

**ARTS FOR ACADEMIC ACHIEVEMENT:**  
**Images of Arts Infusion in Elementary Classrooms**

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**PREPARED FOR**  
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# Executive Summary

This paper presents the findings from a longitudinal research study of the experiences and conditions in which community-based artists have been blended into everyday, on-going instruction in six Minneapolis elementary schools. Along with an earlier paper, “Arts Integration—A Vehicle for Changing Teacher Practice,” this paper substantiates and deepens what was first described by teacher participants in group interviews. The methodology for this current study utilized extensive classroom observation conducted over time.

The six schools studied were part of a larger district-wide arts integration initiative, where a total of 43 schools were involved in the Annenberg Arts for Academic Achievement Project. Within each of the six selected schools presented in this paper are individual and teams of classroom teachers who have worked with the same artist over the course of one to three years. The classroom teachers and teaching artists were observed on twenty-two different occasions by observer-researchers from CAREI over the course of a year.

## Results

The qualitative data came from three sources—classroom observations, individual interviews, and teacher and artist team interviews. The analysis and findings are organized into three broad categories of change:

- **Teacher/student interactions**—Two main findings have emerged from the analysis of the teacher and student interactions. First, having the teacher as part of the learning process in the arts-infused lessons contributed to the students’ deeper understanding that learning is a process that does not need to have age-related boundaries. The students of all age levels in the classes observed noted that they saw their teachers in a new way and that being a learner took on new dimensions. The second, and related, finding is that in the arts-infused lessons, the students and the teacher were often observed to be co-equal partners, with teacher’s ideas having no more value than the contributions from the students. Positive student self-esteem was visibly evident when they were functioning on an equal plane with their classroom teacher.
- **Student/student interactions**—Not only were the dynamics between student and teacher altered in the AAA Project, there was also clearly a positive shift, or widening of the range of possible interactions that occurred between and among the students themselves. The major areas of change we observed were as follows:
  - \*Improved communication in student learner groups—Groups stayed on task and had more relevant conversations among themselves in the arts-infused lessons.
  - \*The emergence of unlikely leaders—In every lesson observed, at least one or more students took on leadership roles who otherwise were not class leaders. This

included such children as non-English speakers, children with disabilities, and socially withdrawn students.

\*The blending of children with disabilities into their peer group—Again, in every observation, students with mild to moderate disabilities were fully integrated into the group’s activities. Their disability was easily accommodated in the group tasks and most often a casual observer would not be aware of or even notice the disability.

\*Improved student teamwork to accomplish a goal—In most observations, the students were easily able to differentiate the task among themselves in small group work during an arts-infused lesson. Little duplication of effort was observed because the lesson generally had a wide range of options for individual input into the group’s product.

- **Revised pedagogy** (teacher instructional behavior) **and curriculum**—Compared with previous lessons, there was greater emphasis for the students on their idea formulation, planning, flow of thought, and completeness of product. There was also much greater use of and emphasis on revision and improvement of student work products. The concept and practical usefulness of “critique” was understood among the students. There was greater freedom for the learner to deviate from a narrow expectation or a single answer. Teachers often used their classroom space differently during arts instruction, which led to using those alternative room arrangements during non-arts lessons as well. Much greater use was made of “unusual” materials during instruction. Arts lessons often had a “warm-up” segment at the start of the lesson to ready the learners for expanded thinking and to engage their interest; non-arts lessons often do not have such an anticipatory feature, but teachers reported their interest in having more “warm-up” instruction for their other lessons. Risk-taking was supported, indeed encouraged. Self-censoring was clearly reduced the longer the artist, the students, and the teacher worked together.

## Summary

The Arts for Academic Achievement Project clearly has had profound impact upon the teachers who have come to infuse the arts into the regular curriculum. Not only has the quality of arts education and non-arts education been improved, teachers have become increasingly aware of what this has done for student engagement and its potential for improved student achievement. The systematic observations and on-site interviews for this study have documented that deep change has happened in teaching and learning in the classrooms where the AAA Project has been initiated.

# Introduction

*“If knowledge can be said to accumulate, its growth in both education and in the other social sciences is more horizontal than vertical. By horizontal I mean that what we generate through inquiry into educational matters are ideas that contribute to the development or refinement of conceptual frameworks, perspectives, or metaphors through which the world is viewed....This view regards as mistaken the expectation that there can be single theory that unifies the social sciences or a single language that will do what a multiplicity of tongues cannot achieve. Paradigm plurality is worrisome to some. Yet what could be more enslaving than having to use one framework, one language, one set of criteria for appraising everything? I believe the world profits when there is more than one drummer to whom scholars and teachers with different aptitudes, values, and interests can listen.”*  
(Eisner, 1991, p.210-211)

The quotation above exemplifies, in many ways, the essential intent and outcomes for participants in the Annenberg Arts for Academic Achievement (AAA) Project. Hundreds of teachers and thousands of students in the Minneapolis Public School District have shared in the varied learning and growth fostered by participation in the AAA Project. To help tell the story and to fully understand the impact, the Minneapolis district engaged the Center for Applied Research and Educational Improvement (CAREI) at the University of Minnesota. Over the past three years of the project, CAREI has conducted interviews, sent out written surveys, examined student achievement data, all in a combined effort to assess how or if the AAA Project has transformed teaching and learning in Minneapolis schools.

An earlier paper summarized the findings from group interviews conducted with teachers over the course of three years (see Werner and Freeman, “Arts Integration—A Vehicle for Changing Teacher Practice”). For those interviews, the teachers and artists provided self-report about what they had learned and accomplished. This current paper deepens the findings from the Project because it presents the **observed** experiences and conditions in which community-based artists have been blended into everyday, on-going instruction in six Minneapolis elementary schools. Taken together, the two papers portray a picture that was first described by teacher participants and is now verified through extended classroom observation.

The six schools being studied are part of a larger district-wide arts integration initiative, where a total of 43 schools were involved in this reform effort. Within each of the six selected schools presented in this paper are individual and teams of classroom teachers who have worked with the same artist over the course of one to three years. Teachers in each of the six elementary schools had control over whom they chose to be their “artist-

partners” and how and when they would integrate those lessons into the regular curriculum. The art form practiced by the artists ranged from theater to book arts to music, with the artist and the classroom teacher in a partnership spanning several months to a year or more.

## **Data-Gathering Methods**

The classroom teachers and teaching artists were observed on twenty-two occasions by observer-researchers from CAREI. Having repeated observations where the teacher, the artist, and the students remained constant for a period of time, up to a year, enabled the observations to take on an air of legitimacy. Valid research in schools examining the evolution of changes in classroom practices is best served when the same observer(s) spend(s) time in the same classrooms. Thus, all three types of participants being observed—the students, the teacher, and the teaching artist—tended to habituate to the presence of an observer and a realistic picture emerged from the data.

In addition to classroom observations for this particular study, CAREI staff also conducted both individual and joint interviews with the teacher and the artist before and after each lesson. During the interview preceding the lesson, questions such as “What is/are the goal(s) of today’s lesson? Is there a particular curriculum standard or learning area that is targeted within that goal? How does this lesson fit into previous lessons in terms of content and approach?” These questions are aligned with one of the goals of the Arts for Academic Achievement (AAA) Project which sought to determine the effect of arts-infused curriculum upon student achievement.

For previous papers, a different set of data was obtained from teachers in all of the schools in the AAA Project through the use of annual group interviews. Organized by school, teams of teachers and artists came to an hour-long focused interview each spring over a three-year period. During the interview, the researcher as group leader explored with them their experiences, concerns, and new learnings as a result of participation in the project. The interviews were audio-taped and transcribed, with the transcripts being made available to the teachers and the researchers interested in the dynamics of each school’s perceptions. Those transcripts served to focus the research questions of the current study and helped to identify the areas in which we wanted to collect observational data.

## Results

Analysis of the data from the three sources—observations, individual interviews, and team interviews—has provided a detailed and rich picture of the changes that have occurred in the project. Specifically, the findings from ongoing observations and interviews in ten different classrooms in six schools over the course of three years can be organized into three broad categories of change:

- Teacher/student interactions
- Student/student interactions
- Revised pedagogy (teacher instructional behavior) and curriculum

Additional analysis looked at the amount of time an individual school had been in the Arts for Academic Achievement Project. The relationship between the duration in the Project and the depth with which arts have been embedded in their curriculum was examined. These findings will be discussed later in this section as well.

### Teacher/Student Interactions

An enduring characteristic of teachers is the perception that the teacher is the “holder of the truth” and the “dispenser of knowledge.” Historically, teachers have been accorded a high position on the hierarchical ladder of learning, and where the student will always be found on a lower rung, simply by virtue of his/her age and limited past background experience. Aphorisms attributed to this dynamic include such phrases as, “Knowledge is power” and “Adults know best.”

By the same token, students have been portrayed as empty vessels to be filled with truths and knowledge. Their lack of information and naïve perceptions of what is “true” or “real” lend credibility to the distinctions drawn between teacher and student. A lack of knowledge is taken as a sign of vulnerability. Students, lacking complete information, often are seen and see themselves as being vulnerable.

This arcane and long-held differentiation between teacher and student still operates in most classrooms today. The assumption and belief held by teachers that they already possess the necessary information and skills can easily deter or inhibit a teacher when he or she is asked to try out new instructional techniques. Generally, role expectations generally have not, in the past, allowed teachers to become overt learners, side-by-side, along with their students. For example, a sixth-grade student blurted out after a lesson with an artist, “*Wow, it was really fun to not have our teacher up front all the time!*” Later, the teacher commented by saying, “*It improves interaction between teachers and students...seeing that other people in the community can teach, too, and that they can learn things from people who aren’t their teachers.*”

That condition appears to have changed in many of the classrooms where arts-infused lessons involving teachers, students, and artists occur. In the classrooms we observed,

where the teacher was engaged in the learning process alongside his/her pupils, the hierarchical divide between teacher and student often disappeared.

Two main findings have emerged from the analysis of the teacher and student interactions. The first has to do with the students now observing their teacher as a learner—just as they are. In many of the classrooms where we observed, the teacher was clearly located within the student group, all of whom were learners with the artist. Still, the boundaries of the adult having final control over the classroom never really vanished, but it was clear that planning and participation by the teacher enabled the boundaries to be less rigid.

The second, and related finding, is that together the students and the teacher were often observed to be co-equal partners in expressing ideas, making creative suggestions and providing feedback to each other. The teacher's ideas were no more valued than were the contributions from the students. Often the children suggested the more creative way to develop or further the artistic task, and students often appeared proud and validated that their ideas prevailed over the suggestions from the teacher.

On-going observations of the same classrooms of students, teachers and artists revealed that the dynamic between teacher and student was being affected over time by the immersion of an artist and arts-based lessons into the classroom. For instance, this was noted in the reactions of the children when their teacher attempted to do what the artist was asking of the entire group—“*Jump three and a half times*”, “*Use your voice to sound like a scared mouse*”, “*Move your body like gravity is very strong.*” In the early lessons we observed, the children often looked with surprise at the teacher's actions before following the directions themselves. In later lessons, we saw teachers and students reacting and interacting as though they were all learners, with no apparent regard for status or embarrassment for taking a risk to look foolish or uninformed. This transformation became increasingly commonplace as the artist spent more and more time working with that teacher.

When asked about the working relationship with the artist, a teacher replied, “*I think we work well as a team. Since this is my second year working with him, I feel more comfortable with this style. I know better when to step in and say something as part of the lesson. Last year it was more touch and go for when I felt I could jump into the actual lesson and not just assist the kids.*”

Another team of an artist and a classroom teacher explained,

“*This is our second complete year of working together. Between us we have many years of working with kids, so we pretty much know what will work and what will not work. We seldom have something that really bombs, do we?*” [Teacher asks this of the artist. The artist shakes her head ‘No.’] *I think that one thing that [name of artist] and I have in common is we're searchers and we don't stop learning. We're always taking classes and reading things and trying to figure out how we can put it into our program.*”

The teacher in this duo went on to explain how work in theater arts has changed her and her students' views of risk-taking:



*“The being able to put yourself into somebody else’s character and working it out, which takes a lot of the fear away—‘If I can be somebody else—I can do most anything’. That’s what we’re teaching these kids...my kids will try anything. They are absolutely fearless.”*

The artist concluded these thoughts with the following view of how it must be for the children:

*“In my art form, there’s this collaborative, generous, invested-in-the-other-person-in-the-room way that we’re encouraged to work to be successful theater artists. That attitude—you can bring that into the classroom. That’s the coolest thing. The kids are like ‘Oh, yeah, you treat me like a human being! Wow! ‘...It’s an absolute outgrowth of the way in which I was trained to work as an artist.”*

In another observation, early in the year, an artist and a teacher were team-teaching a lesson designed to help students develop oral storytelling skills. The teacher was fully participating with the students, sitting on the floor in a circle with them. The artist asked each participant to add a new sentence to the spontaneous creation of the story. . When it came to the turn for the teacher, she provided some dialogue. To that, the artist asked her to say it again, this time in the voice of the character she was portraying. The students watched with fascination the fact that the teacher was asked to modify her contribution—but the teacher did so without any embarrassment or pause. Then, when the artist next asked a student to expand a contribution, the student reacted without hesitation, modeling the reaction he had seen in the teacher. Later the artist and teacher were asked if this had been planned. Their answer was that, in this particular case, it had not been pre-arranged. However, they knew that this was an effective way of teaching being a risk-taker because they had pre-planned similar moments in lessons done during last year’s partnership. They had discovered the power of having the students see the teacher as a learner, and felt that it had set a tone in the classroom that allowed all participants to feel comfortable with requests to modify their contribution in some way.

During the interview with the teacher after the lesson was over, the teacher pointed out,

*“It’s great having him [the artist] in my room. Teaching can be very lonely at times and he shares many wonderful moments with me when we are with the kids. He brings a totally different kind of teaching and interacting with the children than how I do things. I think it is really good for some kids who probably interact more freely and actually better with him than with me. Also, when he is leading the class, it gives me an opportunity to observe my students more objectively, like from a distance. I see things in them that I otherwise wouldn’t see.”*

Having the teacher become an active part of the learning process with the artist in the room seemed to be a key for the best possible learning outcomes for the students. When the teacher was observed not to be an active participant, the artists, in particular, noted that the lesson would have been better had the teacher been involved:

*“The teacher was always present in the room, but if there had there been some team-teaching, I probably would not be so tired and the kids would have had a better instructional environment....I think my sessions with kids go better when*

*teachers participate with the students. It gives my stuff legitimacy, and the kids pay excellent attention when the teacher does an activity [with them].”*

Observations in the classrooms supported this perception. During a puppetry lesson, a classroom teacher was present in the back of the room, correcting papers. Occasionally, the teacher would say the name of a child who was momentarily not being cooperative, and then return to his grading. When the artist called for the class to form five small groups of three with a task to practice movement of the puppets, one of the groups was non-functional. The other four groups were only moderately on-task, and none of the groups were actually practicing with any real effort or creativity. The classroom teacher observed this, put aside the papers and began to move about the groups, helping them with synchronizing dialogue and movement.

There was a clear and observable shift in the students' attention to the task and their trying out new and different voices and moves once the teacher became part of the exercise. Across the room, the various groups could see both the teacher and the artist doing similar things, changing voices and acting in the characters of the different puppets. The students became much more focused, creative, and immersed in the task with the teacher and the artist working as a team. In a sense, any self-consciousness on the part of the students disappeared when all of the class membership (including the teacher) participated.

Similar findings emerged from other observations in various classrooms in the other five schools. In one case, the art form was dance and the artist had the children moving in ways that would replicate fractions of a movement or parts of a whole. At first the teacher just watched from the sidelines. This was the first year of the partnership between this artist and teacher and each seemed a little tentative around the other, not wanting to interfere or invade the other's "turf". The students clearly did not understand the directions or the mathematical relationships that they were physically exploring. The teacher entered the group lesson by helping out one particular child. The rest of the class looked curiously at the teacher as he slid his feet in proportion to the task of whole and half. Once the teacher became part of the experience, the lesson proceeded remarkably better and the movements of the students were less random, demonstrating that they were truly understanding the task and the link to learning fractional parts of a whole. At the end of the lesson, the class, the teacher, and the artist were all smiling and exuberant for having shared a wonderful time of physically exploring an otherwise rather inert concept.

## Student/Student Interactions

Not only were the dynamics between student and teacher altered in the AAA Project, there was also clearly a positive shift, or widening, of the range of possible interactions that occurred between and among the students themselves. The major areas of change we observed were as follows:

- Improved communication in groups
- The emergence of unlikely leaders
- The blending of children with disabilities into their peer group
- Improved student teamwork to accomplish a goal

Often several of these characteristics were occurring simultaneously, and they tended to be more frequent and include more students as the year and the exposure to the arts-infused curriculum progressed.

Improved communication among students during a group activity was evident and noted by both the classroom teachers and the CAREI observers. According to the teachers, the conversations among students were more meaningful and focused than before. Prior to the AAA project, group work was often assigned with the expectation that the group “discuss” something or together find an answer to a problem. In contrast, in a small group task for an arts-infused lesson, *“It’s not the type of thing when they have to sit and have a direct answer. Art is more, well, ‘This is my work.’ There’s no wrong answer in creation.”* As another teacher noted, *“There’s a different quality in interactions [among the students]. There’s more intimacy, there’s more humor, when the arts are involved.”*

A teacher of a special education classroom echoed similar views about the benefits of an arts component when assigning group work:

*“Now, these kids, you saw them playing. They’re parallel players—like three year olds. There [usually] isn’t a lot of interaction going on....But that was a huge leap for them today. From parallel performance of a simple activity to almost telling a story as a group....For them to be able to interact with one another is really a big thing.”*

When unlikely leaders emerged during an arts-infused lesson, it often was the child who had been perceived by peers and the teacher as generally a non-participant in class work. Such non-participation ranged from being extremely quiet and withdrawn to acting out behaviors that often exceeded the norm. As one teacher commented about his peers during mid-year interviews,

*“Teachers were surprised at how the leadership of students shifted, so that students who were always at the top of the class may not be leading when it came to the arts exercise. And students who were lower in the leadership terminology or whatever—the kids who weren’t at the top of the class in leadership—suddenly rose to that level when we started doing arts.”*

Classroom observations and follow-up interviews with the teachers after the lessons revealed this phenomenon in every school. Teachers were continually amazed at what

they discovered or learned about the children in their classrooms, particularly as high energy kids positively channeled that energy into a physical demonstration of what they were learning. Teachers began to develop a larger view of the capacity for leadership among their pupils. For instance, we saw a third-grader who popped out of his seat literally about every 30 seconds, giving his input and tending to everybody else's business around him but his own. In the arts-infused lesson, where continuity of a story line and the use of props were the tasks of the day, he was put "in charge" of the script and the readying of props for each scene. He was brilliant in keeping the story in mind, and in gently reminding his peers of when they entered and what they needed as a prop. After the rehearsal concluded, the students critiqued their work that day, and several children noted the helpfulness of this boy. They thought he was essential for doing a good job, and, for once, the child who normally was always up and about was sitting quietly, taking in every good word that was being said about him. Afterward, the teacher said, "*Today I have seen [child's name] in a whole new light.*"

In another interview, a fifth grade teacher recalled,

*"A student of mine had been in EBD [special education] because he was basically almost reclusive...but when I saw him the next year in this music group, I almost didn't recognize him because his presence had changed so much. He was actually in the performance which, to me, was kind of amazing, that he would get into such a public, high-profile, risk-taking activity, in a way. So that kind of result, I thought...was, to me, very impressive."*

Often, during arts-infused lessons, children with disabilities were fully integrated into the activity. This occurred because the arts provided multiple opportunities or spaces for each child to find or experience something that felt "do-able". Arts-infused lessons generally have many things happening at once, which enables input to be individualistic, while still contributing to the whole. The concept of teamwork and the inclusion of handicapped peers appeared in many classrooms that we observed.

An extraordinary example of this occurred during a class observation of a storytelling lesson. The third grade class of 15 was divided into three groups, with five students in each group. For weeks, the class had been studying dialogue as a means of moving the plot forward. The groups were given a one-sentence prompt, and from there, were to develop a story with dialogue. This was a long lesson, in which the groups brainstormed, then returned to their desks for individual writing, and then back to their small groups for more collaboration, and then to their seats for more writing. Each segment of this lesson sought a refinement of what they had just been working on—the brainstorming led to the writing, and the writing led to more brainstorming and discussion.

At the end of 90 minutes, each group then performed their "story" for the rest of the class. In one of the three groups, there was a student who had just arrived from another country and spoke no English whatsoever and another child who was constantly in motion. In the second group, there were two more children with extremely limited English skills. The third group had among its membership, a student with cerebral palsy and another child who was selectively mute.. More than a third of this class was

comprised of children with special learning needs, and yet, during the “performances” those differences and possible difficulties were virtually non-existent.

The two students with limited English proficiency were quietly prompted by their storytelling colleagues if they got “stuck”, and they spoke their lines as though this was their native tongue. The newly arrived immigrant child had a non-speaking part, where she pretended to “fly” around the setting, touching people with her magic wand. She clearly understood what she was doing—this kind of fairy-tale action is likely to be found in the children’s stories of any culture. We saw an otherwise reticent child smiling with utter happiness, as she was, at that moment, not an outsider in any way. In the third group, the selectively mute child pretended to be a growing tree. Her peers did not ask or expect that she would have a speaking part, but they clearly cared for her, and wanted her to have a meaningful role in the story. This planning was clear in watching the small group interact. The child with cerebral palsy had both a speaking and a moving part. His speech was very labored and his movements were often out of control, but he played the lead part in their story. He was the hero and clearly showed no sign of self-consciousness in his performance.

At the end of all three “performances”, the teacher and artist asked the students to critique themselves. Those who were the “watchers” in the audience were asked to say one thing good about the performance or the story and to say one thing that would make it better the next time. It was amazing to listen to the accuracy and the depth of the comments that the students had to make about each other’s efforts. The positive comments were appropriate and showed that they were aware of what they personally found appealing. The constructive criticism was equally thoughtful and was “right on the button” for what would make the effort better were they to do this performance again. At the very end of the lesson, the teacher asked if any of the students wanted to comment about how they felt about the experience. The child with cerebral palsy raised his hand and said in halting speech, *“I want to be an actor when I grow up. I like this!”* The teacher, the artist, and the two observers all caught each other’s glances at that moment when that was said—we knew that the lesson had been transformative for us as well as for the children.

## **Changes in Pedagogy and Curriculum**

From the past three years of observations and interviews, there is a growing body of evidence from teachers about how involvement in arts-infused lessons has altered the way they teach and how it has enhanced curriculum. Historically, teachers have tended to teach in isolation, where interaction with one another about instruction often only occurs during a grade-level meeting or a curriculum meeting.

*“It probably depends a lot on the teacher and on the team” began one teacher.*

*“My team isn’t as flexible in their curriculum as some teams are apt be to...But, I know that it [arts-infusion] has opened the door for other teams to think about all the cross-curricular things.”*

Another teacher continued,

*“That whole culture that the arts helps to create is one of flexibility, one of openness—because often, teaching in a classroom is such an isolating experience. When we’re sharing what’s happening in the classroom about the arts, it opens up a whole other way of just relating to other teachers.”*

In a different interview, the comments resonated on a similar note,

*“If you don’t have this opportunity to teach like we have, then you don’t see it, and you don’t get it, and you can’t convince anyone that it’s good for kids unless they’ve been almost immersed, thrown into this situation or process.”*

During an interview, a teacher spoke of the integration of the arts now becoming almost second-nature:

*“I think that [doing arts infused curriculum] goes to the question of affecting teacher practice. Integration is like a ‘domino effect’...it works across disciplines. Once you have taken the time or been given the opportunity to be involved in a program like this, to actually do it, reflect on it, see it, assess it—what it’s doing for your kids, what they’re doing because of it, all of a sudden thinking in totally different terms, in more multi-dimensional ways to integrate—that’s sort of how you start thinking. It’s like you learn another language and then you have dreams in that other language. Now we don’t plan without thinking about ways that it’s integrated. So, that’s how it’s kind of impacted our teaching.”*

Actual changes in instructional behavior are also being reported by many teachers.

*“I find that when integrating the arts, I am doing fewer and fewer worksheets as I get more and more comfortable. You know I have been teaching a long time, and when I started teaching, it was like ‘Oh, I have to do all of those worksheets that came with the reading.’ Now, it’s more, ‘What can I do with movement first to get to those skills with out having to sit down and do a worksheet?’...I don’t feel I have to do all of them because they can learn through other means—through the arts. It is the same skill, ...but the process to get there can be different.”*

Even arts education teachers have noted that infusing the arts and a content area is helping them to teach the arts, just as much as the arts are helping to teach a subject area:

*“It’s changed how I teach. I couldn’t teach some of my music concepts without blending it with science, especially the concept of theme & variation—the kids see the music variations as an ‘experiment’ and are excited by this...And, now that I know I can blend 1/16<sup>th</sup> notes, 1/8<sup>th</sup> notes, and 1/4 notes with math fractions study, it’s easier teaching and faster learning, and now sometimes I have moments of additional time!”*

The interaction between the arts-infused instruction and curriculum standards was noted by this fifth grade classroom teacher:

*“Another thing that has changed is how we view the standards...so we are truly integrating the arts standards and the academic standards, instead of using one to teach the other, and diminishing one. They are on equal footing now.”*

There is a strong belief among many, if not most, of the several hundred teachers who have been actively engaged in the Arts for Academic Achievement Project, that the infusion of the arts into curriculum has significantly and positively affected student learning, as gauged by student performance. CAREI observers and interviewers have heard numerous anecdotes about improved outcomes for students since they began using arts-infused teaching. A teacher recalled an arts residency done five years ago and compared it to what had happened more recently with AAA and the more explicit, purposeful integration of the arts into the regular curriculum:

*“The output of what the kids came up with...was so different from what kids present now. It’s a similar but deeper process. The kids are more directed, they’re coming up with much more detailed stories, their presentation skills are just honed. And so there’s a greater sense that they understand the artistic process, they understand creating a concept, working it out, refining it, working with their peers. It’s just so easy to see that, when you think back five years.”*

A teacher of special education students described her new-found willingness to infuse the arts into many more and different lessons:

*“We don’t do anything just for entertainment value. I wouldn’t waste the hour, if that’s what it was...because I have much more pressing needs with these children. I sacrifice an hour [each week] of reading to have her [the artist] with me, because I feel it’s that important and that they’re learning that much. We’re teaching them in a non-traditional way the skills they need to be successful. Even if they never learn to read a lick, they need to be able to live in our society, and they need to be able to reason, to listen, to problem solve in ways that are non-violent, to work interdependently. Things like this. I feel like it’s a very valuable hour we spend with the kids [doing the arts].”*

Diverse forms of evidence of improved student performance is noted by many teachers. A sampling of what teachers have had to say during interviews and in post-observation conversations includes:

*“I have seen the growth in kids’ writing a lot. I think, in my classroom, since I have tracked it this year, I have seen tremendous growth.” [Previously] I would only expect my students to get 5 or 10 sentences by the end of the year, but [now] they are cranking out paragraphs and stories.”*

*“Our objective in the fifth grade was to use the integration of our science kit, balance and motion [with dance]. The kids have used the vocabulary in what they are writing, they have talked about what they have learned...and then we’ve got pictures that show the performance at the end, that they are showing the concepts of balance, stable, point, rotation, spinning, linear motion, etc.”*

*“I use the [Visual Thinking Strategies] questions with music listening all the time...and I have found it really draws the kids so much deeper into music....They*

*are really listening for the details in their music, with just those three questions; and I couldn't find it in all those years I taught before."*

*"We were in sixth grade math, looking at some math charts, data sets, on the board. In my first experience with the thinking strategies [VTS], I felt like, 'These kids are on it!' They can make such valid points, and they can back up their points. They're good about saying exactly why [they see what they see] and they are good at supporting or rejecting other people's ideas, without rejecting the person."*

*"I have kids who were writing one and two sentences, and now they are writing three, four, five paragraphs in the classroom, because [the artist] is there and she gets them excited about writing. These are third-graders and they are writing full stories."*

As teachers spoke about their collaboration with artists, they noted the development of collaborative skills on both sides:

*"We look at what's gone well with the partnerships, what's gone well with the collaborations with the teachers. We have trust, as a team, that we can say what it is that needs to be said and we build upon the weaknesses and we improve our weaknesses by building upon our strengths."*

*"And I think we've learned planning, planning, planning, planning—that is just as important. It took maybe a minute or two to figure that out, but now that's a must."*

*"We are much more comfortable with this whole process and more willing able to articulate what we, as teachers, need from a collaboration. And, the artists are willing to step forward and say, 'These are the skills that I want the kids to learn.' I think there's a more solid base that we can build on."*

## **Overall Findings**

When the data are brought together from all of the classroom observations, individual and group interviews, and observations of planning meetings between teacher(s) and artist findings emerge across sites and have persisted over time. They are not grade-level specific, nor are they linked to any single sub-population of students. The following list describes the changes that have taken place in teaching practice (pedagogy), lesson construction, and curriculum development within the sample of the six schools that were closely investigated in order to generate this report:

- Greater emphasis is present for the students on their idea formulation, planning, flow of thought, and completeness of product.
- There is much greater use of and emphasis on revision and improvement of student work products. With artists, and now classroom teachers, students are



expected to understand the concepts of iteration and development in a piece of work.

- The concept of “critique” is often present—students know what a critique is and how valuable it can be in order to improve something, without having a negative or unfair connotation associated with the suggestions.
- There is greater freedom for the learner to be “right”, by being given “permission” in the creative process to deviate from a narrow expectation or a single answer.
- Teachers often use their classroom space differently during arts instruction, which leads to re-using those alternative room arrangements during non-arts lessons.
- Much greater use is made of “unusual” materials during instruction. Teaching math, science, language arts, etc. with objects or teaching tools generally not associated with that subject area was often seen (e.g., use of a dance video during a math lesson, use of a “talking stick” during language arts, use of a balance beam during a science lesson, etc.).
- Arts lessons often have a “warm-up” segment at the start of the lesson to ready the learners for expanded thinking and to engage their interest; non-arts lessons often do not have such an anticipatory feature.
- Risk-taking is supported, indeed encouraged, so that the students don’t feel “stupid” [their words] as often. Self-censoring is clearly reduced the longer the artist, the students, and the teacher work together.

Over the course of repeated observations, there appeared to be certain conditions or behaviors which enabled the artist to achieve the greatest possible positive outcomes with the students:

- The artist knows the students’ names. Much greater student engagement in the task was observed to take place when the artist could call upon each student by name.
- The teacher participates with the students as the artist leads the lesson.
- Small group formation needs to be guided by the classroom teacher. Ad hoc groups of students often didn’t work well together. The teacher knows which students need to be grouped together in order to avoid acting-out behaviors or having groups form where there is no student leader (e.g., where all students are non-English speakers).
- The artist has clear in his or her mind what is “acceptable” input from the students. Most successful artists have flexible boundaries of what is desired in a task, but the boundaries must be there, nevertheless.

- There was a de-briefing between the artist and the teacher after the lesson, even if only for a few minutes. This led to enhancement of the next lesson and gave the teacher ideas of how to do better follow-up in the intervening period.

Finally, when teachers were asked about the effects of becoming involved in the AAA Project, they were both effusive and introspective about its impact. They found that they themselves had begun to change, along with what has been seen among the students,

*“I think arts-infused lessons allow you to think outside the box and that we are all given permission to do that and are reinforced in creative projects that we have. So I think that just feeling that that’s part of who we are is an incredibly strong place to be.”*

*“Enthusiasm is contagious, and I think that we’ve seen that in our teachers.... You should just see it when we’re at those staff development meetings and those teachers just sit there and they go, ‘Oh, my gosh. I never thought of that,’ or ‘That is so cool,’ or ‘We could do that tomorrow,’ and they’re over here planning. It’s really a proud, exciting thing.”*

*“There are always new insights. We learn new things every week about it. One thing impacting teachers and kids that we’ve found through our action research is that nothing is going to be changed or impacted significantly unless teachers change.”*

## Theoretical Context

It is important to place the data-gathering activities and the observed changes in teacher practices and student learning within a theoretical context. One needs to be aware of past research findings which provide a frame for a more full understanding of the phenomena that we have observed. In other words, are our methods and results supported in the literature on school change and instructional reform? .

The methodology for this study centered on classroom observations and interviews with both the teachers and the artists. Essentially every classroom was an individual case within a case-study research methodology. As Lee Shulman said , “every case is a case of something, just as every sample—whether random or not—is a sample of something. If we learn something about a case that we did not know at the outset of the study, not only have we achieved consciousness of that quality or feature, but also we learn to look for that quality or feature in other places” (in Eisner, 1991, p. 207). Thus, the extensive data from observations and conversations that have been collected in multiple classrooms over time have a degree of veracity that is highly reliable. We observed certain behaviors and outcomes in the teachers, the students, and the artists that began to

be commonplace or, at times, universal, in the twenty-four classroom visits that were made by CAREI research staff.

In *The Passionate Teacher*, by Robert Fried, the author studied exemplary teaching practices. In describing the teachers, who by all measures were noted as outstanding, he wrote, “What impresses me about such teachers is that no particular set of teaching tricks or topics, much less a common personality type, epitomizes them. As individual as they are, what unites them are some ways they approach the mission of teaching; they organize their curricula and their daily work with students in practical ways that play to those different strengths (p. 23).” From what we observed in arts- infused lessons, there was clearly an array of teaching strategies in nearly every lesson—the lessons were generally a combination of visual, auditory, tactile, and kinesthetic teaching approaches, where the students were reading, writing, listening, speaking, and moving regardless of the content area. As observers, we could clearly see the differences in the learning preferences of the students, where each of them showed a greater facility with one or more of those teaching and learning modalities.

Fried goes on to say, “Passionate teachers *convey their passion* to novice learners—their students—*by acting as partners in learning*, rather than as ‘experts in the field [italics in the original].’ As partners, they invite less experienced learners to search for knowledge and insightful experiences, and they build confidence and competence among students who might otherwise choose to sit back and watch their teacher do and say interesting things (p. 23).” One of the significant findings from the study of AAA classrooms was that the most profound changes in teaching and learning occurred in classrooms where the teacher was seen by the students as equal in learning. Essentially, the teachers were taking a risk, being novice learners, alongside their students. Risk-taking for learning is something new, and was seen by students as normal, safe, and even enjoyable!

Roland Barth, in *Learning By Heart* (2001), examined what is needed to reform schools in order to meet society’s changing needs. “Why is a culture of risk-taking so crucial to schools of the twenty-first century? Because human learning is most profound, most transformative, and most enduring when two conditions are present: when we take risks and when a safety strap or belaying line supports us when we fall, so that we don’t get killed....There is growth and learning in failure....A failure experience becomes an especially good teacher when accompanied by observation, reflection, conversation, and efforts to make sense of the failure: So what happened? What did you learn from this experience? If you had it to do over again, how would you do it differently? How might you get help?” (p. 188). Time after time, during the AAA classroom observations we saw this. Teachers asked their students those very questions. The risks that the students took in attempting to learn basic concepts in a subject area such as math, science, reading or social studies were processed in such a way that, whatever the outcome, the experience of acquiring new knowledge for each student was as important as understanding the factual concept at the heart of the lesson.

Furthermore, the researchers observed the teachers and their artist-partners asking themselves those same questions during de-briefing sessions at the conclusion of most lessons. For teachers, the “safety strap” was the presence of the artist. For the artists, the

“safety strap” was the presence of the teacher. The difference in the processing that occurred between those two is that artists, by nature of their craft, were clearly more comfortable with risk-taking than were the classroom teachers. However, as the observations continued in the same rooms over time, the researchers heard discussions and saw evidence revealing the teachers’ greater comfort levels with the risks of infusing the arts into regular curriculum. Each asked the other those four important reflective questions and the self-revelations promoted sustained growth in both the teachers and the artists. To understand the phenomena involved in partnerships, Day (1999) asserts that “developmental partnerships will often begin with the cultures of ‘contrived collegiality’ typical of *implementational* partnerships, but they have a greater learning potential because the ownership of the theme and process is controlled by the participants themselves” (p. 152).

A theorist who writes with conviction about the power of the imagination in learning is Maxine Greene. When traditional school subject areas are approached in new ways, as one can do with the arts, “imagination creates new order as it brings ‘the severed parts together’ (Woolf, 1976, p. 72, cited in Greene, 1995) connecting human consciousness and works of visual art, literature, music, and dance....Once we do away with habitual separations of the subjective from the objective...we might be able to give imagination its proper importance and grasp what it means to place imagination at the core of understanding” (Greene, p. 140). Greene asserts that “the point of enabling our students to both engage in art as a maker and experience existing artworks is to release them to be more fully present....The ends in view are multiple, but they surely include the stimulation of imagination and perception, a sensitivity to various modes of seeing and sense making, and a grounding in the situations of lived life” (p. 138).

The students whom we observed to be engaged in art-making were simultaneously engaged in sense-making. They were connecting the arts experiences of the moment with learning a math algorithm, or a scientific precept, or a concept about social justice, for example. The abstract, for them, became grounded in experience and it built upon what they already sensed or knew. This is constructivist teaching and learning in its most concrete application. “There is no information or knowledge to be taken in or absorbed by empty consciousness. We can only attend from our own interpretive communities” (Greene, p. 119).

The teachers involved in the Arts for Academic Achievement Project were learning new ways of teaching at the same time their students were engaged in learning subject-matter content in new ways. Staff development for AAA teachers happened not only as they worked with their artist-partners, but also as they conferred with each other. The CAREI researchers observed many team meetings of teachers. In those small group settings, the teachers deliberated goals and ideas, discussed outcomes, and developed modified plans for instruction. In researching effective staff development, Bruce Joyce and colleagues (1999) found common characteristics among the most effective staff development efforts. They include:

1. A concentration on building collegueship and leadership. The purposes of the programs were constantly before the group, as was the fine-tuning of the program.
2. Training on the substance of the innovation, on leadership, and on collective problem-solving.
3. Implementation was studied and practices were re-oriented on the basis of information.
4. Curricular, instructional, and technological changes were made, using content that had a good track record.
5. Effects on students were studied both formatively and continuously. (Joyce, Calhoun, and Hopkins, 1999, p. 207)

The staff development activities designed by the Arts for Academic Achievement Project leaders were discovered by the CAREI researchers to be centered around the characteristics noted above. For instance, the meetings of the site coordinators always included elements noted in items 1 and 2. At every meeting we observed the development of the coordinators as leaders in their schools. The tensions and challenges of being a teacher-leader were discussed in small groups and shared with the large group. Results from those discussions lead to curricular, instructional, and technological changes in program implementation at the site level based on the “track records” of the schools’ experiences that were found to work well.

Furthermore, implementation was studied through the observational data gathered by the CAREI researchers. (See #3 above.) Feedback on implementation was continually fed to the sites so that they could make adjustments appropriate to their settings. Data on the effect on students (#5 above) was continuously studied using the classroom observations as formative feedback, with student engagement and teacher-artist pairs’ work as focal points to shape the arts-infusion efforts. Annual student academic achievement was also part of the feedback loop, informing teachers and administrators about the on-going effects upon cognitive performance.

The combination of factors presented by Joyce et al. (1999) resonates with the thoughts of Christopher Day (1999): “The provision of time and opportunity as well as the dispositions and abilities of teachers to learn from and with one another inside the workplace and from others outside the school are key factors in continuing professional development. In the absence of these it is not unreasonable to predict that their capacities for development and abilities to model these capacities for students...are likely to be diminished” (p. 20).

The Arts for Academic Achievement Project clearly has focused its primary objective for improved student learning upon instructional reforms using arts-infused curriculum. Making changes at the individual, classroom, school, and district levels requires in-depth planning to set the program in motion and extraordinary resilience to accommodate the needs and experiences of the ‘implementation pioneers’. Indeed, Phillip Schlechty (1997) notes, “Those who would change school systems must think systemically. They

must first believe that social facts [about teaching and learning] are real and that they are real in their consequences” (p. 185). He goes on to say:

“It should not be surprising that structural and cultural change in organizations is relatively uncommon, for it challenges the roots of an organization and the assumptions upon which it is based. It focuses on an organization’s purpose (reason for being); the rules, roles, and relationships that determine how that purpose will be pursued; and the beliefs, values, and commitments that give meaning to the rules, roles, and relationships that give rise to sense of purpose that gives direction to the life of the organization. Such changes are not undertaken lightly or often, for they are cataclysmic events in the life of the organization” (Schlechty, p.206).

The focus and scope of the Arts for Academic Achievement Project has engaged teachers and students in nearly half of the Minneapolis Public Schools. Reform of this magnitude is daunting and has challenged, informed, and altered the way learning is viewed and understood. Teachers, artists, and students have re-visioned their roles and relationships as a result of those learning experiences, towards an outcome that strengthens the system and the individuals within it. This is not only because teaching and learning has been enhanced, but also because the teacher-as-leader has emerged in the process and staff development has been viewed through an entirely new lens.

## **Concluding Thoughts**

The Arts for Academic Achievement Project clearly has had profound impact upon the teachers who have come to infuse the arts into the regular curriculum. Not only has the quality of arts education and non-arts education been improved, teachers have become increasingly aware of what this has done for student engagement and its potential for improved student achievement. Those teachers who have been participants in AAA for the longest period of time, three years, are articulate about what makes the project work and how it can be made even better. They cite a transformation of how they see their students as diverse learners, all of whom are capable of being successful in an arts-infused lesson. “The kids don’t always come up with the answers you’re trying to hear, but they come up with more—some you didn’t think of.” That is, perhaps, what the best part of teaching is all about—that you and your students continue to be learners together. The AAA Project clearly supports that happening every day.

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# Appendix A

## Sample Integrated Lesson

As observed and recorded by Linnette Werner, Ph.D.

### *Observation Narrative*

Grade: 5

Subject: Math & Dance

(all names have been changed to preserve anonymity)

The students sit in a circle on the floor with Martha, the artist, while Frank, the classroom teacher, moves around the room getting things ready. They are an animated group – loud and talkative as they wait for the instruction to begin. Martha tries to remember all of the students’ names and is looking at each child in the circle, saying his/her name out loud. As she does this, the room grows very quiet. She has forgotten only two names. The students seem rather impressed since this is only her third lesson with the class.

Martha begins with, “Okay. Today we are going to slam a new rule at you today: ‘wait your turn’. You’ve heard that thousands of times, right? There’s a reason for that rule, right? And we have that rule in a lot of things that we do. Think about driving in traffic. When people don’t wait their turn, what happens?”

Martha talks about the importance of waiting your turn in daily life. She then directs them to “think about that in terms of maximizing your space” (which is a dance concept they have been working on). Martha asks, “What are some of the advantages of maximizing your space?” And the students generate responses. Martha summarizes, “So maximizing your space works to your advantage just like waiting your turn, even if it doesn’t seem like that. It’s easier for you to move your body if you maximize your space, just like I’m more likely to get [what I need] if I wait my turn.” Martha reviews what they did during the last lesson and how it relates to waiting your turn (starting together at the same time and waiting your turn).

Martha says, “Are you ready for the next new thing? Kinesphere. I just threw that word at you. Part of it you have probably heard before. Can you get what it means?” They talk about the parts of the word and how to spell it. Frank passes out a small plastic sphere for the kids to look at it while Martha tells the kids what the word means. “Kine means movement. So we have a word that means movement ball. What do you think a movement ball might be?” The students guess various things a ball that moves, a sphere like the earth that is moving, it’s the circle around you. Martha gets out da Vinci’s “Proportions of the Human Figure” (a sketch of a man within a circle) and shows it to each student. They get very excited and start making more guesses about kinesphere. Frank then puts a plastic man inside the plastic sphere and passes it around. Frank says,



“The sphere can move around this person, but he never goes outside it. That’s your maximum space. So three dimensionally that’s what this is.” Martha says, “Your kinesphere is the amount of space your body takes up. It’s like you’re inside here (the plastic sphere). It’s how much space your body takes up.” The students now have a thorough understanding of the kinesphere concept. Frank has laminated the word kinesphere and now places on the wall under the sign that says “Dance Vocabulary”.

Frank says, “We are going to show you how to figure out your own kinesphere. Martha and I are going to do an example right now.” Frank and Martha demonstrate taping out (with yarn and tape) a person’s kinesphere on the floor. Frank reviews with the class some math concepts they have been working on: radius, circumference and diameter. They then demonstrate how to measure the diameter and radius of the kinesphere.

Students break up into pairs and tape out each other’s kinesphere, then use a tape measure to measure the diameter. They record this information on a piece of paper and use long division to calculate the radius. Engagement for all groups except one is high. Martha and Frank float around the room helping with the taping and measuring as needed. The task is very challenging as creating a circle out of yarn and tape that fully encompasses each person’s kinesphere is more difficult than it first appears. Students are very busy trying to problem-solve the best way to tape out the circles as well as doing the long division to determine the radius.

Martha brings the class back together and reviews what they just learned about kinesphere. She then tells them to find a space and to maximize their kinesphere. They now enter the pure dance portion of the lesson. They begin by warming up their bodies with isolation exercises she counts along for them, explaining why she counts and how. They move into whole body movements. Martha plays the drum with her hands, the tambourine with her foot, and counts out loud while the students go through their warm-up exercises. She often corrects student postures and gives praise while doing this. Frank follows along with the students. All students are engaged and focused. They end with a dance phrase they had been working on the last lesson.

Finally, Frank hands out the dance/math homework, which is a paper and pencil assessment of the dance vocabulary and radius and circumference problems that involve drawing.