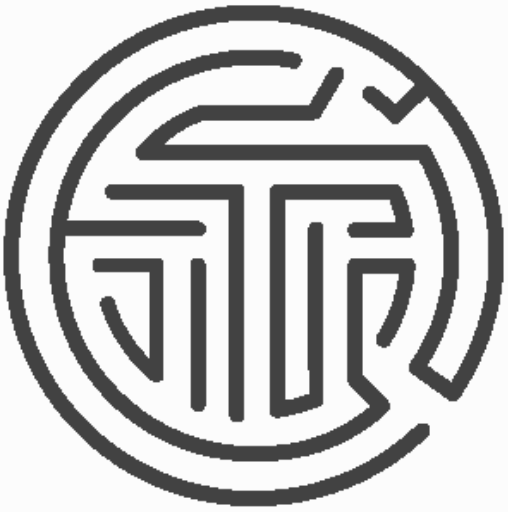
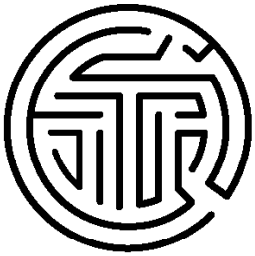


CONTEXTUAL ARTS EDUCATION ASSESSMENT:

COUNTING IN CONTEXT

CENTER FOR CHILDREN & TECHNOLOGY



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CONTEXTUAL ARTS EDUCATION ASSESSMENT:

COUNTING IN CONTEXT

PREPARED BY
TERRY L. BAKER

ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, SEATTLE, APRIL 2001

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Should we attempt to assess or evaluate arts experiences?

Can we assess or evaluate aesthetic experience? What do numbers, measurement, and accountability have to do with arts education? Should research in the arts or education follow the established dictates of experimental science—control groups, statistical probability measures, researcher distance or "objectivity?" Can arts experiences be "generalized?" The answers to these questions are, of course, both "yes" and "no," or "nothing and a great deal."

Educators in the United States often wish for an educational system in which the curriculum is sequential, comprehensive, and standardized across school districts or even across the nation. Such systems exist in other more homogeneously populated nations, but it never was in this nation, and probably won't be in our lifetime. Whether that is a good thing or not is beside the point. The reality of education in the American context is, in Gardner's terms, "highly dispersed, with each of the 50 states and many of the 16,000 school districts having their own programs." Gardner reports that " 'Context' has not been my favorite concept, but I have gained a new respect for its importance."[1] While he is referring to in-school curriculum arts, when partnership arts in education programs are developed by schools and cultural organizations jointly, the contextual nature of the work takes on new and more complex features. Even in more traditional school arts curriculum projects, the more innovative programs cannot assume, "…a familiar and supporting context,… [they] must in part create a new context."[2] It has become increasingly important, as partnership program have expanded with renewed funding to account for contextual elements in our assessments of student learning and our evaluation of instructional programs. The ways in which contextual variables are incorporated into instructional designs and evaluated by researchers have become the defining elements in measures of success. Those measures of achievement, impact, or operational implementation that do not account for complex sets of variables are judged to be incomplete or inadequately designed. Just as it is important to design arts education instruction around those characteristics of the arts and arts experiences that are necessary for their definition, so is it important to evaluate arts education programs according to those contextual variables that are necessarily part of their definition. If such programs "must create a new context," then our research and evaluation efforts must attempt to document and account for the ways in which the new contexts are shaped by the programs. Such research should, as Winner and Hetland say, "…explore the ways in which the arts may change the entire atmosphere of a school. This way we can begin to understand how the arts affect the 'culture of learning' in a school. We can then develop rich, qualitative measures to evaluate whether the arts lead to deepened understanding of—and engagement in—non-arts areas."[3] The evaluation work described in this paper is aimed at creating the kind of rich documentation of context variables in an elaborate partnership arts in education program and they ways that students, schools, communities changes in response to these new combinations of variables.

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[1] Howard Gardner, "Rejoinder to Steers," in Evaluating and Assessing the Visual Arts in Education. ED. By Doug Boughton, Elliot W. Eisner, and Johan Ligtvoet, New York: Teachers College Press, 1996, p. 104.
[2] Ibid. p. 104.
[3] Ellen Winner and Lois Hetland, "The Arts in Education: Evaluating the Evidence for a Causal Link," Journal of Aesthetic Education, Vol. 34, Nos. 3-4, Fall/Winter 2000, p. 6.

Many attempts to evaluate the impact of arts education on students have focused on student achievement, development of vocabulary, or reading comprehension scores (DuPont, 1992; Gourgey, Bosseau and Delgado, 1985; Hudspeth, 1986; Kardask and Wright, 1987.) These studies, which have found positive effects on test scores, are based on well integrated curriculum or artist-in-residence programs. Many other studies, however, have not found positive effects (Lauder, 1976; Miller, Rynders and Schleien, 1993; Trusty and Oliva, 1994). All of these studies focus on transfer effects and measure change in terms of the receiving subject area—reading, math, sometimes science. Few studies attempt to define transfer in terms common to the arts. Music is something of an exception in that mathematics and music have some commonalities, and research on the physiology of the brain has identified some physical changes that result from the practice of music.

In any case, all these studies have attempted to find ways of quantifying the data collected. That means, of course, that the researchers must either start with data that is clearly quantifiable or discover new ways to quantify information that has not been seen as quantifiable. This researcher has received two recent reports that talk about the "countless" ways that certain social or human characteristics are reported in the studies. The word "countless" is a difficult one for researchers to accommodate, yet that is what much recent educational research has had to do, accommodate variables almost beyond number. Once researchers move from easily observable, countable phenomena such as the number of subjects who spell a word correctly, the amount of time spent on a task, the quantity of paint used to cover a given area, they enter scarcely charted arenas.

There is one major reason to enter these arenas, because the phenomena researchers have been able to count turn out not to count for much in the overall scheme of things—the famous Einstein dictum, "Not everything that can be counted, counts." The kinds of things that we have been able to count in education—scores on reading and math tests, attendance, responses on attitude surveys—have some, but limited, importance in the overall definition of human beings. And, in the history of education in this country, the sum total of all the counting has been that researchers generally conclude that our educational system is failing our children and our nation. Is it possible that by insisting on counting-house answers, on bottom line accountability, we are asking the wrong questions, focusing on the wrong topics, and "counting" in the wrong ways? Where in all those measures of education are our measures of emotional responses, sensory discrimination, or the creation of new meaning? How, in all our measures of frequencies, do we measure countervailing forces of sensation or understanding? How often do we suspend our calculation of standard deviations to measure the impact of long-term involvement in the arts on lives, emotions, and relationships?

Most of our ways of counting in education in the middle third of this century were derived from psychology and follow the dictates of probability theory. [I have always thought that the theme song for probability theory should be Chances Are, and the musician of record Johnny Mathis.] The meaning of our counting derives from the spread of our count over a thin layer of the broad population and the application of statistical procedures more closely related to games of chance and Las Vegas than to schools to artificially give the count "depth" or significance, the mathematical language of the crap shoot. Thus, the theory goes; we can predict deep consequences from shallow measures.

In a movement that began with the work of some anthropologists—chief among whom was Clifford Geertz—and some social psychologists, educators have taken some new ways of counting from ethnographic studies. Geertz recommended that we try to do "thick descriptions" of complex phenomena rather than thin ones. He reasoned that we would be better off—have more sure knowledge and understanding—if we looked deeply into a few situations rather than to try to predict deeply from surface views of many situations. Educational ethnographers have taken his concept to heart. They have said that we need to know more about the core structures of education and less about the topology. In their view, we need to accumulate many thick case descriptions and begin to count the characteristics of that accumulation. Social and cultural psychologists have departed from the practices of cognitive psychologists by describing learning in terms of complex interrelationships among groups of individuals in a variety of social contexts instead of in terms related to invisible processes inside the heads or some other part of the bodies of individuals. The kind of counting that these researchers do seems to me to be more closely akin to the mathematics of engineering, design, and mapmaking than to the mathematics of probability. The trigonometry of vectors, forces, influences, and the relative strengths of structural components used by those attempting to create bridges, buildings, and navigational tools seem to me to be more closely related to the design and implementation work of educators and artists. If we have to count, and I think we do, we need to find more appropriate counting tools.

For researchers concerned about the arts and other "hard to count" subjects, these new approaches are promising. So much of art is about relationships among various experiences that efforts to count brush strokes, arpeggios, or the number of seats in the seats that characterize much arts related research seem to trivialize the subject. As has been the case with much of the rest of our educational program, the curricula that have been created to produce "acceptable numbers" have also been trivial and have aimed at the lowest levels of human skills, knowledge, and aspiration. Asking different questions that can be counted in new ways opens up possibilities for new dimensions in curriculum. We can talk about "understanding" instead of just "knowledge" or "information." We can talk about "problem solving," "creative thinking," "interpretation," "understanding complex inter-relationships, and the development of "active learning strategies." We can ask about sensory, emotional, or values responses. All of these things are high on the list of things deemed important to our industry and our economy, but seldom found in the fundamental curriculums of our schools. They are all part of the arts and of good arts education, but they cannot be counted in traditional ways.

During the last quarter century, education began to undergo a sea-change in basic conceptions of how learning occurs as neurology, anthropology, and psychology offered new evidence on how the human brain works and how social and cultural contexts provide necessary linkages for thought and learning to exist. Contextual understanding emerges from knowing and learning through shared activities and experiences and helps define knowing and learning as "…synonymous with

changes in the ways that an individual participates in social practices."[4]. Such thinking is taking hold in the psychology and education research communities, is stimulating new research, and is provoking new debates about the nature of learning and appropriate kinds of instruction.[5]

EDC/CCT researchers are seeing and documenting that working in groups, in networks of supportive peers and adults, and in situations that illustrate and build upon collaboration between agencies, organizations, and institutions helps young persons develop. As Salomon states:

> *People appear to think in conjunction or partnership with others and with the help of culturally provided tools and implements. Cognitions, it would seem, are not content-free tools that are brought to bear on this or that problem; rather they emerge in a situation tackled by teams of people and the tools available to them.*[6]

As we see more complex collaborative partnerships comprising new contexts for arts education and school change, we see adjustments in the structure and delivery of instruction, and the creation of new student performance indicators and collaboratively developed standards of achievement—engagement, understanding, performance, and aesthetic responses.

Contextualists choose to focus, instead, on the external experiences and behaviors and define experience in terms of "events" which

> *...have a quality as a whole. By quality is meant the total meaning of the event. The quality of the event is the resultant of the interaction of the experiencer and the world, that is, the interaction of the organism and the physical relations that provide support for the experiences.*[7]

In our work at EDC/CCT, we are trying to find appropriate ways to record these experiences or events, or, perhaps more appropriately, new ways to pay adequate attention to them. We are just at the beginning of the work and have undoubtedly made many missteps already, but there are signs of promise also. If, as we believe, more appropriate questions lead to more appropriate answers, what are defines "more appropriate questions?"

Design Research

The EDC/CCT arts research team describes its work as "design research" following the agency's tradition of such research work on media projects with Children's Television Workshop and at Bank Street College. The approach is and expanded type of "formative" research that is aimed more at being helpful or useful to program designers and creators than at providing final summative judgments about the quality of a product or work effort. The evaluation work described below is all

[4] Paul Cobb and Janet Bowers, "Cognitive and Situated Learning Perspectives in Theory and Practice," Educational Researcher. Vol. 28, No. 2, March 1999. p6.

[5] Key studies and reports that identify points of connection or linkages in student learning and development learning and identify understanding as the ultimate outcome include: Jean Lave's Cognition in Practice: Mind, Mathematics and Culture in Everyday Life; Howard Gardner's Frames of Mind: The Theory of Multiple Intelligences; Allan Collins et al."s "Cognitive Apprenticeship: Teaching the Craft of Reading, Writing, and Mathematics;" Roy Pea's "On the Cognitive Effects of Learning Computer Programming; "Renata and Geoffrey Caine's Making Connections: Teaching and the Human Brain;" Lauren Resnick's Education and Learning to Think.

[6] G. Solomon, ed. (1993), Distributed Cognitions. Cambridge, UK: Cambridge University Press. p. xiii.

[7] J. J. Jenkins, (1974), "Remember that Old Theory of Memory? Well, Forget It!" American Psychologist, 11, p. 786. In W. J. Clancy, (1997), Situated Cognition: On Human Knowledge and Computer Representations. Cambridge, UK: Cambridge University Press, p. 63.

long-term – ten years with SIAS, six years with MTC, and five years with each of CAE and ESP.

We begin by asking, "Who should ask the questions?" Such a design question encompasses crucial issues about the nature of expertise and subject matter or discipline-based relevance. Historically, research deferred to academic scholarship, particularly discipline-specific scholarship to define sources of expert knowledge. College professors, research scholars, or think-tank employees are recognized experts. In our work, we define practitioner knowledge—the special knowledge of the artist, teacher, or manager derived from hands-on work in the field about what materials, resources, time allotments, space requirements, grouping priorities, emotional attributes, social or political considerations work or seem to work in the situation—as expertise. Then we move to scholarly expertise for reviews or checks of the coherence and comprehensiveness of practitioner knowledge and to refine the measuring tools—questionnaires, surveys, observation protocols. In our Studio in a School study, we began with focus group discussions with teaching artists gathering, among other responses, brainstorming lists of words and terms that had meaning for them about their practice as studio artists. Many of these terms were nonsense syllables. An advisory panel that included Maxine Greene and Ann Lieberman, scholars in different fields, analyzed these terms in to help the research team define observation protocols for identifying related elements in the studios and classrooms of the project. The result was the creation of observation tools that allowed researchers to collect "countable" data that were related to the values, intents, and practices of the teaching artists rather than to some "objective" or scientific set of values defined by distant others.

In the Manhattan Theatre Club studies, we worked with MTC education staff and teaching artists as they defined the curriculum and wrote the syllabus for their on-line instructional program, designed suitable evaluation tools for students and teachers and prepared the staff itself to conduct on-going formative assessments of their work. In doing this work, the MTC staff considered theory developed by educational theatre scholars and rubrics developed in other programs to check their ideas against others, but, in the end, they assumed responsibility for the content and methods used both for instruction at the sites and in the assessment of their project.

The observation guide for the MTC study of the play Proof, provides an example of the extended work done with staff and teaching artists to determine the content of the program, the focus of the evaluation, and the method of gathering data. Observation reports collected during field visits to the TheatreLink program sites across the country are combined with the results of survey questionnaires, interviews, reviews of student written plays and videotaped productions of these plays, and analyses of student essays solicited by the evaluation team to complete the assessment of a year's work.

Our work with The Center for Arts in Education (CAE) on the Annenberg project provided impetus for the expansion of our ideas about contextual arts education. CAE, at the beginning of the program, described its approach to arts instruction as "Comprehensive Arts Education." Over five years, the program was intended to provide students with skills in the separate arts disciplines at

all levels, with experience using arts processes across the general education curriculum, with experience in the forms of artistic expression used by many cultures other than their own, and with the capacity to develop aesthetic values and make their own aesthetic judgments, no small ambition. The Center's view of the arts curriculum, whether in or out of the social, educational, or spatial contexts of schools and classrooms, did not take social settings or situations into special account. It did not look to the strengths of particular partnering cultural organizations, but rather to an established ideal, comprehensive arts education. To this point, CAE's conception of the kinds of arts programs they would support was not much different from conceptions of traditional curriculum arts programs or of most arts education advocates.

"Comprehensive arts education" is a term that has been used for several years in arts education. The term indicates that the component parts of the instructional program are interdependent with each one being essential to realizing the goals of the others. The term has also been used to indicate that arts instruction should be available to all students, and sometimes that instruction in all the arts should be available to all students. Instruction following this model is usually intended to follow sequences and adhere to discipline standards. CAE soon came to realize that with the policy, resource, and structural restrictions in post-1975 NYC schools comprehensive arts education demanded far more time, space, and money to deliver than most schools had available.

CAE also recognized that there was no end to the variation of the partnerships it funded and that these variations gave diverse strengths to the program, they did not match a comprehensive arts education delivery mode well. The program is in 81 elementary, middle, and high schools. It is in schools of more than 3,000 and those of less than 200 students.[8] It is in some Coalition of Essential Schools programs, as well as in more traditional schools; it is in Bellview Hospital where it works with high school aged students with emotional, psychological, and criminal disorders. It is in some of the highest performing and some of the lowest performing schools throughout the five boroughs of New York City. The 135 cultural partners range from large, well-known ones like the Metropolitan Museum of Art and the American Ballet Theatre to small, semi-anonymous arts organizations with three to five staff members. It includes cultural organizations that have education programs and organizations that work solely in the realm of the arts. Some of the organizations are very young; some are quite old. The arts disciplines being taught include, but are not limited to, visual arts, theatre, storytelling, poetry, music, opera, costume design, dance, musical theatre and architecture. The arts programming takes the form of year-long art studios, 3- to 10-day arts residencies, one-shot arts performances, field trips, interdisciplinary projects, performance-based projects, and many more. Professional development ranges from the weekly to the non-existent.

The partnership program began to be recognized as is a shift away from the more traditional "delivery mode" of instruction in which specific bodies of information, skills, and types of out-

[8] T. L. Baker and B. Bevan, "School Change through Arts Instruction: Contextual Arts Education in the New York City Partnerships for Arts in Education Program," New Orleans, American Educational Research Association Annual Meeting, April 2000.

comes are defined outside the school to be delivered uniformly. It is now seen as one that localizes the issues and employs resources such as teaching artists and cultural organizations with distinctive skills and missions in the delivery of instruction. Though the shift was more coincidental than deliberate, it marked the initial parameter of a substantial contextual arts education approach, because the evaluators shifted their documentation and assessment focus to the particulars of the contexts and the impact of such particulars on schools and students.

The research team began to address these questions:

1. How does the integration of the arts support school change efforts?
2. In what ways is the nature of arts learning qualitatively different when outside cultural resources partner with schools to design/deliver curriculum?
3. In what ways is school instruction and structure changed by the introduction of the arts and through the partnerships with cultural organizations?
4. Do the arts provoke parent and community involvement in a school—and is this linked to school change?
5. What is the impact (and legacy) of sustained partnership efforts on local cultural organizations?

At a high performing elementary school, the evolution of the CAE funded project mirrored the transition that the CAE program itself went through. The principal brought the Arts Partnership program in to provide her students with sequential arts instruction in percussive instruments in grades K-2 and dance in grades 3-5. From the beginning the principal was adamant that the program would focus on sequential arts instruction and that it would not look to integrating with core curricular areas, where students were excelling. Teachers and some parents initially had expressed misgivings about changing the successful school program in any way.

Teachers, however, were asked to attend the arts classes with their students, as observers. And in time teachers and teaching artists began formal meetings to discuss the types of learning that each saw in individual students, beginning a bridge between the types of learning and performance that students might make in one setting or another. In the third year of the project, the principal decided that she wanted to have a way to talk to the parents about how the arts programs were enhancing student performance and learning in the broadest sense (for example in problem solving, transitions, group work). She initiated, with her project evaluator, a student assessment project to work with two teachers and the two teaching artists to develop rubrics.

The development of the rubrics was done with extensive guidance and participation of the project evaluator. The four teachers and teaching artists made lists of their behavioral learning goals, such as the ones listed in the previous paragraph. The group selected overlapping goals, and then added goals specific to the arts skills being taught. This partnership presents an interesting case of a project starting off with a strict separation between the arts and non-arts, and moving to a place where in some general way they are looking at issues of transfer. Looking for the arts skills

is happening as well, but it appears that the decision to use rubrics, and to do it collaboratively with teachers and teaching artists, was at least in part brought about by a need to communicate and advocate with parents about the place of the arts in the broader school environment.

We feel that our work indicates that it is possible to define manageable dimensions for assessment and evaluation in contextual arts education situations, in spite of the fact that the number of variables seems to grow magically every time one looks. We do not claim to have corralled the pesky critters, but by working with artists and teachers from the beginning, we are asking questions that they see as relevant. As we ask these questions, we are also finding ways to help practitioners and researchers learn more from student work, performances, and products.

Is There Room for Contextual Assessment?

As Dewey said of instructional practices, "there is no one best way,"to conduct evaluations or assessments. We are attempting to extend that notion to the conduct of research on complex arts education issues. Part of our solution has been to conduct our research as close to practitioners as possible, assuming that data gathered in this way will reflect the impact of practice and help us understand how the compromises required in practice affect the students' development.

We recently received a two-year grant from the National Endowment for the Arts, with supplemental funding from the Center for Arts Education, to initiate a focused study with 10 teams of teachers and teaching artists, all of whom have had prior experience working together. CCT's involvement with early situated cognition research conducted by Roy Pea, Allan Collins, and James Greeno, and our participation in design experiments projects with Allan Collins and Jan Hawkins provide an experience base and conceptual rationale for work in richly contextual programs. To appropriately encompass the contextual realities of the participating school arts programs, a multi-disciplinary teams of evaluators, teachers and teaching artists will work together to refine the arts-integrated curriculum and fashion formative, and summative assessments. EDC researchers will serve as coaches, extra hands and eyes to implement the assessment tools, and documentors and analysts of the work.

In this study we plan to document the curriculum development process, illuminate the choices made by the teams, analyze how specific arts domain strengths are drawn upon, document how student learning is monitored, and analyze connections between the curriculums developed and the New York State Arts Learning Standards. We will attempt to document complex actions as they occur in the classroom, and to look at them with the teaching artist and teacher to try to make meaning of them together, to identify patterns, or to illuminate unexpected events. The work has two phases. In the first part, researchers conducted four classroom observations of each team to document:

- specific teaching approaches and attributes that are related to the arts (such as discussion of standards of quality, drawing upon personal experience, hands-on arts-making)
- specific student actions or behaviors that occur in the classroom related to the arts instruction

(such as exhibition of inventiveness, experimentation, perseverance, personal expression, emotion)

- demonstrated levels of student engagement, ability to make connections between the arts lesson and other curricular or personal areas, and understanding of lesson content or goals.

In the second part, slated to occur over two academic years, researchers are to meet with each teacher/teaching artist team to:

- to clarify and articulate their specific student learning goals for the arts lesson;
- to develop embedded assessment tools to formatively develop effective instruction and capture evidence of students meeting these learning goals;
- to identify the Learning Standards implicit or explicit in the lessons.

Intrinsic to this effort is an attempt to work with the teachers and teaching artists to encourage their awareness of their intentions, while continuing to encourage imaginative, flexible, and unique responses to what unfolds in the classroom. What do they want to teach and why? What is appropriate about their art form, or the non-art form in cases of integrated curriculum that brings them together and makes those domains fruitful learning grounds? In answering both these questions, context is all. From that point, the research will illuminate learning goals and the researchers will develop tools for testing the effectiveness of the teaching approaches and of the outcomes.

Data from this study will be joined with our mapping of the development of the partnerships and arts curriculum units in other studies to develop a kind of a branching, looping path, with way points and guideposts, detailing the linking of cultural resources with schools and create a topographical map of student learning in these schools.

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