

ARTS FOR ACADEMIC ACHIEVEMENT:

# **Summative Evaluation Report**

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**PREPARED FOR**  
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**BY**

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# Introduction

The purpose of this report is to summarize findings from our longitudinal evaluation of the Arts for Academic Achievement program. The strength of the evidence for our findings varies, but these distinctions are not elaborated in this summary report. Detailed descriptions of the study design, data collection methods, and further exploration of the study results are located in the individual reports listed at the end of this document.

## Overview of Arts for Academic Achievement

The goal of Arts for Academic Achievement was to foster system-wide reform in the Minneapolis Public Schools in and through the arts. Within that goal, the program sought change in four areas:

- Change that benefits students directly.
- Change in how teachers teach and schools are run.
- Change in the way communities see their schools and schools see their communities.
- Change in the way the District makes policy.

The theory of action underlying Arts for Academic Achievement (AAA) was that when teachers and artists collaboratively develop instruction that integrates arts and non-arts disciplines, instruction in non-arts disciplines becomes more effective and student achievement increases.

AAA was primarily a bottom-up change effort; a team of interested teachers within a school initiates a project by designing a program of arts integration and arts partnerships that reflects the unique context of its school community. Teams were required to link their program goals to school and district improvement plans, which include standards for student learning, providing a top-down framework for the project. The project did not specify a curriculum framework or model for teacher-artist collaboration, nor did it stipulate which arts and non-arts disciplines should be included in the plan.

In their original proposal for funding, each site was asked to establish a team of teachers committed to developing and implementing a partnership with an artist and using the arts in their classroom, obtain the consent of their principal, and demonstrate how the project fit with their site's school improvement plan. To deepen the change process, teams were also required to do an annual action research project related to how their projects impact student achievement.

# Implementing Arts for Academic Achievement

Arts for Academic Achievement funded teams at 31 schools during the first year of implementation and expanded to include 45 schools by the third year. The majority of the teams were in elementary schools, but four middle schools and six high schools were also involved.

Schools developed a variety of approaches to integrating the arts through collaborations among classroom teachers, arts partners, and arts specialist teachers. There was also great variation in the art forms and non-arts disciplines that AAA teams chose as the focus of their work together.

In the final year of implementation, 77% of the teachers in AAA schools reported they integrated the arts into their students' lessons. Elementary teachers were more likely to integrate the arts than secondary teachers – 81% versus 70%, respectively. English/reading was the most common focus of arts integration, as it had been throughout the program. In the last year, 38% of the elementary teachers who integrated the arts said they integrated English/reading “a lot”. In contrast, only 16% said they integrated mathematics lessons “a lot”.

Just over half of the teachers (54%) who integrated the arts said they worked with an arts partner. Partnering with an arts specialist teacher on staff was another strategy used by many teachers. Fifty-seven percent of the elementary teachers and 28% of the secondary teachers reported working with an arts specialist to integrate the arts.

During the study, we developed two frameworks to describe the variation we observed among the AAA school teams. The first framework, the Varieties of Arts Integration, delineated the variation in the purpose of arts integration and in the relative emphasis of non-arts instruction and arts instruction in arts integrated lessons. For example, in some cases, instruction in a non-arts discipline is primary and the arts are used as an instrument to motivate student learning in the non-arts area. In another case, student learning in a non-arts discipline and an arts discipline are of equal importance, and the lessons are built around a concept that is authentic and important in both disciplines. An example of this variation is the AAA partnership that developed integrated lessons focused on the concepts of balance and motion, which are integral to science, math, and visual arts.

The second framework describes five models of how teachers and arts partners worked together to implement AAA in elementary schools. The models are based on data collected over a three-year period through individual teacher interviews, group interviews, observations of classroom instruction and project meetings, and school's annual reports on their AAA project. The framework of implementation models overlaps somewhat with the VAI in the descriptions of the relative focus in the partnership of learning in the arts and learning in non-arts. However, the framework of implementation models specifically differentiates the activity in AAA sites based on 1) the roles played by the classroom teacher, arts partner and/or arts specialist teacher, and 2) the number of arts and non-arts disciplines involved in the activity.

The five implementation models we observed in AAA sites were:

- Residency Model
- Elaborated Residency Model
- Capacity Building Model
- Co-Teaching Model
- Concepts Across the Curriculum Model

By comparing the models used by individual schools over time, we found evidence that most schools engaged in a learning process that deepened their commitment to arts integration and arts partnerships over time. We also identified two distinct patterns in the process of implementation. Irrespective of the level of knowledge and expertise available in the school when funding was first obtained, schools fell into two general categories:

*Increasing depth* - Some schools selected a model that felt appropriate to their school, and worked within the model over the entire funding period. Expansion, where it occurred, involved increasing the number of teachers involved, and deepening the relationship between the school and the artist and/or art form.

*Increasing breadth* – Other schools “put their toe in the water” with arts integration and arts partnerships by starting in a limited way (often with a single instructional unit in an “elaborated residency” program), and adding not only more teachers but more differentiated activities over the AAA project’s life. New artists and art forms were added, or the initial program was expanded to include multiple disciplines, grade levels, and specialists.

We shift our focus, now, to examine how AAA affected students, teachers and schools. We follow that with a glimpse of how artists and arts organizations, as members of the schools’ community, were affected by AAA. Although AAA also sought change in how the school district makes policy, our evaluation did not examine that aspect of the program.

## **Change that Benefits Students Directly**

### **Student Achievement**

Our analyses indicate a significant relationship between arts integrated instruction and improved student learning in reading and mathematics in the Arts for Academic Achievement program. The relationship didn’t occur for every student, in every class, or in every year of the project. Nonetheless, our study offers evidence that AAA was associated with real changes that benefited student learning.

Arts for Academic Achievement assisted all types of students, not just those who were already doing well in school. In some cases, the relationship between arts integration and student

achievement was *more powerful* for disadvantaged learners, the group of students that teachers must reach to close the achievement gap.

We used a gain score, the difference in a student's test score from one year to the next, as the indicator of student learning in our study. By looking at the amount of change in a student's test score from one year to the next, rather than a test score from one point in time, we minimize the potential for bias due to pre-existing achievement differences between students who received arts integration and those who did not. For each test, the district sets a "gain score range" that it considers a year's growth in that discipline<sup>1</sup>.

The following examples illustrate the evidence in our study of a significant relationship between arts integration and student learning.

**Third-grade reading.** Gain scores on the reading test were higher for third grade students whose teacher integrated the arts into English/reading lessons. For each unit increase<sup>2</sup> in teachers' use of arts integration, students' gain scores increased by 1.02 points. The relationship between arts integration and reading achievement was stronger for students in the free- and reduced-price lunch program and students in the English-language learner program. Each of these statistically significant relationships is based on a model that also considered the effect of student characteristics, such as race/ethnicity and special education programming, on gain scores.

**Third-grade mathematics.** For third-graders, the relationship of arts integration and math achievement was also statistically significant. Gain scores increased by 1.08 points for every unit increase in the extent their teacher integrated the arts into mathematics lessons. Again, these findings (as is true for all achievement results in this report) are drawn from a model that takes into account student characteristics that may also influence achievement.

**Fourth-grade reading.** Gain scores on the reading test were higher for fourth grade students whose English/reading teacher integrated the arts. For each unit increase in a teacher's use of arts integration, students' gain scores increased by 1.32 points.

**Fifth-grade mathematics.** Gain scores on the mathematics test were higher for fifth-grade students whose teacher integrated the arts into mathematics lessons. For each unit increase in a teacher's use of arts integration, students' gain scores increased by .71 points.

As these results illustrate, the amount of arts integration matters. When teachers integrated the arts into their mathematics lessons "a lot", for example, their students showed greater

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<sup>1</sup> The district considers a gain in the range of 10.0-15.1 to be a year's growth in reading for third graders, a gain in the range of 6.3-9.5 to be a year's growth in reading for fourth graders, a gain in the range of 10.0-15.0 to be a year's growth in mathematics for third graders, and a gain in the range of 6.3-9.5 to be a year's growth in mathematics for fifth graders. .

<sup>2</sup> A unit refers to the four levels of arts integration listed on the teacher survey. Teachers could chose from responses of *not at all*, *very little*, *some*, and *a lot* to indicate how much they integrated the arts. A unit increase means a change from one level to the next, from *very little* to *some*, for example.

achievement gains than teachers who integrated the arts “very little”. **It was not the mere presence of arts integration, but the intensity that related to gains in student learning.**

The findings of a relationship between AAA and reading achievement in the fourth grade are especially important. In the Minneapolis Public Schools, fourth grade is where class sizes get larger and students must shift to a more sophisticated level of reading where content and comprehension are the focus rather than learning how to read. Evidence that arts integration enhanced reading achievement for students at this critical juncture expands the options available to teachers for strengthening reading instruction.

In instances where we did not find a significant relationship between arts integration and student achievement, none of our findings indicate that AAA disadvantaged students by lowering their achievement. At minimum, students whose teachers integrated the arts benefited from an increase in arts learning opportunities *and* achieved on par with their peers who were not in AAA.

It is critical to note that the achievement component of our study, which began with the program’s second year of implementation, looked at only a slice of the arts integrated instruction taking place in AAA. Although we focused on achievement in reading and mathematics for students in the third through fifth grades, AAA was implemented in classrooms ranging from kindergarten to twelfth grade. Many teachers and arts partners integrated the arts into disciplines such as history/social studies, writing, and science that are not measured by the tests we examined. For a complete picture of how arts integration affects student learning in AAA, we would have needed to develop and examine a much broader set of indicators.

## **Student-Student Interactions**

In addition to findings on how AAA was related to student learning, we also discovered that AAA affected how students interact with each other in the classroom. Given the importance of peer interactions for student learning, we believe a positive change in student-student interactions is another way that arts integration benefits students.

In the third year of program implementation, we conducted mini-case studies of teacher-arts partner teams in six schools. To supplement the picture that was developing through survey and mid-year interview data, we observed classroom instruction and interviewed the teachers and arts partners about the instruction we observed and the full extent of the arts integrated instruction they were developing and using (for example, the goals of the series of lesson, why the arts were integrated).

The study confirmed earlier findings from group interview data related to changes in teacher instructional behavior, but also discovered that during arts integrated instruction the range of possible interactions between and among students widened. The major areas of change we observed included the following:

- Improved communication in groups.
- The emergence of unlikely leaders.

- The blending of special needs children into their peer group.
- Improved student teamwork to accomplish a goal.

Wahlstrom (2003) noted that “Often several of these characteristics were occurring simultaneously, and they tended to be more frequent and among more students as the year and the exposure to the arts-integrated curriculum progressed” (p. 7).

A case study of a high school team also suggested that arts integrated instruction can improve how students relate to each other and reduce the social and academic isolation some students feel (Freeman & Louis, 2001). In this case, the AAA team included teachers in reading, English, and a special education and theater artist from the local community. Typically, the special education teacher’s students were separate from the regular English classes. This teacher noted, however, that during the arts integrated instruction her students were able to work alongside of and perform as well as their peers. She commented:

It really was a positive experience in the fact that they were doing it with another class. I noticed as the week went on that kids started to sit with other kids, and I sat with kids from the other class, too (p. 15).

## **Change in how teachers teach and schools are run**

In addition to the impact on student achievement and students’ interactions with peers, our findings also indicate that AAA was a powerful professional development model for teachers. In contrast to reform initiatives that attempt to improve achievement through changes in policy or the structure of schools, AAA is centered on teachers and students and their on-going work together in the classroom. AAA, through its support of in-depth inquiry into the teaching and learning process in individual classrooms, brought about substantial change in teachers’ instructional practice and their role in improving schools, both pre-requisites to any lasting change in student achievement.

Teacher learning in AAA happened primarily through groups of teachers collaborating with arts partners to improve instructional effectiveness for their students. The learning occurred as AAA teams used data to select a curricular focus for their project, developed plans, implemented arts integrated instruction in classrooms, reflected on how their work impacted students, and developed ideas for improvement. Although AAA also provided large-group professional development opportunities, teachers referred again and again to what they learned about their students and their teaching from their experiences in the classroom with arts partners and arts integration. The emphasis on groups of teachers working together with an arts partner not only enhanced the learning of individual teachers but also promoted school-wide change. In sum, AAA exemplified the characteristics of professional development that research has demonstrated to be effective in changing teacher practice and improving student learning.

Our findings indicate that AAA stimulated teacher change in two broad areas – learning and leadership - which both affect student learning in important ways.

## **Teacher Learning**

Teachers readily described how AAA helped them discover new instructional strategies that make learning more engaging for their students. Examples of how instruction was changed through AAA are described below.

***Instruction became more child-focused.*** Through AAA teachers became more comfortable acting as facilitators of student learning rather than solely as knowledge dispensers. Arts integration enabled students to explore concepts and make connections at their own pace and develop connections that were personally meaningful to them.

***Teachers expanded their toolkit of instructional strategies.*** By co-developing instruction with arts partners and integrating the arts into non-arts lessons, teachers learned new strategies for engaging students in learning. Changes noted by Wahlstrom (2003) include:

- A greater use of and emphasis on revision and improvement of student work products. Students were expected to understand the concepts of iteration and development in a piece of work.
- The concept of ‘critique’ was often present – students knew what a critique was and how valuable it can be in order to improve something, without having a negative or unfair connotation associated with the suggestions.
- Risk-taking was supported, indeed encouraged, so that the students didn’t feel ‘stupid’ [their words] as often. Self-censoring was clearly reduced the longer the artist, the students, and the teacher worked together.

Perhaps most importantly, teachers reported that these practice changes went beyond the arts integrated lessons. As Werner and Freeman (2001) stated “Many teachers went far beyond simply acquiring new activities to altering the way they think about teaching on a daily basis” (p. 15).

***Changed perceptions about student capacity.*** Arts integration allowed teachers to see strengths in students they had not expected and discover options for assessing student learning, making them aware of change and learning in students that they might have overlooked before.

Wahlstrom (2003) noted:

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*” (p. 8).

## **Teacher Leadership**

In addition to changes in how teachers teach, we also found that AAA helped teachers develop leadership skills and expand their role in efforts to improve student learning. Rather than simply implementing a curriculum or instructional strategy developed by someone else, AAA asked teacher teams to: take a lead in identifying curriculum areas where their own students were struggling, select an arts partner, develop a relationship with their arts partner as they collaborate to develop learning activities, provide instruction, and assess the impact of their work through action research.

The AAA requirement that teachers work in teams with an arts partner, rather than as individuals, challenged teachers to develop skills in holding each other accountable, resolving conflict, and building on their individual strengths to create a more effective learning environment for students. Taking on the larger role of improving instruction outside their own classroom and having to demonstrate that their actions have an impact on test scores leaves AAA teachers better prepared to transition to the era of *No Child Left Behind* with its increased emphasis on testing, accountability, and closing the achievement gap.

## **Change in How Schools are Run**

The district requires each Minneapolis school to develop a school improvement plan that identifies priority areas for improvement and strategies for accomplishing the change. One indication of a school’s commitment to AAA is whether the school plan included arts integration as a strategy for reaching improvement objectives. This critical step is not as simple as it may seem because the plan is developed by a team of stakeholders at each school and includes not only teachers but also parents and community members. Stakeholders must be convinced that the strategy is worth the effort and that its impact on school goals can be measured. This is unlikely unless a majority of the school’s stakeholders are committed to a strategy, be it arts integration or a new discipline policy.

In our comparison of 25 schools that were involved in AAA for four years, we found an increase in the proportion of teachers reporting that their school improvement plan included the arts from 43% to 55%. There was also an increase in teachers reporting that their school’s staff development plan reflected a commitment to increasing staff skills in arts education from 35% to 43%. Both of these changes reflect a growth in the commitment of a whole school staff to arts integration.

## Change in the way communities see their schools and schools see their communities

Artists and arts organizations that developed partnerships with school teams represent one dimension of the community that was most directly involved in AAA. Although our study focused on changes for students and teachers, we also captured information that illustrates change in how arts partners view their role in schools.

The most notable role shift can be traced to the emphasis in AAA on building long-term partnerships rather than adhering to the traditional *artist-in-residency* model. Many artists contrasted their experiences in residency programs with their involvement through AAA, and all of the artists asserted they were no longer satisfied with the residency model (Werner, 2002). One artist compared the residency model and her experience in AAA as follows:

It's not the UFO model, as I put it. The landing, doing the thing, and then leaving. It's really about what I'm here to try to enhance, embellish, infuse – what it is I do with what you've already got going on. I don't want to be landing from outer space. I want it to make sense.

Another artist captured the change in artist role as follows:

With Annenberg, I saw this as a very different kind of thing. This was more directed toward curriculum and real learning and real partnering with teachers and less worrying about how it's going to look at the end. More really looking at what's the most valuable thing we can do with the arts here in learning how to teach the curriculum together. A lot less focus [on final product] for me . . . I really focused in on 'What are the needs of this teacher? What are their problems? Where can this help them out?' Rather than focusing so much on myself, which is what I usually do during a residency, really bring all new stuff rather than fit into something that is already happening.

Artists also noted that, through AAA, they became an integral part of the school community, by serving on committees, creating school-wide events, and generally becoming an ambassador for positive change through the arts. One artist described her role change as follows:

What I enjoy is the schools where I go back year after year. Those teachers know what I do and I'm not the event anymore. . . . I used to be the cream on the cake and all of a sudden, I'm the cake! I am part of the actual work, not as much a flash in the pan, but part of a long term partnership.

Werner wrote “. . . the artists themselves, with their varied backgrounds and arts expertise, became links to other opportunities and ways of doing things that teachers and schools had not been able to access before the partnerships began” (p. 3).

## Conclusions and Recommendations

In conclusion, our findings indicate that Arts for Academic Achievement has:

- Changed teacher practice to better meet the needs of a diverse student population;
- Positively impacted the achievement gap and improved learning in reading and math for students in general;
- Provided consistent, long term support to schools and teachers that is coupled with accountability;

Rarely, in our combined 30-plus years of evaluating school reform initiatives, have we studied an initiative like AAA that is associated with meaningful change in how teachers teach, change in how teachers perceive their students' capacities, and significant improvements in student learning. For this reason, we recommend the continuation of Arts for Academic Achievement.

Continuation is important so that teachers who have learned how to collaborate with arts partners and integrate the arts in Phase I can continue their work. The initiative is not self-sustaining because it requires resources, at minimum, for arts partners, planning and reflection time, and overall program coordination. It is also important to make the program available to the many teachers who are new to the district each year so their students can benefit as well.

Our recommendations highlight the elements in AAA that we think are critical for continued success and areas where further development would strengthen the program.

1. Continue to support arts partnerships in AAA. They are the critical ingredient, whether the partner is an artist, arts organization, or arts specialist teacher. AAA should continue to focus its funding on long-term, collaborative partnerships where teachers and arts partners work together to: plan, develop curriculum and/or instruction, deliver instruction and assess student learning, collect data on the impact of instruction, and reflect and adjust throughout their project.
2. Maintain the district-level leadership and accountability component of AAA. Teachers said, and we concur, that it's important for teams to know they are accountable for developing a feasible plan, carrying out that plan, and assessing their impact on student learning. District level accountability also ensures that, in funded schools, AAA doesn't get lost among the many demands competing for teachers' time and energy.
3. Put resources where the needs are greatest. The amount of arts integrated instruction and the depth in a partnering relationship make a difference for program impact. Spreading too little funding among too many sites limits the impact of the project for everyone involved. Instead, resources could be targeted to schools with less community support, or schools struggling to raise achievement for hard-to-reach students.

4. Provide differentiated technical assistance and professional development. There are several schools and many teachers and arts partners now who are mature in their understanding of arts integration and partnerships. They need different content and levels of technical assistance than newcomers or those less experienced in AAA.
5. Expand the role of arts specialist teachers, both as arts partners and as teachers partnering with artists. We believe that both arts specialist teachers and external artists can make valuable contributions to student learning and development. Often, because of constraints in teaching schedules, arts specialists remain an under-utilized resource for partnering in their building. Scheduling constraints also may limit the involvement of special education and ELL teachers on an AAA team, leaving out students who could benefit from the project.
6. Continue, in a low-cost way, to increase administrator awareness and understanding of collaborative arts partnerships so they, too, can expand their toolkit of techniques to improve teaching and learning.
7. Identify which varieties of arts integration and implementation models are more or less effective in different contexts. For example, some implementation models may be more sustainable than others in situations where funding is more limited. Models that include capacity building for teachers are more likely have effects that last beyond the involvement of the arts partner.
8. Draw on existing external research and continuing AAA action research to identify which areas of which disciplines benefit most from integration. Not all arts integration is equally effective and a knowledge base is beginning to emerge in this area.
9. Recognize that funding support for artists and arts organizations is likely to decline. Be aware that because they may have less “extras” to contribute to the partnership financially and in terms of person-energy, schools may need to do more.

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