

**ARTISTIC PRODUCTION AS EVIDENCE OF LEARNING
IN INTERDISCIPLINARY CONTEXTS**

By

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Throughout the United States, students are receiving art instruction through interdisciplinary curriculum developed by artist-in-residence programs and artist-teacher teams. It has been argued not only that this enriches the students' artistic experiences, but also translates into enhanced performance across the curriculum (Catterall, 1995; Fowler, 1973; Freedman, 2000). Assessment of that impact, however, has hitherto largely ignored student artistic production itself, focusing instead on learning in non-arts disciplines, such as reading or mathematics, and general cognitive skills, such as higher order thinking (Deasy, 2002).

In this paper we describe findings from a study to determine how students' learning in interdisciplinary curriculum involving the arts can be assessed through students' artistic production. The study investigated three main questions:

1. What learning is currently being assessed in interdisciplinary curriculum involving the arts and how is it being assessed?
2. What additional art and non-art knowledge do students learn in interdisciplinary curriculum involving the arts and how can it be assessed?
3. What practical new strategies can teachers and artists use in these contexts to fully gain access to student learning as demonstrated in their art and art-related production? (Rather than focusing on judgments of artistic quality per se, assessment in this context will aim to reveal student knowledge of the arts, interdisciplinary knowledge, and knowledge of other school subjects.)

In light of recent scholarly attempts to determine the relationship of arts to non-arts disciplines in education, a consideration of what is actually learned by students in interdisciplinary arts education contexts, and as demonstrated through the art made in these contexts needs to take place. This study advances knowledge and understanding in this critical area by documenting current assessment practices and offering new strategies teachers and artists can use to assess student learning through their art and art-related production.

Methods

The study was a collaborative endeavor involving researchers, teachers, and artists in three major cities in different parts of the nation. The geographic range was an intentional part of the design to enable us to compare the nature of assessment approaches across differing environments.

In each city local researchers were participant-observers as teacher-artist teams worked to develop assessment strategies for student artistic production. A total of six teams were involved in the study and each team was involved in a major initiative aimed at developing interdisciplinary curriculum prior to the start of the study. The teams were selected based on their interest in developing assessment strategies, their previous experience working together to develop interdisciplinary curriculum involving the arts, and the grade level of their students. Three of the teams were working at the elementary level, two in middle schools, and the sixth was at an alternative high school. The high school site was removed from the study when it became clear that the necessary data could not be collected. Art forms the teams were working in included dance, theater, media and visual arts.

The two teams at each city site met monthly to develop assessment strategies. During the meetings, which were convened by the researchers, teams shared their progress, questions and solutions.

The researchers met three times during the study to review findings from each city site, conduct initial cross-site analysis of the results, and identify new issues to explore in subsequent data collection. Researchers collected data through participant-observation of team meetings, classroom observations, interviews with teachers and artists, and review of samples of student artistic production. Interviews were audio-taped and transcribed. Data were analyzed to identify themes within and across city sites.

NEW YORK CITY ASSESSMENT WITHIN AN EMPIRE STATE PARTNERSHIP

Researchers from the Education Development Center/Center for Children (EDC/CCT) and Technology explored how a visual artist and a third grade teacher in a New York City elementary school viewed their own assessment practice. The school's neighborhood, at the edge of the City, has a suburban feel and is populated by many cultures, particularly Asian, with many recent immigrants. At the beginning of the school year, the school had 548 students in pre-k

through fifth grade (56.7% Asian and “others,” 26.7% white, 11.6% Hispanic and 5.0% black, with 19.7% eligible for free lunch). The artist residency was supported through an Empire State Partnership of the New York State Council on the Arts.

At the time of the study, the artist and teacher had already collaborated for over 10 years. The artist worked for a partnering organization that supports residencies in public schools and provides professional development for teachers in art education. Instruction was focused on art making within various media and connecting artistic production to academic learning. EDC/CCT researchers observed classes, examined children’s artwork and writing, and accompanied children on a trip to a museum.¹ The artist and teacher kept running journals on their experiences within the project and were interviewed several times.

Assessment Practices at Project Start

We asked the artist and teacher to describe areas in which they attempted to assess learning during the artist residency, either formally or informally. Their categorization revealed that they each emphasized areas within their own disciplines that they were most comfortable with:

Teacher – Areas of Assessment

1. Social growth and speaking

- Student interactions
- Risk-taking
- Public speaking

2. Writing

- Technique
- Self-assessment
- Revision

3. Reading

- Information retention and use
- Following directions
- Vocabulary

Artist – Areas of Assessment

Arts Organization Standards

- Techniques
- Materials

Art and Classroom Learning - Creating

¹ Most fieldwork was conducted by Daniel Serig.

- Composition
- Art and design principals and concepts
- Creative application
- Revision
- Self-directed learning
- Risk-taking

Art and Classroom Learning – Responding

- Vocabulary
- Public speaking
- Self-assessment
- Interpreting and responding to artwork

The artist reported that the only attributes she formally assessed were the standards of her arts organization. The other listed characteristics were embedded within her instruction, as she sought to understand children’s learning and improve her instruction. Both the artist and teacher had experience with portfolios. This started early in their relationship due to the school district’s insistence on writing portfolios and the arts organization’s requirement for art portfolios. The artist and teacher playfully discussed their involvement with varied forms of assessment practice, revealing that they viewed these as mandates disassociated from the specifics of their own teaching practice.

Teacher: [The artist] arrived and set up the portfolios and the City had just thrown portfolios at us at the same time.

Artist: This theory. These learning theories were coming from two different places.

Teacher: Portfolios, collecting kid’s writing and we had a checklist. They cut down forests for these checklists.

Artist: You’ve never seen so many checklists in your life.

Teacher: For every piece of writing you’d be filling out checklists...

Artist: And we bonded because [I had to do] the same thing. They called them the instruments.

The artist and teacher still used portfolios within their own disciplines for assessment, but the integrated learning of art and non-art knowledge was not assessed. They both firmly believed that children’s involvement in visual arts helped children in non-arts areas but were unsure how to assess cross-discipline learning. They felt far more secure in assessing their own areas of expertise.

The artist's portfolio practice included having students work in pairs at the end of the year as they spread their work in front of them and talked about what they liked, what they would change, and what they had learned. The students were then asked to document their thoughts on a portfolio reflection sheet on the last day of the semester. The artist described the process in a journal entry.

The children use the portfolio to help them look at the work and consider their own progress. I tell them that is one of the things all artists do. The children can see for themselves how their work has improved...control of materials, etc. And they can use their own judgments about the quality of their work. Perhaps, they can even begin to describe what quality in the work actually would look like. They begin to consider where they would like to improve, or begin to be able to identify a personal style. It is often one of the first times that they can experience the intimate kind of thinking that goes into really having an opinion about one's own efforts and achievement. Also, hopefully, they begin to create a personal plan or direction for their success. I don't think children have that kind of opportunity to experience personal assessment very often in early learning.

The teacher encouraged the use of visual images in writing journals. She believed that some children think better in images. Student journals and sketchbooks both contained visual images where initial ideas and sketches were moved, through revision, towards a final product. The teacher believed she could look at this work to assess how the writing and art affected student learning.

We did narratives and we illustrated them. So the children wrote a story and then they came up to the art room and they had to do three pictures, like a picture book [with a] beginning, middle and end of the story. And they had to go back to their writing again and look for the beginning, middle and end. As they were illustrating [one of them might say], "Oh, look at this illustration. I'm making children go out of the library." Then you go back to the writing and they didn't clearly [describe leaving the library] – it sounded like the whole story took place in the library. I think that concentrating on the details in the artwork gave them the eye and the patience to go back into their writing again, which I think is developed with these children slowly through the years by working in the art room...I think that a lot of the success of what we've been doing is going back and forth: the art helps the writing and the writing helps the art. It was interesting for me saying to the kids, "Well, look at these pictures. Look at all the details. You don't have it in your story, so let's go and work on the story a bit, too."

Additional Art and Non-Art Knowledge not Assessed at Project Start

The artist and teacher had a firm grasp of the content within their disciplines. As the teacher put it, “I know third grade better than I know anything in my life.” But it could be revelatory for the teacher to understand the children’s development within visual arts. During an interview, she presented student drawings based upon Inuit culture that had affected her perception of their learning. She attributed this to the integrated-art experience.

That’s why I’m excited about [these drawings]. That’s what we’ve been working on this year in the art room. They understand their artist’s eye. They understand what to look for and that’s going to go beyond art into, hopefully, their writing and into their understanding. This is what I’ve been striving for with [the artist], hoping the art would help me because I don’t feel I’ve done it as much in the classroom as I would have liked. I need art to do that for me... Those kids did not all sit and copy [artwork] from the book – maybe one or two of them might of – they looked at it and really absorbed it and they understood what they were trying to do and they were able to do it. The artist described how children could learn about cultures through attending closely to the characteristics of artworks.

There is a bigger point to be made about cultures and looking at the artwork for differences in how these cultures are represented visually, recognizing Inuit work or [work] from Tibet. Because there are subtleties, and they’re recognizing them. I mean, they’re seeing a piece of art and understanding...using the same words: curved, simple shapes with some of that carving in Inuit work and then looking at some of the Tibetan mandalas.

These examples imply possibilities for the teacher and artist to extend their assessment practice in ways that might weave together art and non-art learning. More in-depth discussion might lead to defining the learning characteristics within the residencies that could be assessed in a manner that the artist and teacher would find valuable to their own practice.

Application of New Assessment Strategies

Towards the end of the study, the teacher took what she had seen in two children’s artworks – things she had observed and assessed directly from their artwork – and used that information to alter her teaching strategy with them in other learning situations.

I could do what I did with B_____ and take it back to the classroom and tell her to use her artist's eye to try to be more successful in other areas. You know, sometimes that will work, sometimes it probably won't. That's not to say I wouldn't try it again because now I realize that B_____ can hook onto that. I spoke to her when we were preparing for the writing the other day. I said, "Let's remember how you're so good with your details [in art]. Let's take that artist's eye and try and be good with your details in your writing." Sometimes it will work, sometimes it won't. But that's what I use it for. I did it with C_____. I went to the team that's trying to work with him and help him out with his disabilities and said, "I think I have something for you to try and have him do. Try and have him write about what he's doing [in art]."² And these are people who are trained in special ed. who were very excited to hear about it. And so they value what we're saying. Now again, how much will it help C_____? We don't know. And it certainly won't be the only thing they do with him either. But it certainly is a hook that to me seemed like it might help him a little bit because he likes art. He likes doing it. And we saw that it worked without any training, teaching, whatever. That's what I do with it. I take what I see and try to use it with the kids in other areas.

The experiences with students B_____ and C_____ exemplify some of the best application of assessment we observed. The artist and teacher had each child's success in mind and used whatever means of assessment they had at their disposal, be it artwork or writing or something a child said, in order to support student learning. Although they had been exposed to a cornucopia of assessment methods, including portfolios, rubrics, checklists and art shows, the most successful strategies have been those that: (1) were most closely embedded to individual children's learning experiences, and (2) were authentically connected to the content and methods of their teaching, and (3) they had a personal investment in and that they felt informed their teaching. Their least successful forays into assessment were those mandated by a higher authority.

MINNEAPOLIS ASSESSMENT WITHIN THE ARTS FOR ACADEMIC ACHIEVEMENT PROJECT

In Minneapolis we selected participants from the Arts for Academic Achievement project, an arts-infusion initiative that was in its fifth year of implementation in the Minneapolis

² Special education students were mainstreamed into this third grade class.

Public Schools. Based on discussion with the project director, we selected two teams that best fit the criteria for the study and invited them to participate in the research. Arts for Academic Achievement (AAA) then provided matching funds for the NEA grant by giving these teams funding to plan and deliver arts-infused instruction. Because an earlier, multi-year research study of AAA had focused on student learning in non-arts disciplines, particularly reading and mathematics, the project director and the participants selected for the current study were eager to tackle the challenge of assessing students' arts learning within the context of the arts-infusion initiative.

Our approach to working with the teams evolved during the study period as we learned more about the nature of the two partnerships and the participants' previous experiences with assessing learning in the arts. When the research proposal was developed, we envisioned that we would use a locally developed tool to guide teams in collecting information on student learning and then assessing that learning relative to the state and district learning expectations in the fine arts. After presenting the tool at a meeting near the start of the study and discussing its feasibility with the participants, however, we recognized that we needed to shift our approach. Given the participants' limited experience in formally assessing student learning in the arts, the complexity of the tool, and the limited amount of time available in the study we decided to offer the tool as an option for data collection, but not a requirement.

We met six times with the combined teams and the meetings typically lasted for two hours. During the meetings we asked the teams to describe their instruction, the learning goals for students, how they planned to assess student learning, and what student learning they had observed so far. On two occasions we discussed tools the teams could potentially use to collect information about student learning. At our request, one of the artists also described an earlier experience in conducting action research on student impact in an arts-infused unit. The project manager for AAA and the education director for the theater company that employed the artists also participated in the meetings. They were able to broaden the base of discussion at the meetings by drawing on their previous experiences with a range of teacher/artist partnerships.

In addition to our notes from cross-team meetings, data sources for this analysis include: an interview with each team, journal writing from the two artists and one teacher, student work, and student responses to reflection questions the teachers posed at the end of the arts-infused units.

Site Description

At McKinley Community School a teacher in a combined 4th and 5th grade classroom and a theater/movement artist collaborated on a series of lessons in which students created a dance sequence, wrote poems, and performed them at an all-school event. The artist was in the classroom once a week throughout spring semester and the teacher continued working on the unit in between the artist's visits to the classroom. There were 23 students in the classroom and eight of them were receiving special education services, an unusually high number for this school. This artist had already begun work in the classroom when the research project was initiated.

At Pierson Middle School a sixth grade English language arts teacher and a theater artist collaborated on a mythology unit that is part of the required middle school curriculum. The team's goal was to improve students' writing skills by having them create their own myths and then work in small groups to transform the narratives into a performance. The artist worked with the 25 students in one of the teacher's sections of sixth grade language arts. The artist was in the classroom for a total of 12 sessions and the teacher continued work on the unit in between the artist's visits to the classroom. When we initiated the research project this team had developed plans for the unit but the artist's first visit to the classroom did not occur until mid-February.

Assessment Practices at Project Start

Three of the participants had direct experience in formally assessing student impact during previous arts-infused units. In one case a teacher collected data on how student attendance was affected by performances. Another teacher assessed student writing, both through formative and summative assessments based on a rubric and exemplars developed by the school district. One of the artists conducted an extensive action research project with a collaborating teacher on a unit focused on developing students' language skills through acting. A teaching assistant documented each arts-infused lesson, including quotes of student remarks and everything that was said by the teacher and artist. Because the teaching assistant knew the students, she was able to qualitatively document instances where she observed change in individual student's use of language. The fourth participant worked as an artist in a classroom where the teacher assessed student growth in vocabulary using pre- and post- teacher-developed tests.

These experiences, in part, reflect the aims of the Arts for Academic Achievement project (AAA), the context in which the participants have done most, if not all, of their previous work with arts-infusion. AAA's emphasis is on improving academic learning through arts infusion

and arts partnerships, hence the data teachers and artists gather is almost always focused on change in students' academic skills and knowledge rather than student learning in the arts. Another factor may be that because the school district has a strong emphasis on formative and summative assessment in reading and mathematics the teachers have had more opportunity to develop skills in these curricular areas than in the arts.

Additional Art and Non-Art Knowledge not Assessed at Project Start

As the participants carried out their arts infused instruction, they provided rich descriptions, through journal writing and discussion at meetings, of the learning they observed in their students. We analyzed this data and developed categories for the types of knowledge, skills, and processes that teachers and artists described. In all but one case the categories represent student learning in the arts. The lack of examples of student learning in non-arts disciplines is not surprising because we told participants the primary focus of the study would be on identifying learning in the arts. The categories we developed appear below, each with an example of an indicator that the teams observed in their students. A full listing of the indicators mentioned for each category appears in the Appendix.

Affective - Students recognize the difference between the broader range of affect that is acceptable during the performance part of the day and the narrower range that's acceptable during the rest of the school day; and they are able to make the adjustment back to narrow.

Culturally-based aesthetic experience - Student performance of the rhythmic chair dance highlighted simultaneous independent rhythmic action, which Thompson (1974) refers to as "many drums." The reemergence of the dominant group rhythm from these polyrhythmic episodes, and the many instances of cueing within the dance and spoken segments of the performance are evidence of student concern and virtuosity with "correct entrance and exit."

Embody the role – in the words of one participant, "They weren't reading anymore; they had to act. They were telling it. They let go of the paper. . . . you can hear it in their voice and see it in the way they hold their body: more forward, more ownership, feet flat on the floor instead of rocking, that rocking thing that kids get into when they're not confident."

Flexible persistence - an artist stated ". . . in the process of creating the dance and the spoken language they were able to stay in process and deal with making changes. And when stuff didn't work, you know, being able to go 'Okay, then what will?'"

Following directions - students know exactly what they are supposed to be doing at all times.

Knowing the whole – when students are absent other students are able to learn the missing students' parts and fill in easily.

Make connections - students can make connections between their performing and their writing and describe how they influence each other.

Process of creating - in the midst of a writing project students are able to identify where they are in the create process and provide evidence to support their decision.

Student expresses own signature – reader has a sense of the person behind the artistic production.

Technical skills and tools in:

Observing – can describe the emotion and meaning they observe in physical gestures and shapes.

Performing – can inhabit a character.

Self-reflection - can recognize and explain their artistic choices.

Writing – using performance to generate ideas for strengthening a story.

Use artistic media to express relationship of ideas and feelings - Students develop tableaux to convey ideas and feelings from their narrative writing.

Working collaboratively – listening and giving suggestions.

In addition to the many examples of student learning in the arts, one team also noticed that students demonstrated a greater understanding of the concept of bragging in successive drafts of their poems. Students became more specific about the quality they were bragging about and their claims became more exaggerated. This is an example of how teachers could use students' artistic production, such as poetry writing in this case, to assess student learning in academic areas.

Application of New Assessment Strategies

At Pierson, the teacher used a writing rubric to assess growth in students' writing skills as they developed successive drafts of their myths. Although she has used this rubric to assess student writing in other units, this is the first time she used it in an arts-infused unit. The rubric includes the following areas: ideas and content, word choice, organization, voice, sentence fluency, and conventions. There are several descriptive statements for each area and a place to assign each statement a rating from 1-5. In addition to the teacher's assessment, each student had an opportunity to read a draft of another student's myth and offer a critique based on the

areas in the rubric. They also provided comments on aspects such as the author's strengths and areas that need more details.

Midway through the unit the teacher asked students to identify similarities between the writing process they had been working with and the processes of create and perform. She also asked students to decide where their small group was in one of these processes and justify the decision. She also asked students to respond in small groups to a set of reflection questions at the end of the unit:

One thing that I already knew, but it's good to come back to, is the reflection pieces that they did and for the students to be able to articulate kind of what they were doing and where they were at and what their process is. . . . Have them write about what they learned and what the process was and maybe extend it to how it's applied to other things.

Based in part on her students' descriptions of what they learned and how they experienced the unit the teacher said when she does the mythology unit next time she will seek more balance between the writing and the performing by increasing the emphasis in instruction and assessment on students' performance skills. She also expressed a desire to learn more about assessing student performances, perhaps having more time with artists or some in-depth workshops. She wants to know more about what to expect out of sixth graders in a performance and when they create their own pieces:

I know what I've considered to be a pretty good job at doing that. Is that normal? My experience with that is pretty limited. Is that a good expectation for what's good? Or is it not? Are they excelling or are they way far behind where they should be?

Although the artist working at Pierson didn't have an opportunity to develop assessment tools during this study, he offered that a teacher or artist might use a pre- and post-writing task to assess how well students can use detail in narrative and express their artistic voice. He also described how a teacher or artist might assess students' vocabulary, but noted that vocabulary isn't what he values in student learning.

I would suggest some kind of a – I'm not sure I'd want to do this, but some kind of a vocabulary pre-assessment -- third person, first person, perspective; maybe some of the sort of vocabulary of the stage performance – blocking, stage left, stage right. . . . Those are not the things that are most important to me as a resident artist but to the classroom teacher they might be. Especially at a time when you're trying to justify funding that might be fine.

Finally, he noted the difficulty of judging students' artistic production solely through their final performance; instead it would be "better to look at the journey, the rehearsals, and the feedback."

The teacher at McKinley asked her students to write individual responses to questions about their experiences in the arts-infused unit and then collated their responses. The following are examples of the 20 questions she posed to students:

- Are you a better writer than you were last year? How do you know the answer to this question?
- What was the most difficult part of the performance?
- If you were meeting students who were about to create a dance like this, what advice would you give them?
- Name five value words that you associate with this experience.

We reviewed the student responses informally during an interview with the teacher and artist. The responses provided insight into the students' experiences and suggested options for how similar units might be assessed in the future. For example, by analyzing students' explanations of how they know they are a better writer than they were last year, the teacher and artist can determine the extent to which students understand the qualities of good writing and what good writers do, such as practice.

The McKinley teacher also compiled successive drafts of student's poems. Although there wasn't an opportunity during this study to do so, in the future the teacher and artist could assess growth in student writing by comparing individual student's drafts over time. Given the importance in the district of student achievement in reading and math, the teacher also disaggregated the results of standardized tests in these subjects for a subgroup of her students.

Reflection

The participants' experiences prior to this study confirm that in arts-infused instruction the assessment of academic learning is far more common than assessment of learning in the arts. However, the study data indicate that students participating in arts-infused instruction are developing skills and knowledge in the arts in addition to the more commonly documented learning in academic areas. When provided with an opportunity to focus on student learning in the arts, the teachers and artists in the study were able to provide rich examples of student learning in the arts that occurred in the course of two art-infused instructional units. The teams' experiences of developing and using assessment tools to capture this learning offer others a starting point to develop their own assessments and insight into the challenges of measuring arts learning in arts-infused contexts.

The student reflection tools that both teachers developed were useful in making students' experiences in the unit more visible to the instructors and they also have the potential to make students more aware of their learning. While teachers and artists may be aware of student growth as the unit moves forward, it is critical to provide students with multiple opportunities to look back and reflect on the course of their learning. Including opportunities for reflection also makes the learning experience more authentic to the arts. The challenge is making time for substantive student reflection and providing students with tools for this exploration, such as responding to a set of predetermined questions as the students in these classrooms did.

One challenge voiced by participants was how to make decisions about what to assess in these contexts given the reality of limited time and resources and the complex, multidisciplinary nature of arts-infused instruction. As one participant noted "There are so many things going on at once I can't imagine how many rubrics you'd need to have in order to share all that." Although this study was helpful in identifying the variety of learning in the arts that can occur in arts-infused instruction, it's clear that the participants could have benefited from more coaching and peer interaction on how to select the learning outcomes that are most important to assess in a given situation. It would also have been helpful to familiarize the teachers and artists with the state's academic standards in the arts and the district's expectations for student learning in the arts.

It would have been helpful to spend more time during the study discussing not just the kinds of information the teams would gather to assess student learning but also how they would make meaning of that data. For example, both teams videotaped portions of their instruction and both collated drafts of individual student's writing over time, yet we did not have time during the study to provide them with tools to translate this information into evidence of student learning.

The participants concurred that assessing student learning in the arts had to go beyond measuring the final performance or production, yet they felt less prepared to formally assess students' process of writing a myth or creating a dance. Assessing the process also potentially increases the assessment burden by increasing the number of points at which assessment must occur.

Another challenge is to increase the artist's involvement in developing assessment strategies and actually assessing student learning. Although the artists in this study were able to informally assess student learning, there was limited opportunity for them to be involved in shaping the assessment tools used in the study and in making sense of the results. This aspect is critical for programs like Arts for Academic Achievement, in which the artist is assumed to be

the primary source of knowledge and experience in the art form being infused when the artist is partnering with a classroom teacher. Involving the school art specialist in the partnership as a resource in assessment was one option discussed by our participants. However, this is likely to be a solution in only a small number of cases given the limited number of arts specialists in the schools, particularly in the areas of theater and dance. It's also important to recognize that although an artist may be very knowledgeable about his/her discipline, further professional development in assessing learning in that discipline may be needed.

Indicators of Learning in the Arts

Affective Students experience positive and negative consequences of working together to create something. They feel pride in themselves and in the group. They experience fear, stage fright. They feel excitement, they have fun. Many students connected the experience to previous performances at their old school and the feelings they had then.

“Students are allowed to perform something that they have almost ‘given birth’ to, that is created. They have invested in it, they own it, and they derive all the positives from producing it and performing it.”

Students recognizing the difference between the broader range of affect that is acceptable during the performance part of the day and the narrower range that's acceptable the rest of the school day. Being able to make the adjustment back to narrow.

Students developed confidence in themselves as a group of new students in a school and individually. They became more confident in their bragging poems and in performing these poems. Some students who are usually very quiet became comfortable performing.

Students came out with a new understanding of themselves as a group and as individuals.

Culturally-based aesthetic experience. Development and performance of the student work at McKinley Community School in particular showed evidence of African Aesthetic in performance (Thompson, 1974). Student performance of the rhythmic chair dance section of this work highlighted simultaneous independent rhythmic action, which Thompson refers to as “many drums.” The reemergence of the dominant group rhythm from these polyrhythmic episodes, and the many instances of cueing within the dance and spoken segments of the performance are evidence of student concern and virtuosity with “correct entrance and exit.” The role of bragging, or signifying, in the creation and performance of this work also connects with important features of the African Aesthetic tradition. These connections were not articulated by the teachers, yet key elements introduced by the teachers seemed to support the African Aesthetic character of this performance experience, particularly their focus on the

tradition of “bragging,” and their choice of performance materials based on percussion and rhythm.

Embody the role. Students practiced and practiced until they just knew the dance sequence, they practiced enough to make it a performance, they internalized the role, they could describe the rules in the chaos part of the dance to the teacher.

“They weren’t reading anymore; they had to act. They were telling it. They let go of the paper. . . . you can hear it in their voice and see it in the way they hold their body: more forward, more ownership, feet flat on the floor instead of rocking, that rocking thing that kids get into when they’re not confident.”

“And then there were parts in the dance that if you didn’t know the dance and you were watching, like when they stood up and read the newspapers, but they knew they had it. They knew when it happened but they also knew not to let us, the audience, in on what the internal structure was. I mean, they learned to keep that to themselves. So it wasn’t like this obvious head bobbing, counting thing going on or anything like that.”

Flexible persistence. Develop a group style, being able to move from the “connected” phase to the “chaos” part of a dance and back again, the students come out with a different understanding of themselves as a group and as individuals.

Persist with practicing a piece: “. . . in the process of creating the dance and the spoken language they were able to stay in process and deal with making changes. And when stuff didn’t work, you know, being able to go ‘Okay, then what will?’”

Students moving away from a focus on the minimum number of words they need to write to complete the assignment to not worrying about the minimum and just writing and writing.

Following directions. Students know exactly what they are supposed to be doing at all times.

Knowing the whole. Teaching them [dance sequences] to the other groups [of students in the classroom].

Students able to add an unstructured, original portion to their dance after working with Byron as guest artist. “I am really impressed with the flexibility of the students. We are experiencing absences frequently, but the kids just slide right into learning each other’s chair pattern.”

Make connections. Students can find similarities between the writing process and the creating process

Students can make connections between their performing and their writing and describe how they influence each other.

Process of creating. Students recognize that creating a story requires revision, adding and taking away material, brainstorming and a willingness to accept feedback and incorporate it into subsequent drafts. In the midst of a writing project students are able to identify where they are in the create process and provide evidence to support their decisions.

Student expresses own signature. Originality of voice, using freedom with language, commitment and ownership – not necessarily taking suggestions, providing input into editing and revising a large group product, the students’ aesthetic comes through – students critiqued each other by using “put-downs” and this is different from how the instructors wanted them to work, performing in unexpected ways, students overcome personal difficulties to perform,

“Use fresh, original ideas; reader has a sense of the person behind the text, writer reveals some of themselves in writing, precise interesting words used in a natural way.”

Technical skills and tools in:

- **Observing:** learning to see, listening, developing vocabulary to describe what they see, describing the emotion and meaning they observe in physical gestures and shapes.
- **Performing:** ability to inhabit a character, volume, timing, blocking, eye contact, voice tone, flexibility, applying what was learned about performing in a drama unit to a subsequent poetry unit (poem as monologue)
- “What’s really neat is when you realize that it’s in their bones more than it’s in your brain. That’s pretty cool.”
- **Self-reflection:** ability to recognize and explain their artistic choices.
- **Writing:** using performance to generate ideas for strengthening a story, adding details to a story, the narrative dialogue transition -- moving from reading a third person narrative to writing a first person dramatic text, understanding story sequence, creating structure in a story, brainstorming, the amount of writing students do and the ease of writing: “They were intimidated by a full piece of paper . . . now they can knock off a whole piece of paper and turn it over and do the back side, too. . . . It used to be that they’d have to write. Now they just walk in, they pick up their journals, they sit down and start writing. I don’t even have to put up a minimum number of words. I used to. I don’t do that anymore.”
- Moving from focusing on the number of words to expressing feelings in writing.

Use artistic media to express relationship of ideas and feelings. Students help develop dance sequence to express their experience of moving to a new school, express ideas such as chaos and breakdown. Students develop tableaus to convey ideas and feelings from their narrative writing. Students communicate effectively to an audience.

Working collaboratively. Listening and giving suggestions.

Indicators of Academic Learning Demonstrated in Students' Artistic Production

Conceptual understanding. Successive drafts of students' bragging poems indicate that they came to understand the concept of bragging. They became more specific about the quality they were bragging about and their claims became more exaggerated. This is an example of how teachers could use students' artistic production, such as poetry writing in this case, to assess student learning in academic areas.

CHICAGO: EMERGENT ASSESSMENT IN ARTS-INFUSED ELEMENTARY PROGRAMS

Two Chicago schools were chosen for the project from the Chicago Arts Partnerships in Education program (CAPE). Sites were found through CAPE by sending out a call for proposals which produced several responses.

The Schools

The stated mission of CAPE is to “serve students by advancing the role of the arts in K-12 public education”. Through partnerships between artists and teachers the arts are integrated into the overall educational program of participating Chicago public schools. The two selected Chicago schools were very different in student demographics, neighborhood, education program, and character. Both schools have participated for several years in the CAPE program.

Montezuma is a small south Chicago elementary school (K-8) dedicated to integrating specifically Mexican arts and culture into a unique and innovative academic experience. School enrollment is just under 300 comprising almost exclusively Hispanic students (98.6%) with most of these of Mexican origin. The parent group is predominantly low income (97.5%), and the mobility rate is relatively high (18.7%). Montezuma has a full-time staff of 23, which includes teachers, teacher assistants, and administrative personnel. The average class size is relatively low (20-25) students. It is a neighborhood school, serving students who reside within its neighborhood boundaries. The school looks as though routine maintenance needs to be done to

the fabric of the building. Concerns about gang violence are prevalent, but the general tone of the school population is upbeat.

Montezuma is committed to developing fully bilingual/biliterate students. Both the English and Spanish language play significant roles in the lives of students and are maintained in the educational curriculum from kindergarten through eighth grade. One teacher and one artist participated in the project. The teacher, Maria, was a young enthusiastic professional with three years experience, had limited background in the arts, but demonstrated a strong interest in developing student involvement in artistic learning. The artist Mora, was a filmmaker/photographer who had been working with the CAPE partnership program at Montezuma school for several years.

Nathaniel Elementary is located in a lower middle socio economic area (low income parents 24%) north of the Chicago city center. It is a K-8 school with an enrollment of approximately 550 students. Student profile is mixed with the majority white 44%, African American 26%, Hispanic 24%, Asian 6%. Mobility rate is low at just over 1%. Average class sizes vary from 25-30. Only about 3% of students are classified as limited English proficient. The school is committed to academic excellence with a strong record of achievement in the Illinois State Achievement Tests. The building is old, constructed in the thirties, but is reasonably well maintained. The feel of the school is of a lively learning environment with various student exhibits displayed in the hallways.

At Nathaniel, two teachers and one artist participated in the project. Alicia, the teacher recommended by the CAPE Director was an experienced professional who has been working in the arts partnership project for ten years, but admitted lack of background in the arts. Derrick was a teacher who was interested in the integrative aspects of the learning unit. Veronica, a dance artist, was an experienced participant in the arts partnership program with a long association at Nathaniel school.

Data Collection

Both university researchers worked at both school sites. The dominant research strategy was participant-observation, which involved the researchers in classroom observation and professional development related to assessment strategies. Interviews of each of the teachers and artists were conducted and group interviews were held at the end of the project. During some of their visits to Montezuma, the university researchers were accompanied by a Spanish doctoral student who translated and aided with interviews.

Written documents about the schools and the curriculums were collected and each of the professionals sent regular e-mail journals to the researchers. Data were also collected in the form of student art and reflections. Visual data were collected in hardcopies, on videotapes, and on a DVD. Six visits were made to Nathaniel Elementary and seven to Montezuma. Two group meetings were held off site.

Professional Development

The professional development discussions emerged at the request of the teachers and artists. Based on those requests, the researchers discussed ways in which arts assessment had been done in the past. The researchers introduced new information about assessment, including concepts of benchmarking and critical reflection, and discussed felt understandings about what was valuable in student art.

Learning Units

The researchers asked the teachers to focus on specific curriculum units for the project. These were lengthy, thematic units on topics the teachers believed would be of interest to the students and that were tied to social studies and science assignments.

Nathaniel: The whole of Nathaniel Elementary focused on the Chicago River as a theme for curriculum during the research period. Veronica, the dance artist, worked with the teacher and students to develop a dance and theater performance about the Chicago River involving the whole third grade. The project involved art, science, and social content as well as reading, writing, and math.

Montezuma: Students worked on the theme of immigration, connected to a social studies project. Mora, the artist, used video for her work employing stop action animations with the students to construct visual stories based on immigration experiences of their family and friends. For their videos, the students worked in pairs or small groups to develop storyboards and then draw, color, and collage their backgrounds and animated figures. The students developed language and social studies skills in connection with the animation project.

Assessment Practices at Project Start

In the Chicago school sites, the teachers and artists were remarkably similar in their outlooks about assessment, albeit from different perspectives. Although they all agreed that assessment of student work was important, these artists and teachers felt that they lacked something in their abilities to assess art-based learning. They did not feel prepared to undertake aspects of what they saw as the difficult job of making judgments about children's art. Both the

teachers and the artists showed concerns about assessing art and non-art knowledge using artistic production as evidence of learning.

At the beginning of the project, Alicia felt particularly strongly in her belief that she should not assess student art. Although she had no qualms about assessing math, science, or reading, she stated that she felt uncomfortable in making judgments about student art because she assumed that all students should be told that their art was good. She was concerned that criticizing art would stifle students' creativity.

In contrast, the artists were less concerned about the fragility of students in relation to assessment and more concerned about their familiarity with student-appropriate assessment procedures. The artists felt confident that they knew what could (and should) be learned about art and had the vocabulary to talk about it with the students in constructive ways so that students did not feel unduly criticized. But, at the beginning of the project, the artists tended to focus on those aspects of art that could be most easily assessed, such as formal and technical knowledge. For example, Veronica stated that prior to the project, what she thought of assessing was the following: "I guess more sort of test questions: Can you identify this? ... identification questions."

One of the teachers at Nathaniel, Dedrick, took an approach to assessment that focused on testing non-art knowledge. Although he valued art as a support of non-art learning for, for example, motivational purposes, he had not previously considered the idea of assessing student art to discover student art or non-art knowledge.

The issue of selecting and articulating appropriate criteria for student assessment was problematic at the beginning of the project. At one of the project meetings, Maria, the teacher in Montezuma, gave an example of an occasion during which she and the other classroom teacher assessed student art connected to an interdisciplinary assignment. She talked about the process of looking at the work and sorting it with the other teacher. However, she had discovered, to her surprise, that she and the other teacher had major disagreements about which work should be sorted into which assessment piles. She suddenly realized that they were each using different criteria for judgment and explained that the process had been difficult because they had each had some difficulty articulating their criteria for judgment to each other.

From the beginning of the project, in contrast to Alicia and Derrick, the artists were comfortable motivating the students to continue and improve their art through commentary, demonstration, and other methods that suggested they were making critical judgments. Although such formative critique was ongoing to improve the quality of artistic production and non-art

learning, at the beginning of the project, neither artists nor teachers intended to summatively assess the students' production in order to demonstrate the gaining of art or non-art knowledge.

Additional Art and Non-Art Knowledge Not Assessed at Project Start

A lack of knowledge about what can be learned about art and assessment in the arts was foundational to these beliefs and practices. For example, because the artists and the teachers had different understandings of assessment in the arts, Alicia relied on common misunderstandings, and what might be considered mottoes, that lead her to believe that judgment stifles creativity. Maria, who had greater confidence at the start of the project, still felt that she could only assess subject matter outside of art, while both Mora, the artist who worked with Maria, and Veronica at the other school, felt that they tended to assess the formal and technical aspects of the artwork. As a result, although these partnerships worked well in the sense that the artists and teachers each had important supporting roles, knowledge concerning the connection between the art knowledge and the non-art knowledge was not considered as a result of the assessment practices.

Alicia in Nathaniel was particularly vocal about the problem of assessing student arts-based learning. She felt that she always had to tell the students that their artwork was excellent in order to support their attempts and wondered if assessing their art would in some way actually hurt the students. Midway through the project, she wrote in her journal,

Well, I took a big step in assessment this week. The students were working on a piece of artwork. It was a self-using torn paper. Looking at each piece of art, I decided if I felt the child needed to add to the piece. I admit I felt guilt making the judgment but I did some "sweet talking." I simply told the children that I felt that they probably need some more time, so if they wanted to stay in at recess or come in early in the next day or two, that would be fine. Most happily took me up on the offer. The difference between the stages of completion was amazing. The details added made each portrait so much better in both my eyes and the children's. I know this seems somewhat silly but I think that it as a god first step. I feel much more at ease putting the portraits up for all to see with their poetry after the additional effort. I think the children --- especially those who put forth additional time --- are proud too...I think this experience has made me more willing to take the next step in judging within assessment in the arts.

Part of the problem was a result of the complete separation of art skills and content knowledge in the minds of the teachers. Derrick struggled with ways to assess both types of learning using a rubric. He wrote this in his journal:

My question is, how much am I to grade on the neatness and creativity of a certain poster and how much weight should I give to that part of the rubric? Should I put more emphasis on the actual poem where they had to use vocabulary from the book or should I weigh each fifty-fifty. I don't know. I finally decided to have each part worth the same amount of points. I still am not sure what to do with the students who wrote an excellent poem but [whose] actual artwork was sketchy. Do I penalize them for putting more thought into their poems and not their artwork? My fear is that a parent comes in and complains that their child is being graded on science material and not artwork.

As the project progressed, the artists and teachers began to see more connections between art and non-art knowledge. At Montezuma, the artist and teacher began to attend to learning that came as a result of the connection between art and non-art knowledge and went beyond general ideas of self-esteem. For example, several of the students learned leadership skills as they worked in their groups on their video animation. The students who did particularly well in art and felt comfortable with it, often students who were unsuccessful on other areas of learning, were the leaders of their groups. The students learned that expertise in art was a factor when determining leadership, but that groups still had to negotiate as they worked (even in the face of respected artistic skill) in the development of the meaning of the video. The teacher and artist at Montezuma assessed this through observation.

At Nathaniel, Veronica said that she just started thinking about assessing aspects of art other than technical skill during the project, in part as a result of conversations she had had with the artist from Montezuma.

I guess just hearing their experiences that assessment is about personal growth – I've always put that outside of assessment. Social skills, body awareness, life skills are assessable as curriculum skills...When I started doing this, I just didn't see that as an assessment issue – that wasn't what I was supposed to assess.

According to Veronica, the project had given her license to consider the junction of form, feeling, and knowing as a conceptual location where assessment could take place.

Increasingly, the artists and teachers began to see that the more powerful the art, the greater the evidence of learning. These professionals started to develop an understanding of the range of knowledge that could be assessed in arts-infused education and that the relationship of ideas and feelings is worthy of assessment.

Application of New Assessment Strategies

The new assessment strategies involved five major changes: a) using multiple forms of assessment; b) attaching assessment to curriculum while enabling emergent strategies; c) planning critique procedures; d) using benchmarking; and e) forming collaborative professional dialogue.

Using Multiple Forms of Assessment

Alicia pointed to the problem:

I find that creating this unit is a wonderful struggle. We struggle to find the best way to integrate yet are confident that the integration will produce a strong unit. Trying to find one form of assessment to cover all concepts is going to be a struggle.

As Alicia stated later, “integration utilizing the arts has more personality” and therefore a single form of assessment will not successfully document all the knowledge that takes place. For example, Alicia developed a new oral assessment strategy for some of the knowledge she wanted students to learn about the Chicago River connected to the development of a visual timeline of the river. She wrote:

Children were able to use their own visual memories when ‘interviewed.’ I did enjoy the assessment being oral. It was difficult to cut off the conversation so I could fit all the students in the time I had allotted. I do think I had a better grasp on the knowledge the children had obtained assessing them orally than by a written test. It was helpful when preparing for conferences.

Attaching Assessment to Curriculum While Enabling Emergent Strategies

Some knowledge to be promoted through the planned curriculum is best to assess by attaching assessment strategies to curriculum as it is being developed.

The teachers at Nathaniel did substantial work on attaching assessment to curriculum. They developed a multiple strategies framework and continued to work on it until it ran smoothly. As they worked, Alicia stated:

Assessment in Derrick’s class is going well. Clearly, I am more comfortable with the process. I did make one major difference. I created a written document telling the children what would happen during the assessment and what my expectations/grading would be based [on] ... Parents were notified of the upcoming assessment.

Mora, the artist at Montezuma, said she thought it was “nice” that that she and the teacher did not think of their assessment strategies at the beginning of the unit and that assessment was

developed as the unit developed. “It allows me to think about new areas to assess... We’re going to decide what to assess when it’s finished.” She felt that outside influences determine student learning in both positive and negative ways and that this is something that has to affect assessment. For example, one of the students’ brother’s was killed in gang violence during the period of the project. The student was out of school for some time and when he returned, he would not work with his group. He started to design a new storyboard that did not focus on immigration and he would not have time to complete as a video, but the artist and the teacher agreed that the student demonstrated knowledge of the power of imagery in the representation of ideas.

Part of the process of assessment became an interest in the ways in which student learn. The teachers and artists began to develop an interest in not only what students learned, but how they learn and developed some emergent strategies have involved asking students to reflect on their learning process. The teacher at Montezuma became interested in Gardners’ Multiple Intelligences and worked to apply the theory to her practice.

Planning Critique Procedures

During the process of production in both schools, the students were involved in continual critique, originally initiated by the artists or the teachers, and then initiated by the students. However, this developed differently in the two schools and we observed and documented the process by which the critique was handled differently by artists and by teachers. In Nathaniel, at the beginning of the project, the teachers taught the content and then the artist critiqued the students’ artistic production while the teachers gave “moral support.” The artists tended to emphasize criticism of formal and technical aspects of the production and the teacher tended to make comments on the content of production.

However, by the end of the project, the teachers and artists began to move toward each other in their assessment strengths. After interviewing the third graders about learning documented in their art, Alicia stated:

Some of the art, I found vague or (dare I say) sloppy. But when I asked them questions, most of them could interpret their art in order to help respond to my questions ... I sensed that the incorporation of the visual art within the unit and the use of the familiar and individual art during reviews throughout the unit truly made an impact.

In Nathaniel, the teachers and artist met together with the students after the performance “to debrief.” In Montezuma, the artist and teacher conducted a large group critique together, which was not originally planned as part of assessment, about half way through the project.

More said explained what she began to consciously look for in the students’ work:

What I value most in student artistic production is the change that occurs when a student takes ‘ownership’ of their creation ... some students are now desiring to create animation on their own, with their own rules, on their own time and no longer see it as an ‘assignment.’ ... They are using my guidance – but have broken away from the (sometimes unconscious) limits that I have put on the assignments. They are creating their own art. ... I judge a student for how much of him or her is ‘present’ in their work. This also speaks to purpose and intention of the work.

From an arts-infusion perspective, that presence is a way of revealing knowledge.

Using Benchmarking

The teachers discovered that developing only textual assessment strategies to assess the arts may make assessment more difficult. Although rubrics can help, the fact that they are written as texts limits their use and the wide range of interpretations of the words may allow students to remain unclear about expectations. As a result, benchmarking by attaching quality to a small, rank-ordered body of student work and then using them for comparison in making judgments about a larger body of work is probably the best way to assess, even when using a rubric.

Forming Collaborative Professional Dialogue

The artists and teachers found that their professional dialogue benefited them in thinking about assessment issues and protocols. Such dialogue keeps teachers from falling into the trap of believing that assessment of art is personal and subjective, enabling and empowering them to conceive of judgments about student art as being based on professional expertise. This is the way judgments about art are made in professional arts communities. Knowledgeable people discuss and debate quality.

Maria wrote extensively on the reasons for developing professional communities for assessing student art:

Dialogue among colleagues is particularly crucial with regard to assessment of art and arts integration. On a practical level, because of the overwhelming, and wonderfully messy nature of

the task, we need others to give us perspective, new ideas, and the feeling of sanity that comes from sharing the struggle of how to do this kind of assessment well.

Maria explained that several conditions limited, or even prohibited, the kind of discourse among teachers. She stated:

Teachers aren't generally trained to talk with each other about our practice. Tradition has us working individually, isolated in our rooms, without other adults available for consistent dialogue. We're told that collaboration is good, but teacher ed. programs often don't offer training in HOW to do it well. We need to practice talking constructively about kids, our experiences, our doubts, our revelations, and schools need to structure/support time for this. ... As the kids need to be taught how to articulate their reflections, we need to get better at articulating ours.

As Maria reflected on the difficulties of developing assessment communities, she addressed reasons that such communities were important to professional development. She explained:

We don't have strict equations for success in art, nor do I believe we should. It is a fluid and constantly evolving process. ... That is not to say that rigor and standards for success would be abandoned, but that rigor and standards must be revisited regularly so that they retain their meaning and relevance.

CROSS SITE FINDINGS

Four of the teams created a tool or process to assess what students were learning through their artistic production. The formats of these assessments are quite varied due to the nature of the settings and the different dispositions of the participants.

Two teams in one city came together to hold a student work conference to review the artistic work of a sample of low, middle, and high achieving students in their classrooms. Participants reviewed the body of work from each school, identified types of evidence that indicated growth in student knowledge or understanding in the art discipline, and developed consensus on criteria for determining the level of growth shown by individual students.

A second team constructed a set of reflection questions to collect information from students about their experience in an interdisciplinary dance/theater/creative writing unit. Students wrote individual responses to each question after the interdisciplinary unit was completed and then the team analyzed students' responses to identify common themes.

Although the remaining two teams were not able to develop and try-out an assessment strategy during the study period, they generated ideas about what arts learning could be assessed in these contexts.

The original research questions produced insights into the following four issues.

Teachers' and artists' values in arts infused learning.

What do teachers and artists value about students' learning in arts infusion programs? It was clear that the learning attributes artists and teachers valued most in arts infused programs *were not necessarily those they formally assessed*. At the beginning of the project teachers and artists in all three sites tended to focus their assessment attention upon the areas in which they *felt most comfortable* or those that were *most easily assessable*. In Minneapolis the formal assessment focus rested almost entirely on non-art academic performance because that was the most familiar mode of assessment and the intention of the AAA project was to improve academic achievement scores through arts infused experience. When study data revealed the variety of possibilities for students' learning in the arts the teachers and artists were able to provide data to support their informal observation of arts learning. They then expressed interest in developing strategies to assess arts learning outcomes but had difficulty identifying which arts learning should be regarded as most valuable.

The New York artist reported the standards of her arts organization drove her formal assessment of art learning. Other qualities she valued such as creative application, self directed learning, risk-taking, and self-assessment, among other things, were not formally assessed but embedded within her instruction. Her teacher partner in New York paid assessment attention only to writing and social growth and speaking which were the areas she was most comfortable with. Integrated learning of art and non art knowledge was not assessed.

In Chicago at the project start teachers said they did not feel equipped to make judgments about children's art products, while artists tended to focus upon formal and technical knowledge and testable content knowledge. Selecting and articulating criteria for assessment of art learning was problematic. While artists and teachers indicated their understanding of the value of students' developing awareness of the relationship of ideas and feelings through arts performance they did not, at first, attempt to assess this. Nor did they formally assess other complex art learning which they indicated was of value to them.

Teachers' and artists' attitudes about their assessment capabilities.

There is reluctance or even a fear of assessment, especially of assessing art, even among the artists. Most of the teachers and artists prefer to avoid formal assessment in the belief that it either does not assist the learning process, or worse that assessment of arts learning may in some way harm students psychologically. While both teachers and artists feel an expectation to assess arts learning the more important questions concerning them are those dealing with curriculum planning, practical issues of implementation, and the needs of specific students. Lack of

confidence in assessment tends to background assessment issues so that they are not considered part of the real business of planning and teaching.

Teachers' and artists' ideas about the purpose of assessment.

Contexts, such as standardized tests and externally imposed assessment procedures, get in the way of teachers' focus on students' learning in the arts. Minneapolis teachers were distracted by the project intention to improve academic scores on standardized tests and the constraints of time to actually assess arts learning. Development of rubrics for all the possible art, non-art and integrated learning outcomes meant priorities had to be set for the most urgent assessment information which was academic outcomes.

New York teachers felt overwhelmed by the imposition of external assessment instruments and the requirement to keep portfolios. Satisfying external assessment demands distracted them from paying attention to the learning issues of most immediate concern to them. Chicago teachers were concerned about doing well on the Illinois state achievement tests (ISAT). The school has a good history of strong achievements which forms part of the public profile of the school so teachers were very conscious of pressure for students to do well in these.

Teachers' and artists' conceptualization of the process of assessment.

At the beginning of the project, when assessing, most artists and teachers tend to focus on the product rather than the process, and tended to focus on the quality of the art rather than the quality of student learning that occurred. Also when assessment of arts learning is done, it is done separate from the other subject area(s) included in the interdisciplinary curriculum and the assessment focuses on what is easy to assess – formal and technical information, rule following, hard work – rather than what is important to assess – aesthetic decision making, for example. Most formal assessment was done because it was expected rather than as a real desire to improve understanding of student's progress. In fact some of the project participants said they would prefer to avoid formal assessment.

As the project progressed teachers and artists on all sites discovered multiple possibilities for more meaningful assessment of the arts. These included reflective strategies, multiple methods, relating assessment to curriculum to enable emergent strategies, benchmarking, and collaborative assessment. There were some commonalities across sites and some differences in the content but the clear outcome was that discussions between project researchers and professionals resulted in significant improvement of the insights about assessment processes and purposes in both teachers and artists.

CONCLUSIONS AND RECOMMENDATIONS

Teachers and artists need help in conceiving and conducting assessment in the arts. During the course of the project researchers were called into service to do more professional development than was originally planned. As the project progressed teachers and artists discovered many new and constructive possibilities for assessment strategies. Following is a summary of the four major conclusions from the study and recommendations implied by them:

First, teachers and artists do not formally assess what they value most in the arts. Both need some form of in-service assistance in coming to understand that the complex arts learning they value and (with assistance) are able to identify can and should become part of the formal assessment process in integrated arts learning contexts.

Second teachers in particular are not assessing arts learning because they don't feel confident to undertake it. Teachers and artists alike were mindful of their own lack of preparation to conduct meaningful assessments and were anxious for assistance. Most were, on the whole, either fearful or dismissive of assessment and tended not to regard it as an integral part of the curriculum. This follows from a lack of understanding of appropriate assessment strategies that can embrace complex arts based learning outcomes and subsequently enhance the educational program. Artists, while more confident in assessing arts learning tend to focus on lower level outcomes such as formal and technical understanding or easily tested outcomes. Again in-service assistance is necessary.

Third teachers and artists do not fully understand the role and function of assessment in the arts. Formal assessment is seen as an administrative requirement separate from the curriculum. Imposition of assessment instruments or portfolio strategies by outside agencies were not regarded as helpful, and were regarded as peripheral to the teaching task. In-service discussions resulted in teacher and artist understanding of both useful assessment practices that make a positive contribution to curriculum and student learning.

Fourth teachers conceptualize arts assessment as subjective and therefore problematic. Collaborative assessment discussions conducted during the project showed that teacher and artist expertise, when shared, resulted in meaningful and useful assessment judgments. Collaborative discussions when conducted with a view to benchmarking complex learning outcomes resulting from arts instruction produced changes in the understanding of both teachers and artists about the assessment value of their insights. Institutional structures that facilitate and enable collaborative assessment between teachers and teachers and artists is necessary to improve assessment of the arts.

There is a clear need for some sort of institutionalized process that will facilitate teachers' and artists' examination of student work together so they have time to engage in the process of authentic assessment through discussion and peer support. The arts when properly taught promote individualized learning, purposeful investigation across disciplines, and risk taking by students which frequently results in work that is difficult to assess. In the broader community the arts are assessed through a process of social discourse. There is no reason why this should not be the case within educational contexts as well. It seems that one of the great potential benefits of arts learning partnerships has been overlooked when it comes to assessment of arts learning. As one of the Chicago teachers said "arts learning is best assessed by a community of interested people".

This study provides a critical step forward in improving the assessment of student arts learning in interdisciplinary curriculum. The assessment of student learning through their artistic production is important not only for determining what students are learning and the effectiveness of interdisciplinary curriculum, but also for our ability to unravel the complex relationship between learning in the arts and learning across the curriculum.

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APPENDIX

