The characters' assignments, for example, ranged from becoming animals (e.g., a giraffe or lion) to enacting professional roles in conventional social contexts (e.g., a pilot or a vocalist waiting for a bus). The differences of the characters notwithstanding, the director prompts varied in quantity (some students receiving few, while others received many) and complexity (e.g., some students had to locate objects, others had to use objects to solve problems). While the nature of improvisation is based on response to

unpredictability, the director wishing to assess students fairly will have to stick to comparable conditions in order to use assessments fairly in public school. To the extent that the conditions of the task varied for each child, the scoring became less reliable and subject to 'false negatives'; that is, the scorers had to give low ratings for students who had limited opportunities and prompts, compared to the other students.

- *Discrepancies in task conditions and requirements make pre-post comparisons of group work increasingly problematic.* Acknowledging that the group improvisations were marvelously rich and revealing as a whole, the challenges of teasing out individual ratings of arts learning skills development were compounded by inconsistencies across pre-post renditions of the improvisation tasks. Determining reliable levels of arts learning in varied conditions of group improvisation was difficult under the best of circumstances, and measures of individual growth over time was virtually impossible.

- *Differences in individual participation in group activities lowers the salience and validity of the SEAL assessments.* Administering group improvisation for the purpose of individual assessment can be invalidated by student non-participation or mimicry in the course of the task. Ignoring prompts or imitation of behavior lowers the quality of the improvisation to the extent that those who were willing and able to participate in the task were stymied. Additional impediments to performance sometimes took the form of interference from peer audiences or the interruptions of class dismissal before the performance concluded.

Statistical results of the improvisation SEAL task

By the third year of the project, however, it was possible to establish acceptable levels of reliable judgment with the theater pre-test ratings. Thus, a study of the relationship between SEAL drama skill and SEAL interview ratings could be investigated with respect to statistical significance.
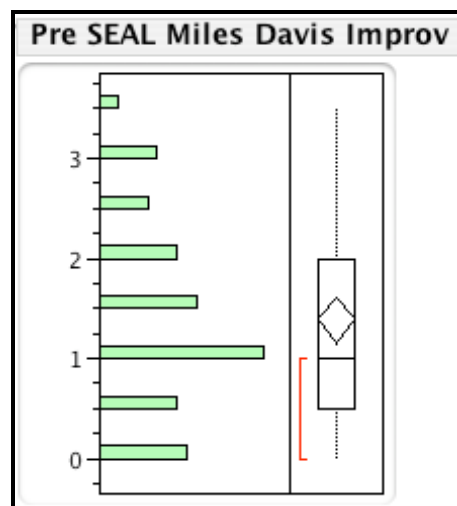
VIII. Figure 12: After several iterations, the improvisation SEAL test succeeded in establishing a reliable scoring of students more or less normally distributed in quality of participation in the improvisation setting tasks. Each data set was subjected to a test of normal distribution so that datasets could be compared in future analyses across SEAL tasks results in various arts disciplines.

As seen in the chart above, the distribution of scores now captures a range of student abilities in improvisation setting.

> **Finding 3: Theater SEAL performance outcomes suggest that improvisation exercises provide a measure of language literacy skill development independent of literacy learning cohort designation or grade level.**

In the next chart, we see that students rated high or average for literacy achievement are roughly equally successful at the improvisation classes, suggesting that theater improvisation exercises provide an alternative language arts strategy for the assessment of literacy concepts such as character, plot, and setting.

Student Theater Improvisation Performance Outcomes
Distributed by Grade Level and Literacy Level Cohorts

HAL Language Literacy Rating	Theater SEAL Pre-Test Mean Score		Grade Level	Theater SEAL Pre-Test Mean Score
High	1.34		Grade 3	1.28
Average	1.43		Grade 2	1.54
Low	1.19		Grade 1	1.28

VIII. Figure 13: Comparison of teacher language literacy rating (HAL) and grade level effect on the SEAL improvisation performance assessment task. Ratings reflect level of consistency, complexity and specificity of improvised story settings, objects, characters, and actions.

The conclusiveness of this data analysis, however, is weakened by the presence of 'false negatives' in the data scoring process due to a generally low level of group interaction. One way of disproving the false negative hypothesis was to see if scores on a repeated post- test would reveal growth in the context of more sophisticated group dynamics as the unit proceeded. Unfortunately, a repeated measures post-test was not administered, so no determination of growth with respect to the pre-test data was possible.

Had there been more time and resources to continue the DELTA project, the reliability of the improvisation assessment could have been strengthened further by conducting strictly repeatable tasks with small groups, and individual improvisation more controlled by the artist that could provide strict protocols for pre-post implementation and include standard interventions required to solve problems of student non-participation.

The Miles Davis Academy visual art and book-making SEAL assessments

The Miles Davis visual arts task is described at length in the interview section of this report as a way to assess storytelling skills to create 'picture-stories.' It appears from interviews and examples in the DELTA portfolio that Mary Tepper's students were able to produce examples of illustration directly related to the DELTA bookmaking project and to be assessed according to SEAL criteria for book illustration [see Appendix H]. Thus, the SEAL test became an occasion for generating individual drawings that coincided with the beginning of the DELTA 'bookmaking' project, and since most of the finished products shown in the DELTA portfolios

were the result of group storytelling and drawing leading up to collaborative books, it served as a way to see how drawing skills had progressed on the individual level.

The pre-test had three simple directives:

> Description of SEAL Visual Art Activity from Mary Tepper, teaching artist
>
> 1) Students are given a sheet of paper, pencil and crayons.
> 2) They are instructed to fold their paper into either 8ths or 4ths.
> 3) They will then be given time to create a 'picture story' of their choice.

VIII. Figure 14: The Visual Arts Picture-Story SEAL Pre-Test Description

From this blank paper start, students are challenged to create drawings as a first step in the bookmaking process.

> **Mary Tepper:** At first the students do not use the full page; they usually draw an object or a letter kind of floating on the page. Next, I give them the opportunity to create a picture story, and they usually ask me, "What's a picture story? and I tell them, "I'm going to let you decide what a picture story is and there's no right or wrong way to make your picture story." For some kids, it's a little too open-ended for them, although some kids will completely create whatever they want with no further directions. This last year we used fairy tales or fables as examples of storytelling to get them started.

The following assessment dimensions provide criteria for judging the working process and picture-story products resulting from this process:

> SEAL Assessment Dimension Excerpt
>
> Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning), Middle stage (creation), and End (product and outcome)
>
> 1. Shows ability to translate ideas from the imagination to a defined space (the paper)
> 2. Does not hesitate when creating
> 3. Uses unfamiliar media (ebony pencil) to aid in the creation of the narrative
> 4. The order the media is used when creating (uses the ebony pencil to sketch, then colors with crayon, or crayon to color and pencil for details)
> 5. Clearly creates a visual narrative with one main idea
> 6. Clearly creates an original main character(s) and a setting(s)
> 7. Uses creative abilities to interpret, organize and represent a story's sequence with a beginning, a middle and an end in an original picture form.

VIII. Figure 15: Scoring dimensions from the Picture-Story SEAL task rubric

Mary Tepper offered her own clear and unambiguous evaluation of the pre-post picture-stories as evidence for categorical shifts in levels of drawing and storytelling skill over time. Mary Tepper continues:

> … And then you pass out this piece of paper for the post-test, and they completely create the character within a setting or a location. There's more detail in the background, and they actually develop the story further or it's a different fable that they create. I think that definitely reflects progress. I didn't really

understand the pre and post-test design at first but after doing it for three years, it's amazing to see the progress based on the baseline understanding they come in with and then how much knowledge they gained through the process of the ten weeks.

When challenged to specify further what is demonstrated in the comparisons, she suggests that the issues of foreground and background, arrangements of objects on the page, and developing storytelling skills strike at the heart of their progress:

> Well, I think the SEAL pre and post-tests definitely show development of visual understanding of creating a composition with foreground and background and the arrangement of the objects on the page. And I think that change of visual understanding is reflected in the progress with the first graders. In the pre-test things are just kind of floating on the page, and then eventually the drawings become grounded: there's a foreground-background relationship, there's a little bit more detail in the drawing and the writing as well. The SEAL post-test shows evidence of developing the literacy skills. We all know that literacy development is an outcome of working with the teacher throughout the year developing their language literacy skills, but other areas of artistic growth were reflected in their pre and post SEAL tests. And I think this growth is very obvious in all grade levels.

According to Mary Tepper, the comparison of the two examples of pre-post SEAL drawing tasks below requires seeing development in visual arts in ways that parallel language arts learning. The elements of character and setting are present in the pretest drawing: the houses, the vehicles, the people. The relationships between the elements have grown more sophisticated in the post-test: the actions of people are now in the foreground, more details are in the representations of vehicles and structures, and we are drawn into the visual narrative. It is not the sign of a more controlled pen or practiced motor skills, but instead the melding of narrative structure, character, setting and depictions of foregrounded actions and supporting details – concepts shared between visual art and language arts – that are documented and potentially rated in the visual art SEAL test.

| SEAL Pre Test Sample | SEAL Post Test Sample |
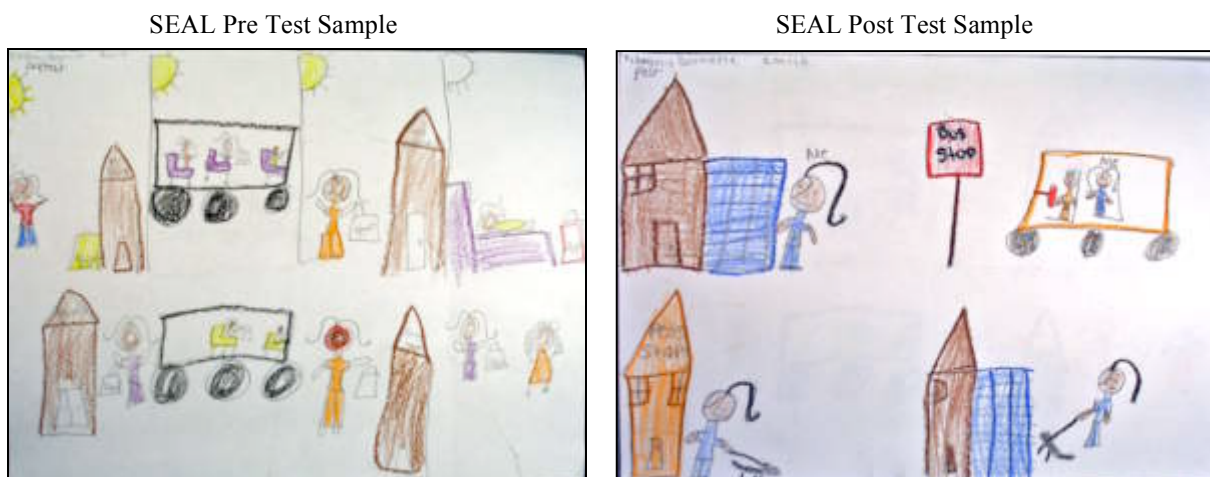
VIII. Figures 16-17: Pre-post examples of student work from the Picture-Story performance assessment task.

Combining the qualities of art skills with language arts (as in the example below), the kinds of highly rated SEAL picture-stories become evidence of demonstrating rich and multi-modal understanding of the purposes of literacy that are embedded in distinctive ways in all art forms.
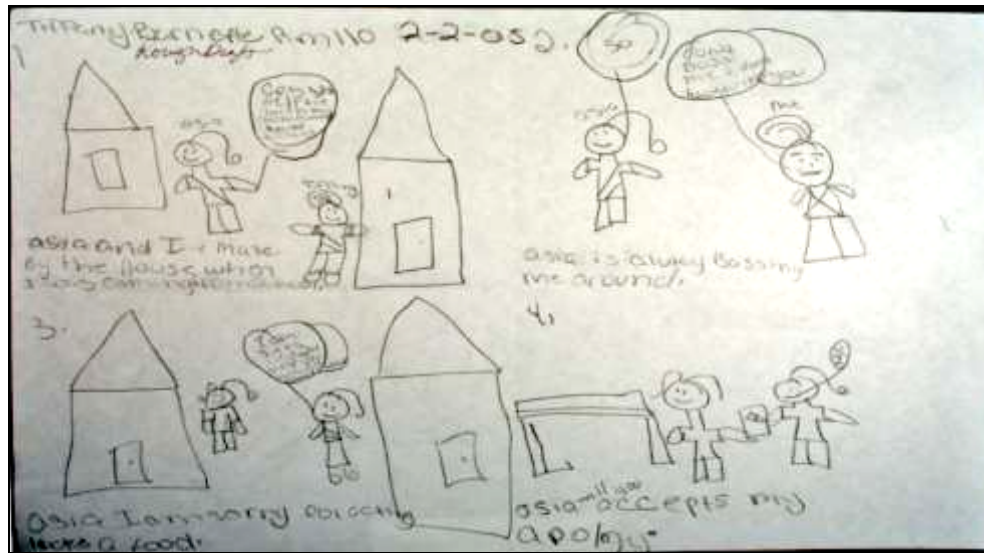
VIII. Figure 18: Example of a student storyboard from the book-making SEAL performance task.

The 'rough draft' storyboard above that portrays a sequential interplay of social emotional factors in friendship:

Scene 1: the main character asks her friend for help with her homework
Scene 2: the helper is accused of being bossy
Scene 3: the helper apologizes
Scene 4: will the main character accept her apology?

The work captures the emergence of multiple, integrated literacy skills. Taking a single discipline approach to assessment, the work is not altogether impressive. There are problems with grammar; the artwork is not polished. Yet, when looking across disciplines, the expressive power of this storyboard is heartfelt and clear: human relationships are fragile, yet we all have the power to reconcile our differences. With the SEAL integrated assessment system in place, educators and parents of this child can look forward to the next draft of this storyboard knowing that the integration of arts and language literacies are both progressing over time for the purpose of conveying topics that are entirely relevant to the learner's and the teacher's viewpoints of literacy skill development

The good news about this model of visual arts SEAL assessment is that the sample data collected is powerful and appears to be amendable to assessments related to visual art, literacy, and the ability to meld these two disciplines as rich storytelling. Another promising design feature in this task is its adherence to a key requirement of longitudinal testing: repeated tasks as the measure of change over time.   The Visual art/Story writing SEAL task in particular can be repeated and scored at any grade level. Its validity and relevance is assured because story writing and illustration is a timeless component of both the language and visual arts curriculum. What the SEAL test does is honor its importance as a way to chart growth and development of

arts and language literacy learning during the course of the ten-week visual arts DELTA project. To the extent that the pre and post-tests are identical in structure, the SEAL results can provide precise measures of change in the task performance.

Keeping the modeled visual arts SEAL assessment process constant in a DELTA unit could provide a valid and reliable developmental landscape of arts-integrated learning that can be charted in bookmaking-story writing from grades one through three. Thus, when student task responses change from free floating objects to approximate controlled use of space, and then to increasingly sophisticated perspectives of human relationships in storytelling, these graduated levels of arts-integrated literacy will provide much more than an index of how children have learned to work within the conventional practices of book-making. It will show that, when book-making guided by artists in collaboration with teachers is used as medium for creative storytelling and imagery, a deeper and more inclusive understanding of literacy will result, as indicated by the graduated levels of the SEAL test for arts learning in the context of arts-integrated literacy objectives. SEAL assessment administered for every child will then demonstrate the predictive power on standardized tests of literacy development. And finally, control group studies can be used to indicate differences in the understanding of literacy concepts, skills, and processes when arts-integrated units are included in the language arts curriculum.

Statistical results from the visual arts and storyboard SEAL performance assessment tasks

While the task design and student examples grounded the storyboard task and the scoring rubrics proved to be reliable, no statistically significant difference was obtained between the overall pre and post results, suggesting that much of the instructional effect of the picture story unit occurred early on in the project.

Two other SEAL performance tasks assessments were possible at the end of the unit: 1) the theater artists asked student to tell a story and create a storyboard to represent the significant events in the story and 2) Mary Tepper's final book-making projects described earlier in the case study section of this report.

In several classrooms the *theater storytelling-storyboard assessments* were administered in incomparable ways, forcing the researchers to reject those test results. However, enough data was collected to provide a contrast to the visual art picture-story results.

> **Finding 4: Visual arts and booking making projects appear to function as complementary measures of early literacy through the arts: illustrated bookmaking is closely aligned with language literacy cohort levels whereas visual arts stories provide a measure of understanding language literacy independent of grade or literacy cohort level.**

In the theater story tasks, ratings were strongly related to initial language literacy (HAL) ratings, and not to grade level. Thus, visual arts literacy integration appears to help younger and literacy challenged students as an alternative to purely linguistic forms of literacy. Not unexpectedly, the theater storytelling tasks are highly related to literacy skill level at every grade level.

Overall, the *book-making artifacts* elicited the highest scores compared to all other SEAL tasks. The books conveyed the highest quality of artistic detail, narrative skills, character, setting, and problem-resolution factors in storytelling. Combining assessable features of visual art and storytelling, the results of the bookmaking SEAL assessment were linked strongly to both the teacher designated language literacy (HAL) levels and to grade level sequence as well.

Assessment Ratings in the Book-Making Task Are Aligned with Initial Literacy Skill Development Classification and with Grade Level

HAL Language Literacy Rating	Book Making SEAL Post-Test Mean Score		Grade Level	Book-Making SEAL Post-Test Mean Score
High	2.34		Grade 3	2.49
Average	2.02		Grade 2	2.49
Low	1.97		Grade 1	2.30

VIII. Figure 19: Comparison of teacher language literacy rating (HAL) and grade level effect on the SEAL book-making performance assessment task.

The most reliably scored and language arts connected bookmaking project artifacts – in the context of theater improvisation, storytelling picture-stories and storyboarding – became the most comprehensive and predictive factor related to language literacy development in the DELTA project.

A-3. Sumner Academy SEAL Performance Assessment Tasks (Visual Art)

Similar to assessment tasks in theater at the Miles Davis Academy, two different visual arts SEAL performance assessment tasks were developed at the Sumner Academy, thus negating the chance to evaluate growth in student work over time.

The contrasts between these two assessments illustrate significant differences in the purpose and practical constraints of visual arts learning assessment.

The first task (pre-test), "peas, carrots, and shapes," provided an assessment of visual thinking and problem-solving. Not directly related to language literacy objectives of the classroom, this task was intended to give a baseline indication of creative problem-solving required to work with the visual arts aspects of the DELTA unit. It required students to make choices using small vegetables and toothpicks to create shapes on desktops and was to be assessed for understanding of visual arts learning processes [see Appendix I].

Unfortunately, this task did not result in reliable data in terms of rating levels of arts learning process engagement or work products for reasons somewhat similar to those offered in the Emmet (music) and the Miles Davis (theater). Although stationary and roving videotapes were employed to capture degrees of student interaction and quality of work, problems surfaced with both aspects of the task. The stationary camera revealed unreliable information concerning student engagement and no record of the student work. The roving camera revealed considerable detail about student work process and products necessary for rating student visual arts learning. However, the roving camera by definition provides intermittent information regarding process.

Nonetheless, statistical results suggest that the task did detect a slightly heightened awareness to creative process and visual problem solving for the highest language literacy (HAL) and grade level learners.

> **Finding 5: When visual arts performance tasks are focused on student reflection on literacy learning the ratings are more likely to be aligned with literacy cohort ratings independent of grade level performance.**

The 'post-test' visual arts SEAL task was an open-ended, visually grounded reflective thinking task. Given a choice of media, students were challenged to create images that captured their DELTA learning experiences throughout the unit. Results from this test were scored with high reliability ratings and suggest a much closer tracking to language literacy (HAL) ratings than did the pre-test task. As with the other schools, there is a second grade effect with respect to this task.

Assessment Ratings in the Visual Arts "Learning Reflection" Task Are Aligned with Initial Literacy Skill Development Classification and not with Grade Level Performance

HAL Language Literacy Rating	Visual Art SEAL Post-Test Mean Score		Grade Level	Visual Art SEAL Post-Test Mean Score
High	1.78		Grade 3	1.69
Average	1.64		Grade 2	1.78
Low	1.51		Grade 1	1.66

VIII. Figure 20: Comparison of teacher language literacy rating (HAL) and grade level effect on the SEAL visual art reflection assessment task at Sumner.

While the visual art SEAL performance tasks give some idea of arts learning, the dimensions of the tasks are only weakly related to the content of the DELTA unit (mural drawing, community and social-emotional development), let alone to aspects of language literacy shared between visual art and language arts.

While practical limitations of classroom documentation may have precluded reliable or valid assessment of arts learning processes in the SEAL tasks, nonetheless there is anecdotal evidence that these tasks may have had impact on students' visual thinking and its application to other academic work:

> **Juan Carlos Perez**: This year after school I talked with a 4th grader who had just gotten out of science class. She showed me a sort of pyramid made of out candy she made. She made this whole three-dimensional form out of small elements, much like she did with the carrots and the peas task. I looked at her and asked "How did you put these together?" and she said "I put them together using triangles." I asked her why she wanted to share her work with me, and she answered "We did this when you took us to the room for the [SEAL] test. I remembered we did these things with the toothpicks and peas and carrots." And I said, "So do you think that that made you perhaps more familiar with this project that your science teacher gave you?" and she replied "Definitely."

However, the problem of having to rely on extrapolated findings from anecdotes is well demonstrated by not having a repeated measures SEAL performance task in place. Large scale, standardized authentic arts learning assessments are needed to test assumptions about the connection between visual arts learning and learning in other subject matters, be it a matter of instructional reinforcement, more familiarity with shared concepts or representations shared between disciplines, or as a general pattern of enhanced learning through the arts.

Continued revision of this work would have focused on creating new visual arts SEAL tasks that revealed a much wider range of artistic material and modes of expression than the "peas, carrots and toothpick tasks." Many of Juan Carlos Perez's lessons in the DELTA portfolio provide the making of tasks that could be used as SEAL assessments. The self-portrait, community scene drawings, or even the word play drawings featured in the DELTA portfolio previously, for example, could be reconfigured as pre-post SEAL assessment tasks that could not only stand as evidence of arts learning over time, but could also be used to study the quality of arts learning in relation to other skills across the curriculum.

As with the other case study schools, the concept of repeated measures testing was elusive; thus, we cannot precisely evaluate the impact of the DELTA units in terms of pre-post gains. However, the model building process has yielded exciting new forms of arts learning assessments that, in the context of exemplary work portfolios, can become tools for arts learning processes in future projects in particular art forms.

A-4. Cross-School Comparison of SEAL Performance Assessment Tasks

This section explores the impact of the DELTA program from the perspective of averaged SEAL Task factors. Despite differences in art forms, curricular units, and SEAL assessment tasks, the similar structure of the scoring rubrics suggests that the level of artistic process understanding and skill can be compared across art forms, school environments, and grade levels.

Pre-post comparisons across schools

> **Finding 6: Averaged Pre-Post SEAL performance task results combined across music visual art and theater indicate that statistically significant gains in arts learning occurred during the cumulative process of two ten-week DELTA units.**

Despite disparities in the design and content of the SEAL performance assessment tasks, the averaging of all pre and post-test scores across all three case study school provides evidence of modest (mean difference = .11) yet statistically significant (p<.05) improvement in arts learning over the course of the ten-week units during the final year of the DELTA project.

> **Finding 7: The Miles Davis Academy DELTA units demonstrated that the effect of arts learning appears to increase most significantly (a) when the arts integration activities are closely related to fundamental concepts and processes shared between acting, telling, illustration and bookmaking; (b) when teaching artists collaborate with each other as well as with the classroom teachers; and (c) when the teaching artists design and collect high quality documentation of student work and assessment tasks.**

In comparison to the other case study schools, however, the Miles Davis Academy DELTA program demonstrated the strongest evidence for DELTA program effectiveness in terms of arts learning improvement within the ten-week units. As illustrated in the chart below, the Miles Davis Academy results indicate consistent levels of increased sophistication in responses, more robust levels of pre-post improvement (mean difference scores), and high levels of assurance that the statistics are not due to chance. Furthermore, significant improvement is registered at all levels of teacher literacy designation (HAL), thus demonstrating the breadth of the DELTA program impact on students' arts-literacy learning represented by the Miles Davis amalgam of SEAL performance tasks assessments.

Miles Davis Averaged SEAL Performance Assessments
(theater improvisation, storytelling, picture stories, storyboard, bookmaking)

	Averaged SEAL Performance Task Pre- Score	Averaged SEAL Performance Task Post- Score	Averaged SEAL Mean Score Differential	Level of Probability Due to Chance
Overall Rating	1.61	1.82	.21	P<.01
HAL Language Literacy Rating				
High	1.74	2.05	.31	P<.04
Average	1,41	1,79	.38	P<.06
Low	1.45	1.73	.28	P<.03
Grade Level				
Grade 3	1.69	1.81	.13	P<.16
Grade 2	1.63	1.84	.21	P<.05
Grade 1	1.44	1.71	.28	P:.04

VIII. Figure 20: Profile of effects of averaging all SEAL performance assessment test results.

The pre-eminent status of the Miles Davis Academy is an important window on the potential of arts-literacy integrated learning in schools. By devising multiple entry points into the arts-language literacy learning and by constructing multiple assessments of learning, the impact of the DELTA program is much more likely both to occur and to be revealed in the data analysis.

> **Finding 8: In contrast to other art forms, the music DELTA unit appears to benefit most those student classified as average or low literacy learners.**

In the literacy cohort (HAL) profile analysis (see chart below), the results in all disciplines show that the SEAL assessments are generally aligned with teacher-designated levels of language literacy achievement: the high literacy cohorts score higher on arts learning skill assessments,

and vice versa the low literacy cohorts do not do as well on arts learning tasks. The exception to this trend is seen in the music literacy assessment results (highlighted in yellow).

HAL Cohort SEAL Performance Assessment Profiles by Arts Learning Discipline
(theater improvisation, storytelling, picture stories, storyboard, bookmaking)

Final Year SEAL Arts Learning Performance Assessment Task Rating (1-5 Scaled Levels of Sophistication of Response)	High Teacher Designated *High* Literacy Achieving Student	Average Teacher Designated *Average* Literacy Achieving Student	Low Teacher Designated *Low* Literacy Achieving Student
Overall SEAL Rating	1.86	1.79	1.64
Music Reading and Writing (Emmet)	1.71	1.95	1.80
Theater/Storytelling (Miles Davis)	1.74	1.59	1.35
Visual Art/Picture Stories (Miles Davis)	2.04	1.97	1.94
Visual Art/Bookmaking (Miles Davis)	2.34	2.02	1.97
Visual Art/Reflection on Learning (Sumner)	1.78	1.64	1.51

VIII. Figure 21: Profile of within-discipline SEAL performance assessment test results according to HAL language literacy achievement cohorts.

In the case of all other art forms, SEAL assessment results are aligned with the initial literacy skill designation (HAL) of the students. Predictably, those students doing well in language literacy at the start of the project are more likely to do well in arts learning literacy. While visual arts and drama reinforce language literacy skill development for language literacy cohorts, they do little to close the literacy or arts learning gap among high, average and low language learners. Music SEAL tasks instead appears to benefit the lower language learners more than the high language learners thus reinforcing the importance of including music as an essential alternative form of symbolic literacy in the context of the DELTA project.

Furthermore, the music DELTA unit may be a key factor in developing rigorous standards for arts-integrated learning as intervention strategies for low achieving students. As discussed in the case study analyses earlier in this report, the premise of arts-integrated teaching learning stems from challenging students to investigate shared fundamental concepts and parallel processes across arts learning disciplines. The results above indicate that the strength of the bookmaking and theater arts lies in its alignment with linguistic symbol systems. Bookmaking is a prime example of how literacy skills are reinforced by combining storytelling, words, and visual illustration of the narrative. In the case of music, the students are learning a different symbol system that, if it were coupled with bookmaking activities for example, would cover a broader array of arts literacies.

Considering the possibility of integrating drama, visual arts, and music together – a combination of art forms that never occurred in the DELTA project – it is possible to imagine a more inclusive model for arts-integrated literacy interventions that might close the literacy gap across all three cohorts of language literacy learners..

B. The Development of SEAL Reflective Thinking Interview Protocols, Data Collection, and Profiling of Pre-Post Results Within and Across DELTA Case Study Schools

This section proceeds though the same steps of analysis as the previous section, but now focuses on the reflective understanding of arts, arts learning, and arts-integrated learning processes through the SEAL Interview protocols.

The interview protocols from the SEAL test [see Appendix B] were designed to generate responses to questions about art and artistic processes that could be rated for degree of sophistication of understanding of arts learning using a common rubric framework across all arts disciplines [see Appendix K excerpt].

SEAL interview structure

The interview content and methods were developed, piloted, and revised extensively throughout the first two years of the project by artists and researchers involved in the DELTA project. A single researcher conducted all the interviews on video throughout the duration of the project. In groups of three, students answered a series of interview questions directed towards their understanding of the art form they were engaging in the DELTA units. Students also had access to a sample of their own work or a photograph of themselves engaged in performance. The questions were sequenced as follows:

- What is art (i.e. dance, music, theater, drawing, bookmaking, etc.)?
- How did you make/create/perform this piece? (related to sample)
- What happens when you make a mistake?
- How do you know when you're finished/ready to perform?
- How do you tell a story through art (i.e. dance, music, theater, visual art etc.)?
- What tools does an artist (i.e. dancer, musician, actor etc.) use?
- What can you express or show through art (i.e. dance, music, theater, visual art etc.)?
- Where do your ideas come from when making art?

In the final year of the project, the interviewer also scripted follow-up questions to elicit further comments, examples, or explanation of the students' initial answers.

During the same interview, students responded either in writing or orally to a non-student sample artwork selected by the teaching artist. The work should reflect genre or materials that students will have engaged in through DELTA [see Figure 16 below].

VIII. Figure 22:   Sample artist work image used for SEAL interview responses to non-student artwork.

After viewing the image of another artist's work, students were asked:

- What is the artist trying to express?
- What questions do you have about this work?
- What questions would you ask the artist?

During the final part of the interview, students reflected either orally or in writing on their own artwork and that of fellow students.

- How did you construct, prepare to perform, etc. this piece?

The SEAL interview scoring rubrics

The rubric system developed to evaluate these responses was based on a five-point scale of 'level of sophistication' that matches the structure and general criteria of the SEAL Performance Assessment Tasks.

The rubric was informed by the pilot version of the interview protocol that was administered in the second year of the DELTA program. Following a thorough review of the students' responses, we were able to develop qualifier statements which helped guide the scoring process for the post interviews administered both in the second and third years of the program. In response to 'What is art?' for example, young students often offered diffuse, general responses

along the lines of "Something you do" or "When you make a painting." Students with a more sophisticated understanding of artistic processes articulated multiple points of view while elaborating on their answers. A more sophisticated answer to "What is Dance?" would typically be along the lines of "Putting together many different body movements to express your feelings or tell a story. For example, once we did a dance that expressed happiness, and I used these movements to demonstrate that feeling."

Thus, responses that received a low score were typically one dimensional, non-specific, and singular; also, when asked to elaborate on these responses, students could not provide additional explanation, comments, or examples. High scores were given to responses that displayed a systemic understanding of the question, suggested multiple perspectives, and were highly elaborative and relatively more detailed. As illustrated in the rubric sample [see Appendix Figure K], a student who responded to the question "What is art?" by stating 'Art is life' would need to elaborate on the remark to get a high score, no matter how profound the statement may have seemed to the interviewer. A student who recited a laundry list of examples of art products (a drawing, picture, painting, etc.) in response to "What is art?" would not get a high score without elaborating on principles or processes that inform art making and perception and/or its role in society or one's personal life.

Rater Reliability

There were several tactics taken to ensure the validity and the reliability of the interview response ratings.

Focus the scoring rubric on levels of reflective awareness and understanding. Because responses to questions about art can begin with highly subjective remarks, the rubric was used for gauging the depth of reflective thinking that went into formulating a response. The interview protocol responses were scored more reliably in terms of the complexity, elaboration, and connectivity rather than a set of pre-ordained objective answers.

Develop procedures for scoring responses under less than optimal conditions for data collection. Threats to the reliability of the scoring system included the uneven distribution of groups and the lack of consistency by the interviewer. Students were interviewed sometimes in isolation and other times in groups. The interview data analysis suffered at times from over-prompting by the interviewer. Those who were interviewed in over active groups were subject to prompting from their peers. Under these conditions the interviewer (and the raters) were urged to determine whether or not a student responded with an answer that directly quoted the interviewer or another student, and based the scoring judgment only on further elaboration by the student. The interviewers were alerted to this scoring process and the need for more extensive follow-up questions under these conditions.

Revise scoring rubrics to include sample benchmark responses in order to anchor judgments by the raters. High levels of inter-rater reliability were achieved only after the rubric systems included model student responses that grounded the differences in ratings.

Create guidelines for dealing with uncertainties in rater judgment. As was the case with the performance assessment tasks, raters were required to resolve uncertainties in scoring by

invoking a rule of 'taking the conservative choice.' Thus, scorers agreed to resolve their conflicts between a higher or lower score by choosing the lower, thus avoiding 'false positives' in the data coding and analysis process. Inter-rater reliability improved greatly using the 'rule of conservative choice" only when scorers were allowed to use ",5" ratings to register differences within, rather than across, rating levels. That is, when scorers could not decide between a level one category response (singular, general, no consistency, novice) and a level two response (some detail, somewhat consistent, some coordination of elements), the scorer could elect a "1.5" rating to resolve this uncertainty instead of being forced to score the lowest rating (1.0).

With a high (95%) index of inter-rater reliability in place, the researchers proceeded with confidence to the analysis of student reflective understanding of arts learning processes as recorded in the last year and a half of the DELTA project.

B-1. Within and across-school comparison of SEAL interview responses Interview data analysis

Profiling students' reflective understanding of artistic process

The analysis of sophistication in interview responses over time (and averaged across grades 1-3) provides strong evidence of increased student reflective understanding of arts learning processes linked with their participation in the DELTA project.

> **Finding 9: Results from pre-post interview responses show that the level of student reflective understanding of art making processes increased in sophistication as the DELTA projects progressed over time.**

In the profile below, all but one question achieved higher levels of response in the post interviews than in the previous cycles of the interview data collection process. Students had developed categorically different levels of sophistication with respect to varied aspects of their own and other's artwork. It was the teaching artist's belief that this new form of awareness would help students to see language arts literacy processes as defined in terms of creative, perceptive, and reflective aspects of artistic processes as demonstrated in the DELTA units.

> **Finding 10: Variability in the pattern and profile of interview responses over time provided evidence of students' thinking moving from concrete-impersonal concepts to abstract-personal understanding of art making processes.**

In the first iteration of the SEAL interview process, the highest ratings occurred in response to the question about the concrete aspects, the tools and materials, of art making (question 6). In time frames 2 and 3 of the interview process, the focus and richness of reflective thinking shifted to questions about a philosophy of art (What is art? Where do ideas come from?) and abstract personal thinking through the arts (What can you express through art?). By the third cycle of interviews the more mundane question about the tools of art making rated lowest in terms of growth over time.

The final interview results also demonstrated that responses to critical aspects of the personal creative process (questions 3 and 4) and the creative process of other artists (question 9) elicited increasingly rich and elaborative reflections from students in all grade levels. From the CAPE artists' viewpoint, growth in these scoring dimensions constituted a particularly important validation of arts learning objectives as the basis for successful arts integration outcomes stemming from the DELTA project.

Profile of Changes in Student Reflective Understanding of Art Making Processes During the Two Years of the DELTA Project.

DELTA Project Student Response Meanscores
Derived from Interview Responses from 2004–2006

1. What is art?
2. How do you create art?
3. What happens when you make a mistake?
4. How do you know when you are finishted?
5. How do you tell a story through art?
6. What tools does an artist use?

7. What can you express through art?
8. Where do ideas come from?
9. What is the artist trying to express?
10. What questions do you have about this work?..
11. What questions woiuld you ask the artist?
12. How did you construct or perform your piece?

■ 2004 Baseline Interview Meanscores ■ 2005 Mid-Project Interview Meanscores ■ 2006 Final Interview Meanscores

VIII. Figure 23: Student averaged levels (grades 1-3) of sophistication with respect to the SEAL interview protocol implemented in the DELTA project. The first eight questions (part one of the protocol) were repeated three times in the three DELTA case study schools (n=326). Pars two and three of the SEAL interview process (questions 9-11) were piloted during this time period.

SEAL interview results across the three DELTA case study schools

> **Finding 11: Pre-mid-post SEAL interview responses provide evidence of the long-term effect that the DELTA program has on students' reflective understanding of art and arts making processes.**

The SEAL Interview processes, as opposed to the SEAL performance assessments (in visual art, theater, and music), and similar to culminating student products (bookmaking), provide evidence of the cumulative effect of the DELTA program. The chart below shows the categorical change in students' reflective thinking about art making based on three interview samples. Gains indicate that the students' were able to demonstrate a richer understanding of art making processes, particularly with regard to the understanding of abstract concepts of self-expression through the arts.

The results also show that the average level of the reflection was ranked according to their level of language literacy (HAL). At every point of the interview process, students rated at higher levels in language literacy skills outperformed the lower rated students. The gains overall were roughly the same for all students, indicating that all students benefited equally from the DELTA arts integration interventions.

Pre-Mid-Post SEAL Interview Response Levels Across All Schools (Grades 1-3)

	Averaged SEAL Interview Response Pre- Score 04 (n=128)	Averaged SEAL Interview Response MId- Score 05 (n=50)	Averaged SEAL Interview Response Post- Score 05 (n=146)	Averaged SEAL Mean Score Differential Pre-Post 04-06
Overall Rating	1.41	2.19	2.56	1.15
HAL Language Literacy Rating				
High	1.63	2.31	2.77	1.14
Average	1.40	2.20	2.59	1.19
Low	1.33	2.11	2.37	1.04
DELTA Case Study School				
Emmet	1.49	2.03	2.44	0.95
Miles Davis	1.35	2.28	2.59	1.24
Sumner	1.40	2.28	2.78	1.38

VIII. Figure 24: Profile of averaged levels of pre-mid-post SEAL Interview Responses (grades 1-3) according to the five-point 'level of sophistication' rating scale. The pre-post analysis in the far right columns shows the overall gains from the fall of 2004 to the spring of 2006 (grades 1-3).

Both achievement gains and improvement scores indicate impressive degrees of effects of the DELTA program across all three case study schools, demonstrating the effectiveness of all art forms to stimulate reflective awareness and understanding of artistic processes. Yet the pattern and the extent of Interview rating changes may differ significantly according to the particular DELTA practices at each school.

The big jump in sophistication of response during mid and post SEAL tests of the DELTA project at the Emmet school may reflect the presence of music, an arts discipline that was only added in the third year. The even more impressive gains at the Miles Davis School may reflect the high degree of collaboration among artists and the richest forms of documentation. At Sumner, the final large jump in reflective thinking skills may be linked to the particular emphasis of the DELTA units and the redesign of the SEAL performance tasks that explicitly invited students to reflect on their learning during the DELTA project over the two-year period.

C. Comparisons Between SEAL Performance Assessment and Interview Results Within the DELTA Case Study Schools

The investigation of the relationship between levels of performance and reflective understanding of art making processes is relevant to determining the coherency of the DELTA program. If student results indicate that a strong relationship exists between these two factors, we can begin to assume that the connections among arts disciplines has a cumulative effect on the understanding of art making that, in turn, may enhance language literacy development.

C-1. Within and across school comparison of averaged SEAL performance and averaged interview responses

> **Finding 12: The statistically significant fit between SEAL performance and interview ratings at the end of the project suggests that coherency between these factors was strengthening as the DELTA program progressed.**

At the beginning of the project there was no evidence of an overall statistically significant fit between the SEAL tasks among the three case study schools. Only at the end did this relationship obtain such that students who excelled in the SEAL performance tasks were likely also to provide sophisticated responses to the SEAL interview tasks as indicated in the scatterplot below.

This trend toward cohesive program results suggests that the overall effect of the DELTA project may be greater than the sum of its parts. The data analysis suggests also that the effect of the program may be just beginning in the third year of the project, since there are many individual exceptions to the general trend.

**The Overall Linear Fit Between Final SEAL Interview Rating and
SEAL Performance Assessment Ratings**
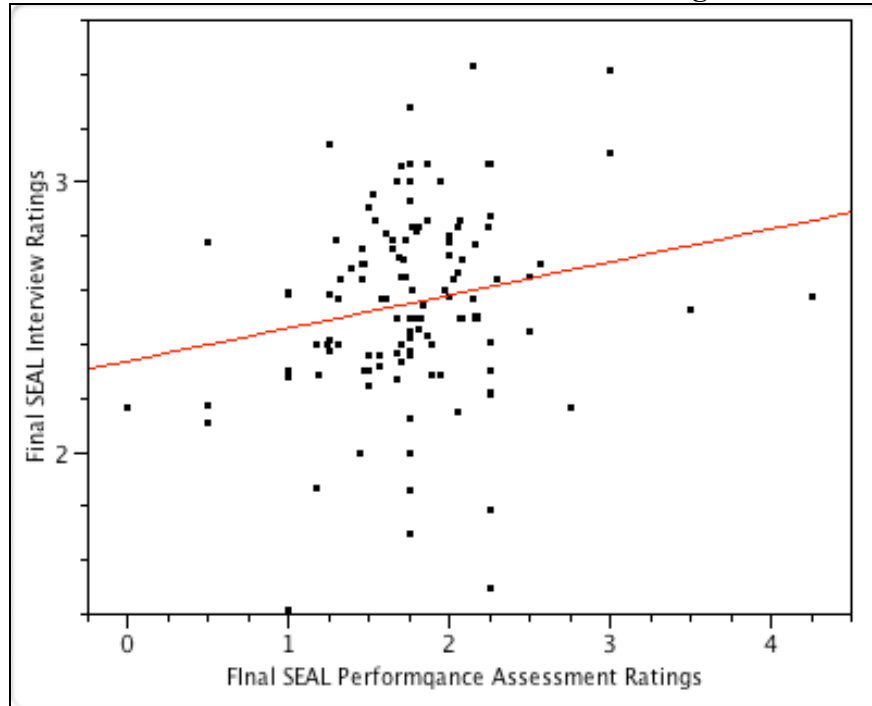
VIII. Figure 25: Bivariate fit of final SEAL Interview Responses with SEAL Performance Assessment Task Ratings (grades 1-3) according to a common five-point 'level of sophistication' rubric scoring system. Statistical analysis provides 97% assurance the results are not due to chance (F=4.79; p<.03). However, the range of deviation from the linear fit is large and thus the rating of explained variance is quite weak (r^2=.04).

Finding 13: Cross-school analysis indicates that the coherency of student learning outcomes contrasts significantly and in ways that can be explained by individual differences in the design and execution of DELTA case study school programs.

The three figures below reveal important distinctions in the degree of coherency of the student learning outcomes in each DELTA school.

The Emmet School (Figure 26) shows a balanced range of performance and reflection scores and an emerging, though statistically weak trend toward correlation between the two factors. At the Sumner School student learning outcomes are weighted toward reflection and exhibit no overall relationship between the two factors (Figure 27). Distinguishing themselves from the other two schools, the Miles Davis Academy results demonstrate a balanced, strong, and statistically significant linear fit between performance and reflective thinking outcomes (Figure 28).

VIII. Figure 26
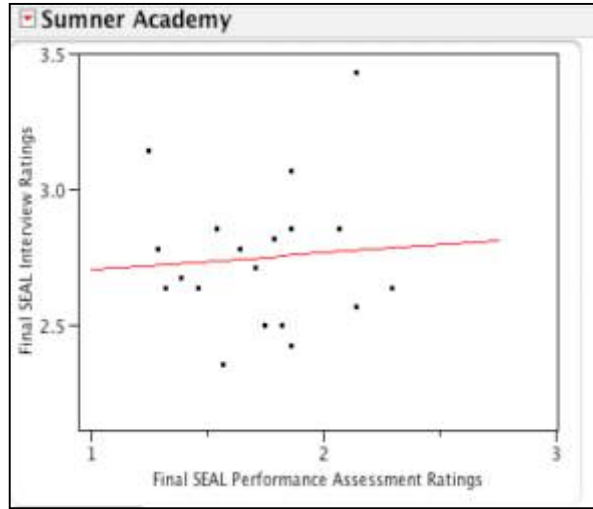
VIII. Figure 27
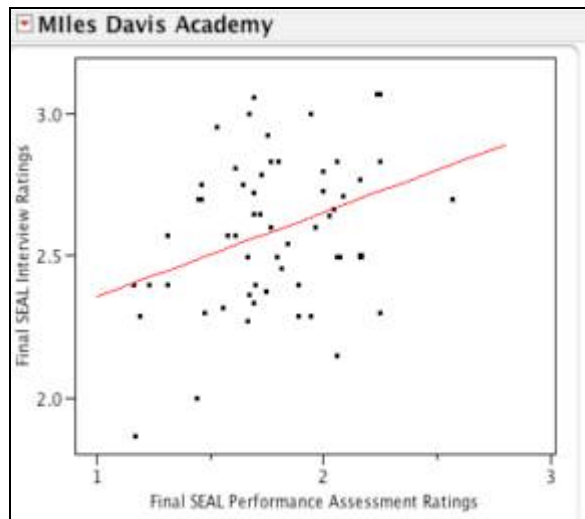
VIII. Figure 26

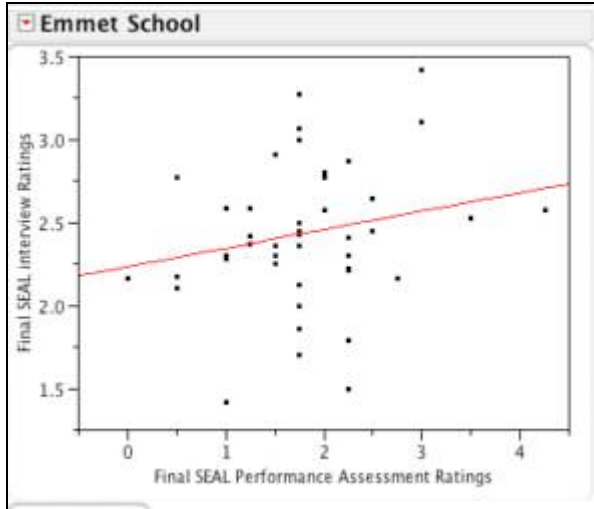**VIII. Figure 26-28: A cross-school comparison of the bivariate fit of final SEAL Interview Responses with SEAL Performance Assessment Task Ratings (grades 1-3) according to a common five-point 'level of sophistication' rubric scoring system. Only the Miles Davis Academy demonstrates a statistically significant relationship between interview and performance assessment results (F=7.36; p<.01; r^2=.12).**

Finding 14: Overall, the correlation between performance and reflection outcomes does not differ according to literacy cohort designation and is strongest at the first grade level.

Despite individual differences in school performance, HAL analysis showed no statistical differences among the three (HAL) literacy cohorts. This finding suggests that the 'degree of coherency' between performance and reflective understanding of art making ratings obtains equally across all levels of language literacy achievement, thus assuring that whatever contribution the DELTA program offers will more likely benefit students equally as the program matures.

Statistical trend analysis also suggests that, by the third year of the project, the first grade students demonstrated the highest inclination toward a high degree of coherency between reflective and performance understanding of art making processes, indicating not only that the program appeals to early literacy students but also that the program itself evolved in its emphasis on integration in the final year of the project.

Furthermore, measures of coherency in student outcomes appear to indicate an increasingly strong association of artistic processes and their possible connection to literacy concepts and processes.

Ultimately, the increasing 'degree of coherency' across art forms affirms the possibility that the integration of art forms – as exemplified in the Miles Davis portfolio presentation – may be a necessary condition for optimizing arts-integrated learning outcomes.

C-2. Profile analysis of Aggregated SEAL assessment scores

> **Finding 15: Analysis of aggregated SEAL performance assessment and interview responses over time confirms that the degree of coherency between these two factors is highly significant.**

Combined ratings in the final year of the project (pre + post data) show that the overall pattern of coherency between performance and reflective thinking tasks are not due to chance. With further stabilization of the assessment instruments and processes, these measures will more likely explain variance at an even higher level of statistical significance.

—continued—

**Bivariate Fit of Averaged Pre-Post SEAL Interview
by Performance Assessment Ratings**
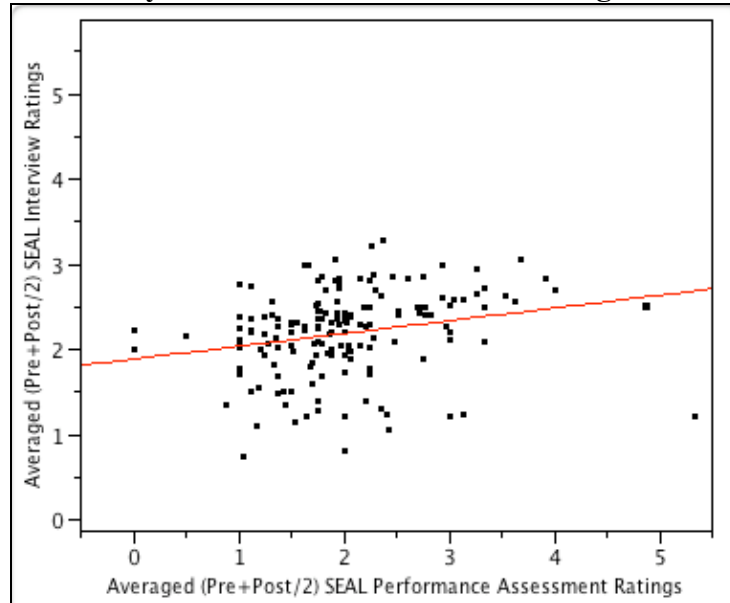
VIII. Figure 29: **The bivariate fit of averaged pre-post SEAL Interview Responses by SEAL Performance Assessment Task Ratings (grades 1-3) according to a common five-point 'level of sophistication' rubric scoring system. Statistical analysis provides 99% assurance the results are not due to chance (F= 9.64; p<.01). However, the explained variance is weak (r^2=.06).**

Finding 16: Analysis of aggregated SEAL performance assessment and interview responses over time confirms that the degree of coherency between these two factors is highly significant across grade levels and literacy ratings, and predominates in the context of the most highly integrated arts learning practices.

The chart below shows pervasive though modest indices of correlations obtained at every level of analysis. Curiously, the higher levels of coherency occurred with high achievers and low achievers, and not with the average literacy learning levels. The effect occurred in all grade levels. When measuring differences across schools, the effect is strongest in the Miles Davis School, and is not statistically significant in the other two schools.

—continued—

Correlation of Averaged (Pre+Post) SEAL Interview by Performance Assessment Ratings by School, Literacy Ratings (HAL), and Grade Level

	Index of Correlation (r)	Probability Value
Overall Rating	.34	p>.0001
DELTA Case Study School		
Emmet	.23	p<.08
Miles Davis	.33	p<.01
Sumner	.01	Not significant
HAL Language Literacy Rating		
High	.46	p<.01
Average	.13	Not significant
Low	.38	p<.02
Grade Level		
Grade 3	.36	p<.01
Grade 2	.44	p<.001
Grade 1	.36	p<.01

VIII. Figure 30: Profile of averaged levels of pre-mid-post SEAL Interview Responses (grades 1-3) according to the five-point 'level of sophistication' rating scale. The pre-post analysis in the far right columns shows the overall gains from the fall of 2004 to the spring of 2006 (grades 1-3).

Finding 17: Analysis of aggregated SEAL performance assessment and interview responses show that overall achievement levels are aligned with initial literacy cohort ratings, and not grade level, and that the highest levels of achievement occurred in the context of the DELTA practices at the Miles Davis Case Study School.

As displayed in the figure below, amalgamated achievement ratings combining both reflection and performance aspects of arts learning indicate that the arts learning is not as strongly associated with grade level performance as it is with language literacy cohort rating. This finding indicates that the DELTA arts learning outcomes reflect a genuine focus on enhancing literacy skills rather than reflecting general maturational differences in students in grades 1-3.

Levels of arts learning achievement are highest at the school that also had the highest degree of coherency between the two factors. In addition, model building stepwise regression analysis confirmed that Miles Davis school ratings were the strongest predictor of arts learning of overall effects of the DELTA model (r^2 = .21 F Ratio = 49.89; p<.0000), controlling for grade level, HAL cohort, and other school effects.

Taken together, these statistical findings establish the Miles Davis program as the optimal condition model for DELTA project objectives.

**Analysis of Variance (ANOVA) of Averaged (Pre+Post;
Interview +Performance Assessment) SEAL Ratings by School, Literacy
Ratings (HAL), and Grade Level**

	Combined Rubric Rating	ANOVA (Tukey) Comparison of Pairs (difference in letters are significant)	Probability Value
Overall Rating	1.95		
HAL Language Literacy Rating		F=2.72	p<.05
High	2.08	A	
Average	1.90	AB	
Low	1.79	B	
Grade Level			Not significant
Grade 3	2.15	A	
Grade 2	2.04	A	
Grade 1	2.08	A	
DELTA Case Study School		F=9.39	p<.0001
Emmet	1.88	B	
Miles Davis	2.15	A	
Sumner	1.77	B	

**VIII. Figure 31: Profile of averaged levels of pre-mid-post SEAL Interview Responses
(grades 1-3) according to the five-point 'level of sophistication' rating scale. The pre-post
analysis in the far right columns shows the overall gains from the fall of 2004 to the spring of
2006 (grades 1-3).**

**Finding 18: Differences in the combined measures of performance-reflection
arts understanding are predicted primarily by SEAL performance tasks.**

Regression analysis determined that the averaged SEAL performance tasks outpredict all other
factors associated with combined interview and performance assessment outcomes (r^2 = .77 F
Ratio = 400.2; p<.0000),   This finding substantiates the sophistication of interview response
outcomes as a general indication of art making understanding, such that the within-discipline
level of performance tasks achievement became the most sensitive indicator of overall
knowledge of art making from dual perspectives.

Thus, it can be concluded that the Miles Davis School's performance assessment practices,
which succeeded beyond the SEAL tasks in the other case study schools, may have been the key
element of completing the circle of performance-reflection aspects of arts learning.

D. Report on the Relationship Between Student Arts Learning Assessments (SEAL) and
    Standard Language Literacy Assessments (DIBELS, Iowa TAP assessments)

The findings reported in this chapter provide considerable detail concerning the nature of arts
learning and its relationship to school practices, grade level effects, and HAL language literacy

designation student cohorts within each school. Unfortunately, a thorough investigation of the statistical relationship between SEAL arts learning assessments and standard language literacy test results administered in Chicago Public Schools was not possible.

> **Finding 19: Issues of non-comparability in data prevented a meaningful and statistically valid analysis of the relationship between arts learning and language literacy skills.**

Issues of non-comparability in assessment task design, implementation and data collection permeated almost every phase of the project. Four studies exploring the relationship of SEAL task performance to language literacy outcomes depended on three sources of data collection.

1) SEAL Task/Language Literacy standardized test availability. As explained earlier, the SEAL assessments were designed to parallel a standardized test that was no longer supported by Chicago Public Schools by the second year of the DELTA project. The Dynamic Indicators of Basic Early Literacy Skills (in two of the DELTA case study schools) and the Iowa Tests of Academic Progress (in the other school) became the tests of choice, further complicating the comparable measurement of arts and language literacy. Of the data that were collected, most were uneven in terms of grade level, sample size, or population of students from year to year. All of these factors lowered the possibility of detecting significant relationships among variables to be compared with arts learning scores.

2) SEAL task design and implementation. As previously reported, the artists had difficulty holding to a constant implementation of pre-post assessment design, in some cases throughout every year of the project. Of the data that were collected, most were uneven in terms of grade level, sample size, condition or timing of the tasks, or population of students from year to year.   All of these factors, particularly in combination with missing data from the language literacy tests, lowered further the possibility of detecting significant relationships among variables to be compared with arts learning scores.

3) School administered and school district standardized test results. For unknown reasons the schools were unable or unwilling to collect or provide complete data sets. Self-administered literacy data were spotty or missing complexly. Unfortunately, the schools faltered most at the end of the project when the results of the SEAL tests became most refined and reliable. The loss of these data made most within-school comparisons and all across-school assessment impossible.

Despite all the compromising circumstances surrounding the data collection process, it was still surprising that absolutely no positive, statistically significant correlations were drawn across any SEAL test factors with any measure of progress or achievement in the DIBELS or TAP tests at any grade level, in any HAL cohort, or with any school.

Is it possible that the DELTA assessments really measure something completely different from literacy concepts and processes in the language arts? Judging from results from other studies of focused early literacy and music literacy, this appears unlikely, especially in the DELTA music

SEALS task design at the Emmet School. Unfortunately, inconsistencies in task design and data collection make the hypothesis of mutually reinforcing alternative measures of literacy impossible to verify.

Perhaps the Sumner data reflects the focus on social, visual literacy, creative, or reflective thinking processes instead of on literacy skills and processes shared between visual art and language literacy. Without access to rigorously collected language or academic skills standardized test data, we cannot explore this hypothesis further.

Surely the storytelling-bookmaking project at the Miles Davis Academy should have made some connection to academic testing. It seems improbable that results from the Miles Davis Academy, – a school that demonstrated exemplary teaching and curricular practices, that scored the highest levels of achievement and 'degree of correlation' among SEAL performance and reflection tasks, and that demonstrated the strongest association with student literacy cohort levels – would not at least mildly correlate with standardized tests of literacy. On the other hand, it is possible that a significant relationship would not correlate because the standardized tests employed in Chicago public schools were too narrowly focused to capture the wide ranging learning effects obtained in the DELTA units. Then again, a ten-week unit may not last long enough to establish a significant connection with standardized test outcomes in language literacy. In any case, we could not investigate these avenues of inquiry in this report because no measures of language literacy were supplied internally for analysis from the Miles Davis Academy, nor have the Chicago public schools or the state of Illinois provided external standardized academic test data that would have afford another avenue of studying the relationship of DELTA project outcomes to general measures of academic achievement.

E. General Summary of the DELTA Project Statistical Results

This chapter reported on the development, implementation, and analysis of a newly created assessment system for arts learning in the context of arts integration practices. Validated by artists and refined through the guidance of arts learning researchers, arts specialists, arts organizations, public schools and schools of the arts can now build on the creation of early arts learning measures designed for students receiving at least ten-week units in arts and in the context of arts-language literacy integration units.

The statistical results of the DELTA project arts learning (SEAL) outcomes as a whole reflected a dual focus on performance and reflective understanding of arts learning processes that were, in the minds of the teachers and teaching artists, linked with language literacy concepts and processes. The outcomes were determined through a common rubric that established comparability across all the variables.

Arts learning outcomes confirmed that the best practice school portfolio exemplars could be confirmed through reliable individual student assessments. These results defined qualitatively different levels of arts learning achievement that could be cross-referenced to school, language literacy, and grade level cohorts.

Results demonstrated that the Miles Davis Academy practices and outcomes best represented the positive effect for arts learning in the context of its integration with language literacy. Unfortunately, the lack of standardized measures prevented a final analysis of the relationship between strong measures of arts learning and its possible relationship to language arts learning skills, processes, and curriculum objectives.

IX. Conclusions, Implications, and Lessons Learned

A creative tension emerges as the DELTA Project develops

Over time, discrepancies in the participants' understanding of the Developing Early *Literacies* Through the Arts project emerged from an interesting perplexity regarding the pluralization of the word 'literacy.' From the school's point of view, DELTA primarily meant enhancing English language reading skills through arts learning activities [see title page top photo]. The teaching artist's point of view was to expand the understanding of literacy to include experience of parallel sets of literacies in visual art, theater, music, and dance.

Thus, the research questions guiding the project's development were investigated in the context of the creative tension between (a) creating various arts activities as tools for serving language arts literacy skill development and (b) engaging students in various arts learning processes as a way to broaden and deepen understanding of the concept of literacy itself.

A deliberate strategy for melding both arts and language literacy learning objectives was for the Chicago Arts Partners in Education (CAPE) to provide ongoing arts integration professional development services and guidance for classroom teachers and teaching artists. Based on a long history of practices in schools and a recent history of professionalizing artists as action researchers, CAPE guided the development of DELTA arts integration units and assessments as a primary strategy for investigating the impact of 'developing early literacies through the arts' in three Chicago public elementary schools.

The organization of findings from mixed methods

The findings from this project are divided into two parts: (a) three case study school reports that rely on descriptive data and best practice exemplars from interviews and DELTA project digital portfolios to provide the best evidence of the model-building and portfolio dissemination phases of the project, and (b) qualitative and statistical analysis of data from teacher interviews, surveys, and observations and student interviews and performances. Conclusions and implications stemming from this report focus on both the richness of the case study reports as models for DELTA arts integration practices and on the analysis of incomplete data collection processes from some schools, demonstrating the challenges of this research model and suggesting recommended next steps for the DELTA project and other quasi-experimental arts integration research studies.

A. Case Study School Reports as Descriptive Evidence for the Successful Model Building

The extensive and detailed case study school reports establish several positive and interdependent outcomes related to the model building aspects of the DELTA project:

- the creation of the DELTA digital portfolio system that showcased exemplary arts-integrated literacy units, collaborative teaching practices, and documentation of the impact of the projects on students, artists, and teachers, and

- the evidence that arts-integrated units can engage all levels of student literacy learners in music, theater, storytelling, bookmaking and visual arts processes focused on enhancing language literacy skill development.

Reflecting on professional development and product development over three years, the portfolio work presented here captured the essence of the DELTA teaching and learning practices. Relying on examples drawn from the DELTA digital portfolio system (a major professional development outcome of this project), the case studies provided multiple forms of annotated documentation of the sample arts integration work products and processes from the teacher, artist, and student points of view. Thus, the selected DELTA artifacts that are accompanied by the testimonials and findings reported here become guidelines for the validity of the units forboth classroom teachers and teaching artists, their successful implementation in three different grade levels, and the applicability of the DELTA case study examples to larger scale implementation.

Taking the cases studies as a whole, it is intriguing to imagine an arts-integration curriculum where the combinatorial effect of the three DELTA strands may indeed exceed the impact of the sum of the parts reported here:

Strand 1: Parallels and Connections Between Language and Music Literacy Processes [learning to read and write words set to music]

Strand 2: The Triangulation of Dramatic, Visual, and Language Literacies [theater-visual art story writing and bookmaking projects]

Strand 3: Building a Classroom Learning Community and Enhanced Literacy Skills Through the Visual Arts [visual illustration, word play, symbols, portraits, mural-making]

B. Interview Analysis as Evidence for the Practical Validity and Value of the DELTA Curricular Models and Professional Development Practices

The validity of the exemplary work case study findings was explored also through qualitative analysis of teacher and teaching artists interviews. Interview responses from the teaching artists spawned significant inquiries into: (a) the contribution of particular art forms and their potential for enhancing language literacy skills, and (b) changes in arts teaching and assessment practices due to their focus on arts-integrated literacy projects. By the third year of the project, the interviews became markedly more forthcoming about evidence of the positive impact of the DELTA project as well as about its limitations.

The first two findings summarized below provide insight into the nature and development of the teaching artist/classroom teacher relationship as the driving force behind the case study portfolio work described in the first part of the DELTA report:

- *The CAPE professional development program guided the collaborative design and teaching practices between teaching artists and classroom teachers essential to the long-term success of the DELTA project.*

By the third year, teaching artists reported that "the light bulb finally went on," and arts learning connections with the curriculum were made. At that point the teachers became supportive and really wanted this project to work. When artists came into the class, "students put their books away and were ready to start, ready to dive in." Under the best of circumstances, "the whole year was just excitement, and the teachers were always right there taking notes," never leaving the classroom but rather "always getting involved and challenging the students as well."

Thus, sustained collaborative teaching fostered a more sophisticated approach and understanding of children's literacy skill development, and as the collaboration between the teaching artist and classroom teacher improved, students were more challenged and excited about their DELTA work.

- *Throughout the development of the DELTA project, both teachers and teaching artists increased their understanding of how arts learning processes and products enable students to work at a higher level of motivation and at a higher standard of work.*

Collaborating teachers and artists understood that the DELTA units allowed arts learning processes to function as an alternative mode of development of early literacy skills. The artistic processes that emerged from the DELTA projects that most impressed the classroom teachers were those that (a) promoted *learning from mistakes* ("it's ok to make a mistake as long as you learn from it"); (b) *used arts learning as a tool for developing narrative* ("arts can be used not just as a form of self-expression, but as a tool to focus on expressing narratives"); and (c) *melded arts learning into the context of literacy instruction for the purpose of synergizing learning* ("I think once they've created images for their book, kids really try harder to write well because they want their story to succeed").

Thus, when students in the DELTA project look at a word and then associate it with their storytelling, illustration, or song lyric, reading comprehension and writing skills draw on a broader frame of reference and experience.

- *Teachers and teaching artists believed that the DELTA program succeeded by going beyond the parameters of conventional literacy instruction practices in ways that would not necessarily translate into improvement in standardized test performance outcomes.*

Teachers reported an increased vocabulary in the three years of the project. Evidence for the increase often came from the students' highly creative and expressive personal journal entries or in the reflective writing they were doing in class. Unfortunately teachers did not see the translation of creative and expressive aspects of the DELTA program having much effect on standard tests of literacy skill performance, a finding that challenges a core hypothesis of the DELTA project.

Nonetheless, teachers and teaching artists both believed that engaging student in arts learning processes ultimately enhanced understanding of literacy creative and comprehension processes regardless of narrowly defined measures of literacy such as word fluency or spelling tests currently administered in Chicago Public Schools.

- *Over time, DELTA had a strong impact on classroom teaching practices and less impact on whole school improvement.*

  Judging from interview responses, participants were likely to credit the DELTA project with changes in classroom practices but did not cite much change in school practices. DELTA teachers reported that arts learning catalyzed cognitive, meta-cognitive, aesthetic and social-personal aspects of learning that may be largely ignored in conventional approaches to literacy instruction. Furthermore, such attention also impacts the entire classroom dynamics in a way that veteran teachers recognize as unprecedented in their previous experience of teaching.

  Unfortunately, there was no testimony that directly supported whole school effects of the DELTA program other than indications that individual teachers would attempt to extend their arts-integrated literacy practices on their own. Perhaps due to competing priorities, teachers and teaching artists in the DELTA schools did not expect the program to continue because the project was not prioritized sufficiently by the school administration for it to achieve policy status for enhancing language literacy performance.

  The veteran CAPE teaching artists did feel that the DELTA project would succeed in schools dedicated to using arts-integrated professional development and teaching practices as a strategy for enhancing early literacy skill development as part of planned whole school improvement objectives.

C. Classroom Teacher Survey Results as Evidence Supporting the Validity of Arts-Integrated Learning and the Importance of Arts Integration Professional Development

Pre-post teacher survey data provided valuable windows into their convictions about and experience with various components of the DELTA program. Summarizing these results, we see that although the underlying belief in the value of integrating arts learning processes with literacy instruction remains inviolate, teachers were able to provide valuable insight into the DELTA project development by articulating specific criteria for program focus, implementation, assessment, and teaching characteristics that were most closely associated with its success as a model and with its eventual dissemination in Chicago Public Schools.

What Teachers Believe about the Nature of Arts Integration Teaching and Learning

- *Teachers have particular reasons to believe that specific arts integration practices can enhance early literacy skill development.* Reasons for this conviction rest primarily on the assumption of (a) classroom teachers and community artist/arts specialists as co-planners and co-teachers of the DELTA units; (b) the focus of teaching on parallel literacy concepts and processes across disciplines; and (c) the inclusion of assessments for multiple forms of literacy within each of the project activities.

- *Teachers believed that arts integration can improve overall academic achievement, including language literacy, and should become a priority in their teaching practices.* However, teachers are not as convinced that arts integration literacy instruction would contribute to the whole school standardized test performances or to community concerns, such as youth crime rate, attendance, or whole school reform planning.

Conditions that Teachers Think Favor Successful Arts Integration and its Application to Language Literacy

- *Teacher validated specific criteria for evidence of successful arts integration practices in schools.* Teachers were most likely to stress (a) the inclusion of arts teachers in whole staff literacy planning sessions, (b) the genuinely productive relationship between the artist and the school, classroom teachers, and students, (c) the extent to which arts learning is included in literacy lessons and assignments, and (d) the visibility of artwork related to literacy learning in classroom practices and as displayed in school hallways, classroom walls, and exhibitions.

- *Teachers believed that literacy learning is enhanced through arts integration practices when commitment is given to eight factors of support.* Highest on the list of factors was (1) opportunities for ongoing classroom teacher professional development events with particular attention to (2) collaborative forms of professional development with teaching artists. Other factors included (3) team teaching, (4) collaborative planning time, (5) administrative support, and the need for (6) mutual respect for both art and academic content, (7) literacy content flexibility in curriculum design, and (8) the development of instructional materials to support arts-integrated literacy teaching and assessment practices.

Building Teacher Capacity Through Arts Integration Professional Development

- *Teachers for the most part had no previous professional development or experience with arts integration, yet reported significantly improved comfort and competency with all four art forms as the DELTA project progressed.* Teachers experienced the most comfort and competency with visual art, followed by drama, music, and finally dance/movement. These ratings may reflect the fact that music was relatively less present in the CAPE program (music only was effective in the final year of the project) and that the dance services had no presence in the case study school reports.

- *Teachers rated the importance of the four arts disciplines equally in terms of how they can impact arts integration goals successfully.* More important to the teachers was the quality of arts instruction, its emphasis on general artistic processes (creativity, expressivity, etc.) and their connection to culture and community.

Changes in Teachers' Views of Assessment Practices

- *Pre-Post Survey ratings of the percentage of time allotted to evaluation practices reveal interesting differences in modes of assessment according to focus on academic, arts, and specific language literacy learning.* In all three cases, teachers maintained a strong focus on class process observation and the evaluation of final work products.

In the case of academic learning, it appears that during the DELTA project teachers changed their emphasis on assessment of general academic subjects from standardized tests to evidence of learning distilled from process portfolio and student reflective writing work samples. The DELTA project appears to have encouraged teachers to track arts learning increasingly through process-portfolio based conference assessments. Time spent on language literacy assessments seems to have decreased dramatically during the DELTA project. This drop-off appears to be a result of proportionally less time spent on testing to time spent on process observation and teacher-student conferences.

Characteristics of the Successful Arts Integration Teacher

- *Teacher survey ratings of the important characteristics of a classroom teacher, arts specialist, or artist participating in arts integration practices provides a profile of the most important factors of success in the DELTA project.* Most important to teachers is the 'degree of interest' and 'enthusiasm' in interdisciplinary teaching and the 'flexible incorporation' of arts to teaching academic subject areas that best predicts success in arts integration practices. The factors that increased the most were the 'ability to team teach,' to expand 'content knowledge of within-the-arts disciplines,' and the willingness to 'take risks and try new teaching approaches to arts-integrated learning.' Less important were organizational aspects of arts integration or a particular interest/level of experience with an art form.

Teacher survey conclusions and implications

The survey results reveal that classroom teachers are more apt to see arts and arts integration learning as strategies for improvement of teaching and learning in general. In the DELTA project, arts learning is incorporated for its own sake, for the sake of student engagement, and for expanding teachers' capacity to teach literacy through artistic processes such as creativity or expressivity and to connect literacy skills with culture and community building. The characteristics of the successful implementation of DELTA were linked strongly to aspects of classroom teacher-teaching artist collaboration and a mindset of curiosity, risk-taking, and openness to change.

Interestingly, teachers rejected the notion that the DELTA project would necessarily enhance student performance on standardized tests. Instead, teachers increasingly favored more qualitative and pluralistic measures of learning that included expanded use of student process observation, reflective writing, and portfolio assessments.

For the purposes of future replication and pursuing more specific lines of inquiry, survey questions should be formulated to learn more about how teachers view the extent to which each arts discipline contributes to specific aspects of language literacy learning objectives. A series of teacher ratings, for example, could be constructed to answer the questions: To what extent does the level of understanding of music reading in or out of the context of music-integrated songwriting tasks predict competency with regard to word segmentation, auditory discrimination, or reading comprehension skills? To what extent does the ability to act out and formulate storyboards forecast levels of word decoding, reading comprehension, or writing skills? To what

extent does the developmental level of drawing skills in the context of word play, symbolization of word concepts, or depiction of social concepts in mural drawing mirror vocabulary, word skill, or general comprehension?

D. Teacher Literacy Observation Data Analysis as Evidence Supporting the Validity of the DELTA program as a Literacy Intervention Project.

The analysis of classroom literacy instruction observations provided a way for artists and teachers together to provide a broader and deeper view of literacy instruction and learning based on careful observation of current literacy instruction in Chicago Public Schools.

Having access to literacy observation profiles from language literacy specialist Dr. Shari Frost meant that CAPE teaching artists had opportunities to design DELTA activities that enhanced the more under-represented aspects of literacy instruction standards, such as those indicated below:

Observation Critique 1*: Case study classroom teachers need to find ways to encourage student reading beyond the school day*.

> Intervention: DELTA units encouraged students to find ways to engage literacy processes outside of normal classroom activities (in units that featured mural projects, public performances and exhibits, study of vocabulary used on the playground, etc.) and to explore alternative forms of literacy media outside of print media (such as storytelling on TV, listening to songs for lyrical content, drawings to illustrate word meanings, etc.).

Observation Critique 2*: Case study classroom teachers need to make sure that each student has a clear idea of his/her own progress/success in learnin*g.

> Intervention: DELTA units furthered student awareness of their own progress by making rich documentation of process and products mandatory; by promoting journal writing to help students self-assess their work in reference to learning across disciplines; by using DELTA work folders and portfolio presentations to help students observe systematically their own progress; and by ensuring student ownership of the DELTA arts-enriched literacy projects through multiple occasions for creative choice and imagination.

Observation Critique 3*: Case study classroom teachers need to make sure that each student has a clear idea of his/her own progress/success in learnin*g.

> Intervention: With collaboration teaching practices in place, DELTA units offer additional time for literacy learning progress to be observed by the classroom teacher, while the arts activities are being led by the teaching artist; thus responsibilities for documentation are distributed between the classroom teacher and teaching artist, and the DELTA students will have a clearer awareness of their own progress.

Observation Critique 4*: There is a need for more frequent assessment of what is taught.*

> Intervention: With DELTA arts integration units in place, informal assessment happened continuously and reflectively and was more apt to be captured on videotape and in journals as part of the DELTA portfolio documentation methods.

Rather than looking at findings of deficits in conventional literacy instruction as impediments to the project, the DELTA teams took the opportunity to create compensatory learning activities that provided increased opportunities for arts-infused literacy learning. This exploration of multiple forms of literacy ultimately reinforced the presence of high quality standards of classroom literacy instruction – a primary goal of the DELTA program as a literacy learning intervention.

E. Arts Learning (SEAL) Test Data Analysis as Evidence Supporting the Validity of the DELTA Arts Integration Practices

Summary of test instrument development

A major product of the study, the SEAL Assessment Framework, developed out of a consensus-building process that involved CAPE artists, staff, and researchers. Consensus about fundamental understandings of artistic processes across art forms evolved out of discussion among expert dance, music, theater and visual artists informed by past practices in arts learning assessment presented by researchers. Once consensus on the dimensions of the SEAL framework was reached, this underlying conceptual framework guided the creation of performance assessment tasks in each art form and comparable 'level of sophistication' scoring rubrics adapted to each art form.

The SEAL assessments included opportunities (1) to observe student art-making performance tasks (2) to elicit student responses to interview questions about art and artistic process and to another artist's work, and (3) to elicit student reflections on their own work [B3.]. SEAL problem-solving tasks thus became critical occasions for documenting and eventually rating individual levels of understanding as they changed over time.

Unfortunately, three problems surfaced after the development of the SEAL performance assessments: (1) the parallel relationship between the structure of the ISEL literacy tests and the SEAL arts learning assessments was no longer in place, thus dampening expectations for DELTA enhancing literacy test scores; (2) it was discovered that some SEAL performance tests did not elicit nor capture the range or sophistication of student work when compared to the level of work featured in the DELTA portfolios, thus limiting the relevance of the SEAL performance task assessments; and (3) in some cases the design or the conditions of the pre-post testing changed within the academic year, thus invalidating the comparison between the pre-post tests. These three problems lowered the statistical power and range of the data comparisons.

Nonetheless, in many cases comparisons within the SEAL tests attained acceptable levels of statistical significance and are reported below, whereas comparisons between SEAL tests and standardized language literacy tests could not be compared due to insufficient data collection or the inability or reluctance of some schools to make these data available.

F. Principal findings from the statistical analyses

The combined effect of SEAL performance tasks:

Although individual pre-post comparisons were not possible to analyze due to differences in implementation, the averaged Pre-Post SEAL performance task results combined across music visual art and theater indicate that statistically significant gains in arts learning occurred during the cumulative process of two ten-week DELTA units.

Had the tests maintained their structure in theater and visual arts, there is every reason to believe that these results would have been statistically significant in individual art forms. Furthermore, given that these results were obtained in just over half the weeks of the academic year, one is tempted to extrapolate further and assume that full-time instruction with an arts-integrated training might also have optimized the results.

Growth in Reflective Understanding of Art and Artistic Process

Results from the consistently administered parts of the pre-post SEAL interviews show that the level of student reflective understanding of art making processes increased in sophistication as the DELTA project progressed over time. Furthermore, variability in the pattern and profile of interview responses over time provided evidence of students' thinking moving from concrete-impersonal concepts to a more abstract and personal understanding of art and art-making processes.

The cognitive-developmental shift in arts understanding found in these data suggest that an enriched understanding of art-making processes helps students to discover that ideas can be expressed in various artistic forms and symbol systems. Thus, art-making processes became an opportunity for gaining a deeper appreciation of language literacy as a skill needed not only for expository writing and but as a way to discover richly personal and descriptive forms of language expression that are embedded in poetry, acting, storytelling, illustration, and song.

Results from Studying the Relationship between Performance and Reflection SEAL test results

The statistically significant fit between SEAL performance and interview ratings at the end of the project suggests that the relationship between these factors was strengthening as the DELTA program progressed. This finding suggests that both rising scores and an increasing 'degree of correlation' signifies also a more coherent understanding of arts learning processes.

Cross-school analysis, however, does indicate that the coherency of student learning outcomes contrasts significantly and in ways that can be explained by individual differences in the design and execution of DELTA case study school programs as illustrated by the findings below.

G. Differences in Statistical Results among DELTA Schools

Promising Results from the Emmet School DELTA program

At Emmet, pre-post results show significant evidence of student growth in music notation skills over the ten-week DELTA unit. However, results with music did not correlate strongly with reflective thinking responses to interview questions about music or visual art-making processes, suggesting a weakness in the coherency of students' overall understanding of arts-making processes, let alone their connection to language literacy processes.

Harboring an alternative symbolic literacy system, the Emmet SEAL Task provides another kind of literacy skill coherency by widening the range of both symbol decoding and comprehension skills of the lower literacy level cohorts. Performance task data results in this project suggest that music may bridge gaps between high and average/low readers. It may also be possible that this gap between disparate forms of literacy is traversed only when reflecting thinking and performance skills are in good standing with one another.

Minimal Results at the Sumner Academy DELTA program

With respect to visual arts SEAL test results at the Sumner School, there again appears to be no relationship between arts reflective thinking skills and performance skills in visual art. This may be due to the students being involved with other art forms such as dance, which in the portfolio exhibitions contributed no evidence of performance task achievement or reflections on arts processes.

Optimal, yet incomplete results at the Miles Davis Academy DELTA theater-visual art program

Portfolio analysis and statistical results established the Miles Davis Academy as the DELTA site best aligned with optimal conditions for arts-integrated learning.

Theater SEAL performance outcomes, for example, suggest that improvisation exercises provide a measure of language literacy skill development independent of literacy learning cohort designation or grade level. Acting, like the music program at Emmet, provides an important alternative entry point into language literacy learning. Visual arts and book-making projects appear to function as complementary measures of early literacy through the arts. Illustrated book-making is closely aligned with language literacy cohort levels, whereas visual arts stories provide a measure of understanding language literacy independent of grade or literacy cohort level.

Furthermore, it appears that complementary aspects of the DELTA Program development established at the Miles Davis Academy led to exemplary arts integration units and the clearest measure of impact of these units on student learning. This school's DELTA units demonstrated that the effect of arts learning appears to increase most significantly (a) when the arts integration activities are closely related to fundamental concepts and processes shared between acting, storytelling, illustration and bookmaking; (b) when teaching artists collaborate with each other as well as with the classroom teachers; and (c) when the teaching artists design and collect high quality documentation of student work and assessment tasks.

Consequent analyses of aggregated SEAL performance assessment and interview responses over time confirm that the degree of coherency between these two factors is highly significant across grade levels and literacy ratings, and predominates in the context of the most highly integrated arts learning practices. Analysis of aggregated SEAL performance assessment and interview responses reveal that overall achievement levels are aligned with initial literacy cohort ratings, and not with grade level, and that the highest levels of achievement occurred in the context of the DELTA practices at the Miles Davis Case Study School.

Although the Miles Davis Academy established the most cohesive program in terms of its SEAL test data and the analysis of relationships for evidence of coherency between various forms of arts learning, no connection to standardized language literacy tests could made because the data were not collected or made available for the purpose of the final year of program evaluation.

H. Overall DELTA Program Outcomes

Below are brief summaries and a general comparison rating of the quality of each of the DELTA model program components, as presented in the case study portfolios and/or verified by the teacher/artist surveys and interviews.

- *DELTA Curriculum Design*. All three DELTA case study schools produced exemplary curricular unit designs structured as ten-week arts learning interventions designed to enhance literacy learning. Each unit features (a) substantial and potentially measurable discipline-specific arts and 'parallel process' language arts learning and skill building objectives; (b) challenging opportunities for all students to investigate and reflect on 'big ideas' or 'fundamental concepts' about literacy that required student engagement with multiple intelligences, parallel symbol systems, and alternative modes of representation of literacy skills; and (c) documentation of group and individual work that revealed a distributive process of higher order thinking skills through inquiry, experience, creativity, performance and reflection by students and teachers. These units, featured in the case study portfolio as described earlier in this report, exemplify the clarity and richness of music, theater, and visual arts curricular models, and in the case of the Sumner Academy the collaborative design processes resulted in an emergent curriculum model focused on establishing social standards for the class as a learning community.

- *Teaching Practices*. DELTA teaching practices ranged from (a) relatively isolated and focused on the introduction of new kinds of literacy informed by class language arts objectives (music and lyrics); (b) art forms closely combined to focus on the enhancement of language learning objectives (theater-based story writing combined with illustrative drawings), and (c) highly collaborative, emergent curriculum designs that explored a large range of visual arts approaches to words, symbols, social studies, and social-emotional development (visual word play, symbolic play, self-portraits, depiction of community roles, and scenes with a cityscape mural). Evidence of teaching for transfer was explicit in all cases: (a) setting texts to music with consideration of rhyme structure, syllabication, auditory discrimination, etc.; (b) creating stories that conform to dramatic form and the creation of storyboards that capture the essence of these structures; and (c) visual word play, word dictionaries, and mural making that embed meaning in the depiction or illustration of words, leading to a creation of community scenes and

characters that provide further social and personal contextualization of literacy learning objectives. Overall, CAPE teachers and their classroom teaching partners used the DELTA units to inspire children to create richly expressive explorations of arts and language literacy processes that provided new forms of evidence of literacy learning that extend beyond the conventional approaches to literacy learning.

- *Student Work Documentation*. As described in the previous sections of this report. DELTA student work samples in the three studies offered rich illustration, rather than systematic documentation, of arts learning in the context of arts integration applied to literacy. The exemplars featured in the case study DELTA portfolios provided an index of high responsiveness to the tasks and a wide range of creative capacity. As described later in this report, the artists found it difficult to devise, implement, and/or document pre-post assessments that allowed for rigorous comparison across grade levels, classes, or schools. These limitations suggest that the quality of illustrations were high and informative and reveal much about the learning process, yet we see limited evidence of documentation being used to measure changes in pre-post individual student work, either in literacy or arts-integrated learning tasks.

- *Formative and Summative Classroom Student Work Assessment*. DELTA student work assessment instruments, scoring rubrics, were mostly missing in the portfolio work. Perhaps due to an understanding that documentation would all be reviewed by the research team, or that standardized test results were not of concern to classroom teachers, there was little evidence presented in the case study schools that artists and teachers spent significant time devising formal assessment rubrics or grading systems that could be used as measures of arts or arts-integrated learning in the classroom during the course of the project. There is mention of SEAL pre-post tests in the interviews, but the actual assessment of this work was not conducted by the teachers or teaching artists and therefore did not provide formative or summative assessment of the DELTA units during the course of the project development. Future arts-integrated learning projects will need to incorporate classroom assessment methodologies that can deliver information to teachers and provide evidence of learning outside of standard language literacy tests, such that we can see the relationship between arts and language literacy learning in classroom contexts.

- *DELTA professional development outcomes*. Indications of high-quality professional development were indirectly evident in all aspects of the DELTA portfolios. Curriculum design work, description of collaboration, careful selection of student work, and description of results, findings, and reflections on the DELTA work suggested that high standards of professional training and development were provided on a continuing basis throughout the project. The interview data and high quality of the DELTA portfolio presentations served as evidence that a significant degree of teacher transformation took place during the DELTA project, however this professional development training provided no strategies for sustaining these practices in schools or in individual classrooms without the presence of a CAPE trained teaching artist or arts specialist.

- *Whole School Change*. Although the case study models provided considerable evidence of teacher transformation, they offer no evidence of sustained whole-school change. There is no suggestion in the teacher interviews that the DELTA project was embraced by the school administration at the level of policy, school resources, scheduling, or hiring practices. Whatever ability the classroom teachers possessed to sustain arts-integrated literacy in their classrooms, there is no evidence in the portfolios of change in school or district policy toward arts-integrated literacy instruction, support resources, future professional development services, or arts-integrated literacy assessment.

- *Social-Emotional Development Outcomes in the DELTA project.* Perhaps one of the most important outcomes of the DELTA project was its growing focus on social-emotional 'literacies' as a way to include every child in the arts integration units. Focus on behavior problems common to many urban elementary school classrooms surfaced in the DELTA project as a particular application and outcome of arts-integrated learning.

  As Josy Nolin reports in her portfolio, without the "emotional and social growth that [her] students underwent throughout the DELTA project," other academic and artist goals were unattainable. In the community mural project with CAPE artist Juan Carlos Perez, "the academic/literacy goals would never have been met without the progress the children made in interacting with others, including their teacher."

  For Josy Nolin and other teachers and artists, the DELTA project could not ignore the social-emotional challenges to learning that many students face.

  > **Josy Nolin**: Changing the student's mindset, their mentality, was an enormous challenge, but it was crucial to the success of this unit. The activities all revolved around cooperation and unity. The arts provided the children with opportunities to challenge and express themselves, the chance to be appreciated by others, and moments to be proud of an accomplishment.

  In the DELTA units, it appeared that social understanding was considered at first as a precursor to arts-integrated learning, but later on as an outcome of the arts-integrated units. If language arts literacy depends on creative self-expression and socially motivated communication skills, then DELTA recognized that social-emotional literacy skills must also draw on arts integration strategies. What teachers and artists report continually in the DELTA portfolios is a growing sense of self-esteem on the part of their language literacy learners in the context of problem-solving tasks in theater, visual, and musical arts. Typical of many other teachers, one teacher reports:

  > Self-confidence developed through the DELTA project—it can do wonders for a child who is struggling academically. Suddenly, a student who could never do anything "right" is no longer afraid to be wrong and is willing to try. And that is something that all good learners must do. As a result of DELTA, many of my students no longer say those dreaded

words, "I can't!"   I found this realization to be a pleasant surprise. It was not what I was expecting when we began this educational experiment.

One surprising implication for arts integration strategies for literacy is that social-emotional development is yet another 'intelligence' with its accompanying forms of literacy. At Sumner, for example, community murals were accomplished in the context of ongoing 'Word Wizard Dictionaries' that required students to illustrate words important to their own social and personal development. For example, one Word Wizard Dictionary entry below focused on the verb 'meditate' and the adjective or noun 'calm,' key concepts for building emotional self-control and the ability to 'focus.' The application of vocabulary in this case may be found in the ability use these concepts as strategies for building calm and focused learning communities.

Thus, DELTA projects connected explicitly with the social-emotional objectives of the classroom, which in turn optimized learning behaviors based on creative and reflective thinking processes inherent in the arts-integrated learning tasks.

I. Conclusion: Re-examining the Role of Arts Learning in Arts-Integrated Literacy Development

The DELTA project model defined how literacy instruction can be coupled productively through arts-integrated learning, as indicated by the artifacts, exhibits, and snapshots presented in the DELTA portfolios. The 'integrity of integrated learning' in the DELTA project was maintained by making sure that high standards of both arts and language literacy learning were maintained throughout all phases of the project. Thus, DELTA arts-integrated learning units focused on reinstating authentic and comprehensive forms of visual art, theater, dance, and music learning processes as essential components of language arts learning.

Teachers repeatedly remarked on how the students took much more ownership of the literacy curriculum through hands-on experience with creative writing, illustration, music, and mural-making tasks with guidance from both the classroom teacher and CAPE teaching artists. The DELTA portfolios provided evidence that by incorporating art-making processes into language arts instruction, students are not avoiding the tough challenges of literacy skills development. On the contrary, it appears that these students understood the purpose and meaning of arts integration as a path toward building a greater synthesis of literacies. Thus, it appears that the teaching of language arts integrated with theater, visual, and musical arts learning processes reconnects literacy skill development with its rich history of integration with multiple art forms.

For DELTA teachers, arts integration teaching, assessment and professional development experiences and their application to their classroom practices expanded their concept of literacy itself. No longer bounded by short answer paper and pencil tasks and tests, DELTA provided new opportunities for all children to expand their approach to multiple modalities of literacy skill development. The DELTA project also provided opportunities for teachers and artists to discover new ways of documenting and assessing student learning through the arts. The presentation of rich documentation of student learning in digital portfolios elevated teacher-artist collaborative teaching practices into public presentation and discourse in the DELTA professional development events.

The development of the DELTA case study models argues that opportunities for integrated forms of arts learning in public schools are essential to the understanding of a greater synthesis of multiple literacies in which each discipline is enhanced by the other. Picture making, singing, and acting out school plays are common activities in elementary schools. Regarding these activities as serious measures of understanding multiple, mutually reinforcing literacies is far less usual. Thus, 'Developing Early *Literacies* Through the Arts' seeks a higher standard for language skill development that children and teachers not only find engaging and more accessible, but also see as a more equitable approach to the goal of empowering every child with a life-long understanding and creative application of literacy skills across the curriculum.

The clearest evidence of the positive impact of the DELTA program was detected in the digital portfolio documentation and statistical results associated with schools where multiple artists collaborated with the teachers on units that invited students to explore the interconnected and mutually reinforcing aspects of theater, visual art, and music literacy skills. Songwriting, bookmaking, and mural painting provided culminating learning events that uplifted the spirits as well as the cognitive and art-making skills of the DELTA students. And, as documented in the portfolios, many DELTA teachers claimed that the positive results reported here, no matter how modest, would never have happened without the social-behavioral transformation of the learning environment due to the teacher-artist design and revised DELTA units.

The portfolio documentation of exemplary teaching practices, student work samples, and compelling teacher reflections are necessary, though not sufficient, forms of evidence for evaluating the process and impact of the DELTA project in schools. Due to the development of DELTA arts learning assessment instruments described in detail in this report, considerable statistical evidence indicated a positive change in performance and reflective understanding of arts learning skills as the project progressed. Unfortunately, there was also incomplete evidence regarding the relationship between arts learning and changes in language literacy skill achievement.

The disconnect between arts learning and narrowly defined language literacy skills was anticipated, given that measures of word fluency (words per minute) were the only standardized measure of language literacy promoted in Chicago schools and that these assessments would not likely have any connection with arts-integrated literacy processes that explore issues of creativity, meaning, and interpretation. However, the lack of thorough data collection processes prevented further investigation and the possibility of discovering that there in fact could be a positive statistical relationship between optimal conditions of arts-integrated literacy skill development and traditional standardized measures of language skill development or academic achievement.

Nonetheless, the DELTA project succeeded in building models of engaging, yet rigorous forms of literacy through the integration of arts learning projects in urban elementary schools. Teachers generally assumed that reading picture books, dramatic reading, and even singing songs have their place in literacy picture books. What they did not anticipate were the positive effects of collaborating with artists to design arts integration units that, in turn, invited students into the creative process of storytelling, illustration, and songwriting as central components of their

literacy program. While the students took enormous pride in their books, murals, and songs, the teachers noticed that arts integration changed their classroom learning culture in ways that expanded virtually every student's concept of literacy.

Thus, we have determined that when literacy teaching practices include creative processes and self-expression through multiple arts media, students will increasingly find new ways to expand their vocabulary, communication skills, and self-esteem as language literacy learners. During the model building process, DELTA teachers and artists also discovered that their content knowledge and teaching skills had expanded and that the process of co-design, co-teaching and professional development experiences had challenged their flexibility, creativity, and risk-taking skills as pioneering action researchers.

The findings of the DELTA study should challenge schools to think differently about the need to incorporate arts learning into language arts instruction as a promising strategy for deepening young students' conceptual and process-based understanding of language literacy, through which children can discover the joy of reading and writing as part of a larger concept of general symbolic literacy.

Appendix A:
DELTA Project "Crate" Documentation Checklist

DELTA PROJECT DOCUMENTATION GUIDELINES

The following items should be collected and stored in the crate and portfolios provided. These items we refer to as artifacts can be collected during the course of the DELTA Project planning, implementation, or assessment processes. All artifacts must be annotated (dated, identified by connection to curriculum, implementation or assessment aspects), and categorized as (a) modeled, (b) collaborative, or (c) independent work.

Artifacts resulting from literacy instruction and experiences:
_____Spelling, editing, vocabulary, word recognition, activities or tests
_____Self-correction reading and writing samples
_____Active Reading responses (reflections on story line, settings, characters, dialogue, genre)
_____Synopses and reflections on books read to date (in fall):
_____Oral reading samples (audio and video) (time sampled)
_____Other writing samples and/or Journal entries (time sampled)

Artifacts for arts learning instruction and experiences:
_____Visual art and creative writing samples (early and late drafts of sketches, prewriting, journaling, books, etc.)
_____For performing arts: videotape sample of early warm up activities, improvisations, rehearsals, listening, critique sessions, reflective writing, investigations of chosen questions, as well as final presentations

Videotape/Photo Artifacts, transcripts for tracing the evolution of DELTA classroom practices:
_____Arts integrated reading blocks
_____Teacher/artist interviews
_____Pre-post interviews with Case Study Students
_____Stills/Digital images of classroom practices (Classroom setting, Individual students, individual student with art piece or engaged in performing art activity)

Artifacts related to teacher professional development and related student work:
_____Student inventories, checklists
_____Student reflections and self-assessments
_____Rubrics for assigned work
_____Personal selections
_____Reflections and Artifacts from professional development or planning sessions
_____Journals

<u>Appendix B:</u>
<u>SEAL Assessment Framework</u>
(developed with guidance from the NEC Research Center)

The Snapshots of Early Arts Learning (SEAL)
Student Performance & Reflective Thinking Assessment Framework
(Developed by CAPE artists and staff with guidance from the NEC Research Center)

A. Performance Assessment: Documentation of Activities *Within* Each Art Form
Students will engage in a 45 min directed art activity. This activity, determined by the teaching artist (see following examples in four art forms), will provide opportunities to observe student ability to:

- Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning), Middle stage (creation), and End (product and outcome)
- Represent, communicate, and express own ideas through media.
- Demonstrate an understanding of materials (both the physical aspects and metaphorical potentials).
- Participate in cross-fertilization of ideas influenced by others' work (other students and other artists) and influence other students' work processes.
- Make choices from an accumulated body of artistic knowledge and effectively apply those choices.

  The activity will be photographed and videotaped for analysis.

B1. Interview Protocol (Part One): Reflections on Art and Artistic Process *Across* All Art Forms
Students will answer a series of interview questions directed towards their understanding of the art form they are engaging in with DELTA. Students will have a sample of their own work or a photograph of themselves engaged in performance available.

- What is art? (i.e. dance, music, theater, drawing, bookmaking, etc.)
- How did you make/create/perform this piece? (related to sample)
- What happens when you make a mistake?
- How do you know when you're finished/ready to perform?
- How do you tell a story through (i.e. dance, music, theater, visual art etc.)?
- What tools does a (i.e. dancer, musician, actor etc.) use?
- What can you express or show through (i.e. dance, music, theater, visual art etc.)?
- Where do your ideas come from when making art?

B2. Interview Protocol (Part Two): Reflections on Artwork of Others (*Within* Specific Art Form)
During the same interview students will respond either in writing or orally to a non-student sample artwork selected by teaching artist. The work should reflect genre or materials that students will have engaged in through DELTA.

- What is the artist trying to express?
- What questions do you have about this work?
- What questions would you ask the artist?

B3. Interview Protocol (Part Three): Reflection and Self Assessment of Student's Own Art Work (*Within* Specific Art Form)
During the final part of the interview students will reflect either orally or in writing on a their own artwork and fellow students.

- How did you construct, prepare to perform, etc. this piece?

VIII. Figure 1: The SEAL framework guided the development and assessment of arts learning tasks in the DELTA Project.

<u>Appendix C:</u>
<u>Key Criteria For Building 'Teaching For Learning Transfer</u>
<u>Strategies' Into DELTA Arts-Integrated Lesson Plans or</u>
<u>Curriculum Units: An Analytic Framework</u>
(developed by the NEC Research Center)

A. The Exploration of Fundamental Content and Processes Intrinsically Shared Between Arts and Language Literacy Learning

1. ***'Big Ideas':*** Deepening the understanding of fundamental terms, concepts, cognates and contexts such as sequence, order, composition, structure, character, color, syntax, and social context that are germane to both arts learning and language literacy skill development

2. ***Parallel Literacy Processes:*** employing specific sequential strategies or procedures embedded in reading, writing, storytelling, problem solving, critical thinking and meaning-making processes relevant that applies to both arts disciplines and language arts literacy instruction.

B. The Emphasis on Cultivating Multiple Ways of Knowing and Learning as a Strategy for Advancing Inquiry, Investigation, Discovery, and Reflection stemming from the Interconnections Between Arts Learning and Language Literacy Development

3. ***Multiple Symbol Systems:*** The learning and manipulation of similar and contrasting symbols, systems or symbolic processes drawn from and combined across visual, performing and language arts.

4. ***Multiple Representations:*** Incorporating modes of expression such as spoken language, written language, singing, clapping, gestures and/or the use of graphs, notation, etc. to represent and communicate understanding of music and music-integrated literacy skills.

5. ***Multiple Intelligences:*** Enriching arts and language literacy learning through multiple modalities of learning indigenous to musical, linguistic, logical-mathematical, visual-spatial, kinesthetic, interpersonal, and/or intrapersonal 'intelligences.'

6. ***Multiple Cognitive Processes:*** Optimizing engagement in arts and language literacy learning through a comprehensive distribution of underlying cognitive learning processes (e.g., Listen-Perceive-Describe, Inquiry-Analysis-Discovery, Imagine-Create-Transform, Demonstrate-Perform-Interpret, Assess-Reflect-Revise) that are used to widen and deepen literacy skill development and understanding in all art forms and language literacy learning.

<u>Appendix D:</u>
<u>DELTA Arts-Literacy Integration Curriculum Unit and Lesson Plan</u>
<u>Design Rating Scale</u>
(developed by the NEC Research Center)

The scoring rubric for arts-literacy integrated curriculum units below challenges the scorer to rate:

a) the presence of 'Key Criteria for Building "Teaching for Learning Transfer" into DELTA Arts-Integrated Curriculum Design' [Appendix C] in relation to
b) the level of complexity of the integration of strategies for teaching and learning transfer.

The following rubric was used to categorize lesson plans in terms of the level of complexity and richness of strategies for two-way 'teaching and learning transfer' between arts and language literacy learning:

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1   Arts instruction in the lesson plan provides no indication of intentional "teaching for transfer strategies" that explore 'big ideas' or 'parallel processes' shared between arts and language literacy learning.

1.5 There is some evidence of the intentional and strategic use of multiple symbol systems, representations, intelligences, or cognitive processes.

2   Arts instruction is interleaved or sequenced with language literacy-based activities, yet there is little or no evidence of intentional "teaching for transfer strategies" that explore 'big ideas' or 'parallel processes' shared between arts and language literacy (implicit connections across literacy discipline are possible, though not necessarily intended at this level of integration).

2.5 There is some evidence of the intentional and strategic use of multiple symbol systems, representations, intelligences, or cognitive processes.

3   There is significant presence of intentional "teaching for transfer strategies" that explore 'big ideas' or 'parallel processes' shared between arts and language literacy (literacy learning transfer is explicitly supported at numerous points of instruction).

3.5 There is high incidence of the strategic use of multiple symbol systems, representations, intelligences, or cognitive processes.

4   There is consistent and pervasive presence of intentional "teaching for transfer strategies" that explore 'big ideas' or 'parallel processes' shared between arts and language literacy (literacy learning transfer is explicitly supported expected at virtually all points of instruction).

4.5 There is high incidence of the strategic use of multiple symbol systems, representations, intelligences, or cognitive processes.

Appendix E:
Final DELTA Artist-Classroom Teacher Interview Protocol
(developed with guidance from the NEC Research Center)

I. The success of the DELTA project depended on artists and teachers collaborating together. It also depended on administrative support from the school and the CAPE staff. What is your assessment of the quality and degree of support that you received from collaborating teachers or artists, CAPE staff and professional development programs, and the school in order to succeed with the objectives of the DELTA project?

a. Please describe examples of the kind of support you received in the DELTA project (e.g. from your teacher or artist partner, colleague, principal, etc.) and what difference this support meant to the success of your work.

b. Please describe examples of the kind of support you needed but did not always receive in the DELTA project (e.g. from your teacher or artist partner, colleague, principal, etc.) and what difference this support might have meant to the success of your work.

II. The success of the DELTA project will be measured by its impact on student learning outcomes. How did the discovery and the manner of capturing these moments of learning evolved as the project proceeded. From your point of view:

a. Please give some examples of students' growth in artistic or language literacy skills that you witnessed and that you thought had everything to do with the DELTA project.

b. How were these moments of learning captured successfully (e.g. Crates, Observation, SEALS test)?

c. Please describe when a student's growth didn't meet your expectations and what could have been improved on the part of the DELTA program.

d. What were learning outcomes that surprised you?

III. To what extent did new forms of arts learning and/or arts-integrated language literacy practices develop in schools that were linked to the DELTA project?

a. Please describe some examples in the DELTA project of the most effective moments of teaching that you experienced that can be attributed to the contribution of arts literacy to language literacy development.

b. Please describe some examples of how your personal teaching practices (as a teaching artist or classroom teacher) have changed as a result of the DELTA project.

—continued—

IV. The DELTA project is also focused on the possible evolving role and impact of arts literacy instruction and documentation practices on public school classroom and whole school cultures

a. What are examples of changes in your classroom culture?

b. Discuss examples of how focusing on early literacy through arts integration affected the DELTA classroom and/or school community.

V. What has been the impact of the DELTA Project on your personal teaching practices?

a. What sort of practices related to the DELTA project became integrated with early childhood arts or language literacy skills?

b. What particular arts literacy skills lend themselves better to integration with early childhood language literacy than others? Why?

c. How has participating in the DELTA project changed the way that you think about language literacy learning when integrated with arts literacy?

d. How has participating in the DELTA project changed the way that you think about the role of arts learning when directed toward the concept of literacy?

Appendix F:
General Criteria For Evaluating SEAL Music Performance Tasks
At Robert Emmet School

Observation of Music-Language Reading and Writing Task Videoclip
Artist: Adam Busch

1. **Understand the artistic <u>process</u>: Beginning Stages (experimentation, risk taking with materials, and planning), Middle stage (creation), and End (product and outcome)**

   - Reading words to self, etc.
   - Clapping out beats to get a v
   - Trying out, starting over – Performing different iterations
   - Performing final composition

2. **Represent, communicate, and express <u>own ideas</u> through media.**

   - Use own words (not same words as other students)
   - Create original composition (including choice of words and melody) (even if it is different from what is written on board))
   - Improvise original additions or subtraction to composition
   - Add creative touches/flourishes to song and reading of it

3. **Demonstrate an understanding of <u>materials</u> (symbols), both the physical aspects and metaphorical potential.**

   - Correctly identify rhyming words from written list
   - Put rhyming words at end of sentences
   - Fit number of word syllables to number of notes
   - Fit pattern of syllables and/or words to the pattern of beat and their divisions (e.g., child clapping out beat as she goes along)
   - Fit words to pre-defined melody (pitch contour – high and low)
   - Create a composition that makes sense

4. **Participate in <u>cross-fertilization of ideas</u>—are influenced by others' work (other students and other artists) and influence other students' work processes**

   - Take ideas from other students' successes and/or failures
   - Take cues from teacher in developing work
   - Listen to or read melody to get a better sense of performance
   - Help others problem solve / contribute to others' music-making

5. **<u>Make choices from an accumulated body of artistic knowledge</u> and <u>effectively apply</u> those choices.**

   - Choose to organize rhythm by measures, beats, and tempo according to intended purpose (dance, motion, movement, image, narrative, etc.)
   - Choose to organize singing of melodic contour according to intended moods, expression, etc.
   - Make a sentence that demonstrates attention to rhythm and rhyme – the sentence rhymes and fits indicated rhythm.

Appendix G:
General Criteria For Evaluating SEAL Drama Performance Tasks
At Miles Davis Academy

Observation of Acting Exercise Video Clip
Artist: Kevin Douglas

1) Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning), Middle stage (creation), and End (product and outcome).

- Make clear choices without prolonged delay.
- Make choices to use their imagination to create their own objects.
- Make choices to use imagination to define objects in space rather than the concrete physical environment.
- Orient performance to the audience rather than to the teacher or camera.
- Are they aggressive (dismissive) in their actions in the space due to their lack of engagement?

2) Represent, communicate, and express own ideas through media.

- Make clear choices without prolonged delay (when new elements are presented).
- Make choices to use their imagination to create their own objects (when new elements are presented).
- Engage in the task rather than seek approval from the instructor.

3) Demonstrate an understanding of materials (both the physical aspects and metaphorical potential).

- Use space and place objects in the same spatial relationships.
- Use objects to scale or proportional to other objects in space.
- Follow or use detailed description to manipulate objects in the environment.
- Use objects consistent with the laws of physics.
- Use objects in manner that indicates that they have mapped the setting.
- Maintain position of objects consistently throughout manipulation (single user).

4) Participate in cross-fertilization of ideas – are influenced by others' work (other students and other artists) and influence other students work processes.

- Are influenced by peers comments and/or suggestions
- Audience displays attentive focused observation
- Use choices from other children in the same spatial relationships (when multiple choices are made, do they use any of the choices made by others?)
- Maintain position of objects throughout manipulation by multiple users.

5) Make choices from an accumulated body of artistic knowledge and effectively apply those choices.

- Make clear choices without delay (when new elements are presented).
- Use object to scale or proportional to other objects in space.
- Use space and place objects in the same spatial relationships.
- Follow or use detailed description to manipulate objects in the environment.
- Use objects consistent with the laws of physics.
- Use objects in manner that indicates that they have mapped the setting.
- Maintain position of objects consistently throughout manipulation (single user).
- Introduce a narrative component within the setting without prompting.

Note: to effectively apply question five it may be necessary to use a situation improv, or a setting improv with enough flexibility to allow the participant to introduce a narrative component.

Appendix H:
General Criteria For Evaluating SEAL Visual Arts-Bookmaking Performance Tasks At Miles Davis Academy

Including Observation of Creating a Visual Narrative for Bookmaking Video Clip
Artist: Mary Tepper

1) **Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning), Middle stage (creation), and End (product and outcome)**

   - Translate ideas from imagination to a defined space (the paper)
   - Do not hesitate when creating
   - Use unfamiliar media (ebony pencil) to aid in the creation of the narrative
   - The order the media is used when creating (uses the ebony pencil to sketch, then colors with crayon, or crayon to color and pencil for details?)
   - Clearly create a visual narrative with one main idea
   - Clearly create an original main character(s) and a setting(s)
   - Use creative abilities to interpret, organize and represent a story's sequence with a beginning, a middle, and an end in an original picture form

2) **Represent, communicate, and express own ideas through media.**

   - Express own ideas/thoughts through pictures, without using words
   - Engage in the task rather than seeking approval from others in the room
   - Use imagination to create visual narrative

3) **Demonstrate an understanding of materials (both the physical aspects and metaphorical potential).**

   - Clearly follow the steps and directions to fold and divide their papers into sections
   - Use the sections of the paper to aid in the development of story sequence
   - Develop imagery in proportion with section and paper size
   - Orient and arrange imagery in a sensible manner (along a horizon line) and maintains it throughout the story
   - Create detail imagery to represent space, motion or lapse of time

4) **Participate in cross-fertilization of ideas – are influenced by others' work (other students and other artists) and influence other students' work processes.**

   - Repeat others' imagery by viewing examples or work of immediate peers
   - Choose unfamiliar media after viewing other students working with it
   - Use of time upon completion of narrative

5) **Make choices from an accumulated body of artistic knowledge and effectively apply those choices.**

   - Develop a distinct foreground (with a character) and background (setting) for each image in their narrative
   - Use elements of art (line, color, value, texture, shape) to aid in the development of their narrative
   - Use principles of art (space, contrast, rhythm, emphasis, balance, variety, repetition) to aid in character and setting development

Appendix I:
General Criteria For Evaluating Visual Arts Performance Tasks
At Sumner Academy

Observation of Visual Art Exercise Videoclip
Artis: Juan Carlos Perez

1) Understand the artistic process: Beginning Stages (experimentation, risk taking with materials, and planning); Middle stage (creation); and End (product and outcome)

- Make clear choices without prolonged delay.
- Look to instructor for more specific direction in order to understand assignment.
- Look to others for more specific direction in order to understand assignment.
- Are they aggressive (dismissive) in their actions in the space due to their lack of engagement.
- Arrange a working space to begin.
- Arrange a formal working space in order to begin (using white paper as canvas).
- Quietly begin task at hand.
- Do not give up easily.

2) Represent, Communicate, and express own ideas through media.

- Are willing to communicate their process of putting together their visual object.
- Make focused choices and use their imagination to create their own objects.
- Are willing to consider all materials available.

3) Demonstrate an understanding of materials (both the physical aspects and metaphorical potentials).

- Are visually obvious in understanding and making clear choices in putting together their shapes.
- Are not obvious in understanding and making clear choices to put together their shapes.
- Make choices in arranging materials through the use of color.
- Make choices in arranging materials through the use of its shape.
- Are willing to combine a variety of materials to create a shape.
- Are willing to combine a variety of colors.
- Only use a particular material to create a shape.
- Visualize in 3-D form.
- Visualize only in 2-D form.
- Look to other ways of executing plan if first attempt at creating their shapes does not meet expectations.
- Continue the challenge of executing their initial attempt at creating their shape.
- After completing task (creation of shape), embellish or add to the shape to create something else.
- Comprehend and execute tasks quickly.
- Do not give up easily.
- Only stick to one color; will not take chances.

4) Participate in cross fertilization of ideas – are influenced by others' work (other students and other artists) and influence other students work processes.

- Are willing to help others achieve goal.
- Are influenced by peers comments and/or suggestions.
- Use choices from other children in the same spatial relationships (when multiple choices are made, do they use any of the choices made by others?)
- Are easily influenced by others.
- Are talkative and not willing to participate.
- Are disruptive and aggressive from the beginning of lesson.
- Are willing to share accomplishment of project with others.
- Are constantly seeking attention from others.
- Get bored easily.

5) Make choices from an accumulated body of artistic knowledge and effectively apply those choices.

- Communicate expression through the use of color.
- Communicate expression through the use of symbolism.
- Write about and critique in a constructive manner their own and other people's work; write about various lesson-related and literacy-related topics.
- Look at visual imagery and articulate a theme, plot or statement through speech or through writing.
- Put together a number of materials to convey a story, meaning or image.
- Understand the fundamental techniques and terminology in creating a picture, such as background, middle-ground, and foreground.
- Understand art terminology such as collage, pattern, symbolism, technique, expression, 2-D, 3-D, picture, image, critique and use these terms independently.

Appendix J:
SEAL Performance Task Observation Rubric for VISUAL ART
(excerpt)
(developed by NEC Research Center)

Dimensions of Arts Learning: *Ability, Skill, Knowledge, Understanding*	Indicators of Arts Learning	NR (no response) Or NA (not applicable)	Level 1 Rarely Singular Beginning Modeled	Level 2 Sometimes Multiple Developing Guided	Level 3 Often Relational Competent Peer	Level 4 Always Systemic Proficient Independent
I. Understanding the various phases of artistic process:	• Demonstrates understanding of beginning stages (experimentation, risk taking with materials, and planning); Middle stage (creation); End stage (product and outcomes). • Makes clear choice without prolonged delay. • Looks to instructor for more specific direction in order to understand phases of the assignment. • Establishes a formal working space in order to begin (e.g., using white paper as canvas). • Carefully considers the use of various media in relation to the various phases of artistic process (uses the ebony pencil to sketch, then colors with crayon, or crayon to color and pencil for details…) • Looks to other ways of executing plan if first attempt at creating their image does not meet expectations. • After completing task (creation of shape, image), the student embellishes or adds to the shape or image to create something else. • Ability to internalize what is asked of them • Ability to go beyond primary instructions and create within the specifics given. • Able to communicate the process of putting together creative work individually and collaboratively.					
II. Represent, Communicate, and express own ideas through media	• Ability to translate their idea from their imagination to defined media (e.g., the paper) • Expresses their own ideas/thoughts through media nonverbally or by combining words with other media. • Makes focused choices and uses their imagination and technical skill to create their own objects, design elements, or to convey narrative, character, etc. • Employs imaginative elements to express individuality and style • Able to consider all materials available to express ideas. • Ability to communicate (verbally) artistic choices based on personal goals and intent of the artistic process					
III. Demonstrate an understanding of materials and elements of composition	• Able to demonstrate visual understanding and clear choices in putting together their elements of design (objects, shapes, lines, colors) and their relationships to create other visual elements both abstract and representational • Makes choices through the use and combination of colors, 2D and 3D objects and/or images • Considers all available materials including unfamiliar media (conte crayon, ebony pencil) t • Demonstrates ability to manipulate and initiate creative effects through the chosen media • Creates in proportion with the materials or space available (e.g., paper size)					

Listed here are three sample scoring dimensions of arts learning excerpted from scoring rubric for visual arts SEAL performance assessments. The indicators of various categories of arts learning are grounded by specific criteria from each art form used in the DELTA project. The four-point rating scale allows for multiple criteria for scoring the level of consistency, complexity, level of expertise, and the level of scaffolding provided in the SEAL task. A Level 1 rating, for example, indicates that the student working process and products, as judged from a combination of factors, is inconsistent, oversimplified, novice and/or a highly modeled level of work; a level 4 rating indicates that the quality of artwork and process is consistent, systematic, proficient and is achieved through independent work.

Appendix K:
SEAL Interview Protocol Scoring Rubric Adaptable to All Art Disciplines
(Student Response Anchored Visual Arts Excerpt)
(developed by the NEC Research Center)

Question	*Level 1 – No Relevant Response* *(Irrelevant response, indiscernible response, or silence; Answers, "Nothing; I don't remember; I don't know," skips question; Answer does not relate to question)*	*Level 2 – Single Dimensional (Generic statements, singular perspective, no elaboration, no detail, unspecific, unfocused, diffused, lists undifferentiated elements)*	*Level 3 – Multiple Single Dimensions (Occasional detail, some elaboration or specificity, some coordination of elements)*	*Level 4 – Coordination of Dimensions (Often provides elaborative detailed statements, including elements of interpersonal insight and purpose, artistic aesthetic, and/or historical references)*	*Level 5 – Systemic Understanding (Substantial detail, specificity, causal statements, compare and contrast, critical perspective, highly complex, multiple relationships)*
1. What is art?		**LOW** **A word/statement that provides modest to no information:** • *Something you do* • *What you do when you're bored* • *Something you can hang on your wall* • *Something you do to become an artist* **HIGH** **Lists singular elements that are considered art:** • *Drawing* • *Painting* • *Coloring* • *When you make a collage* • *Shading: When you go from light to dark*	Lists and/or combines various singular statements/ideas, or describes in detail one or more methods of art: • *Drawing, painting, or when you make a collage* • *When you take a piece of paper, tear it up, and make it into something*	Simple statements about art that may imply the start of an artistic aesthetic, why one makes art, or the use of similes or metaphors: • *Drawing things that are beautiful* • *When you use your* • *imagination* • *When you paint to* • *make you happy* • *Artwork is design* • *Discovering your* • *own art*	Describes a relational statement in more detail, using contrast or providing an elaborative explanation: • *When you use your imagination instead of drawing the real thing* • *It's not about what you draw or write but about what you see*
2. How did you make/ create/ perform this piece?	• *Lists objects in the picture (Here is my bed)*	Lists one of the following in modest to no detail: • *Materials used (e.g. With construction paper; Using paint)* • *Processes employed (e.g. Cut it out of a magazine)*	**Lists several materials, processes, and/or objects together:** • *With construction paper, white paper, magazines. Using paint, colored pencils, charcoal Cut it out of a magazine, collage* • *Lists the order objects were created (e.g. First I drew the bed and then I made the carpet, etc.)*	**Describes slightly more abstract elements and how they relate:** • *Used "this" color for "this" object* • *Made "this" object by trying to copy a real object*	**Describes materials and/or abstract elements with elements of reasoning included:** • *I used this color "green" so it would match with this color "red";* • *I used wavy lines with dark color to show the energy of the person*