INTEGRATING PEDAGOGIES AND LEARNING APPROACHES FROM THE ARTS WITH OTHER ACADEMIC DISCIPLINES TO ENHANCE LEARNING

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An Inquiry Project Submitted to the

MAED Program for Experienced Educators

Center for Programs in Education

Antioch University Seattle

September, 2005

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Antioch University Seattle

In Partial Fulfillment of the Requirements for the Degree of Master of Arts in Education

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ACKNOWLEDGEMENTS

I would like to express gratitude for the people and organizations I have been influenced by, in reference to this thesis. Some I have been acquainted with for many years, while others are new acquaintances. I have appreciated the camaraderie, encouragement, instruction, insight and observations shared—on art and aesthetics; on general teaching and curriculum; on culture and creativity; and on humanity. In addition, I've included some organizations which sponsored exhibits that greatly moved me.

The following have been main sources of inspiration for this thesis:
My family; my artist friends; my art instructors at The Burnley School of Professional Art [which has since evolved to become Art Institute of Seattle], the University of Washington, and the School of Visual Arts, New York, Summer Workshop; my Antioch professor for Integrating the Arts Across the Curriculum, and classmates; my advisor and professors at Antioch University; the director, colleagues, and students when I taught at The Burnley School of Professional Art; the director, colleagues, and students in the art department at Bellevue Community college, where I also previously taught; my colleagues in the Society of Professional Graphic Artists; the individuals involved in the University of Washington Screenwriting Certificate Program; all the people with whom I was in partnership at the corporation, as we designed marketing seminars to integrate creativity training with sales training; the freelance talent and studio owners I engaged while at the corporation; my fellow corporate coworkers; Seattle School Board's Alternative Education Committee chair and members; those individuals and groups who put together the statewide ArtsTime Conference; the ArtsEd Washington group; Washington State OSPI, Art Program; Coyote Central; Friends of Flo Ware Park; Spectrum Dance Theater; Aspen, and *How* Design

Conferences; SAM, Seattle Art Museum; MoMA, The Museum of Modern Art, New York; The Art Institute of Chicago Museum; New Orleans Art Museum; Santa Fe galleries; and the Smithsonian's Hirshhorn Museum of Modern Art. I also have greatly appreciated the various authors recognized in the references.

ABSTRACT

Recent studies verify that integrating pedagogies from the arts with traditional academic subjects may be an important factor in boosting academic performance. These studies have quantitatively and qualitatively shown that arts-based approaches to learning not only engage students in important cognitive, affective, and psychomotor learning but also promote cultural and aesthetic enrichment and awareness.

This thesis sought to clarify and understand the attitudes surrounding this issue—its concepts, practice, and the reasons it meets with resistance.

In this report, cognitive learning in both arts and non-arts disciplines was explored as a strategic bridge to use in planning arts integration across the curriculum—also the aesthetic value of balancing cognitive and affective learning methods—how arts integration educates and enriches the *whole* student.

RATIONALE

I believe integrating the arts with other academic subjects unlocks the power of curriculum. The purpose of this report was to understand the full possibilities of learning when pedagogical approaches from the arts are consciously or unconsciously blended with non-arts subjects in an effort to better engage learners. I also wanted to explore the cognitive and affective aspects of arts learning, and the aesthetic reasoning associated with integrated pedagogies. [*Cognitive* refers to rational, analytical, and technical thought; *affective* refers to values, sensitivities, and expressiveness (Northwest Regional Educational Laboratory, 2005).]

Educational Significance

A Largely Untapped Potential Force in Education

In recent years, two studies, Champions of Change (Arts Education Partnership, 1999), and Critical Links (Arts Education Partnership, 2002), have shown that combining pedagogies and learning approaches from the arts with traditional academic subjects such as mathematics, science, language arts, and social studies, can boost students' academic performance. These studies were sponsored by the Arts Education Partnership; The President's Committee on the Arts and the Humanities; the National Endowment for the Arts; and the U.S. Department of Education. Both studies contained qualitative and quantitative data showing arts-based approaches not only engaged students in important cognitive, affective, and psychomotor learning but they also promoted cultural enrichment and awareness. Previous to reading these studies, I had experienced some of this phenomenon in my own learning and teaching and wanted to explore it further.

As a visual artist, the field of arts integration has given me a new view of how the arts can be used to enrich learning. What I discovered has inspired a sense of awe. I now see arts integration as an important tool to help close the achievement gap between disadvantaged learners and those who have no struggle with academics. This research has also led me to embrace drama, music and dance as peer art forms in the arts integration process.

Smaller Learning Environments and Alternative Curriculums

In this thesis I chose to examine integrated arts teaching done in non-traditional educational programs, such as niche, magnet, and alternative schools. I believed that in those alternative settings—in which curriculum experimentation is often done to meet multiple learning objectives—I would find examples of the learning models I sought.

The labels *niche*, *magnet*, or *alternative* refer to schools that use models of instruction differing from those found in more conventional schools. These schools usually have a unique infrastructure, mission, or focus, such as: democratic governance, an arts emphasis, international studies, or multi-cultural themes.

Although the term alternative can be used to describe a niche or magnet school, traditionally, *alternative* school curriculums have been designed to serve students for whom mainstream pedagogies don't work. The students in these schools for one reason or another did not thrive in conventional learning environments. Their needs are better addressed in the curriculums of alternative schools, which offer a balance of cognitive learning experiences and the deep caring and personalization of affective learning (Seattle School Board, Alternative Education Advisory Committee, 2005a).

The measurable academic success students achieve in alternative learning

environments is impressive when previous academic records are considered. National test scores and later success on the college level, and in their careers, have shown these students are capable of performing above average, and in some cases, well above average. Results such as these seem to indicate that effective learning has taken place.

Therefore, within these niche, magnet, or alternative education environments, I was sure I would find helpful practices that might benefit students and teachers in more traditional classroom settings.

Alternative schools are differentiated from mainstream schools by a stress on small learning communities that often feature multi-age, non-graded classrooms. They usually take a constructivist approach to education through inquiry and project-based instruction, and practice alternative forms of assessment. The teacher's role is not as an authority figure, but as a guide or facilitator (Seattle School Board, Alternative Education Advisory Committee, 2005b).

A "Developing Self and Spirit" Curriculum

Historically, the word *progressive* is often associated with an alternative curriculum. In Cultures of Curriculum (Joseph, et al., 2000), Dr. Stephanie Bravmann wrote about "Developing Self and Spirit" as a curriculum orientation that is the legacy of *the progressive education movement* [a European-based, child-centered education philosophy from the early *1900s*].

She described the educational luminaries and beliefs associated with the history of progressive education this way:

The aims of those who advocate for "Developing Self and Spirit" sound remarkably similar in spite of the differences in time and attitude between those

promoting them. They all speak to the well-rounded development of the heart, the body, the mind, and the spirit to the end of lifelong learning; the desire to develop (or retain) the goodness, morality, and ethical foundations for leading a righteous life; and the betterment of the immediate community, society and the world. Fostering both independence and dependability, as full participants in society is an auxiliary but not subordinate goal. It is a given that those committed to "Developing Self and Spirit" conceive of such affirmation without regard to gender, ethnicity, ability, or need. Sometimes markedly similar declarations are evident in historical portrayals (from Plato to Pestalozzi, Hergbart and Froebel, Parker, Dewey, Montessori, Neill, and Steiner), those that are more contemporary (Samples, Pearce, and Greene), and works decidedly modern and postmodern (Moffett, Noddings, Miller).

As comparable as the central goals may in fact be, the major ideas embedded in "Developing Self and Spirit" are, by the very nature of their grounding in the uniqueness of each learner, often disparate. They do however share some basic tenets. . . . They agree . . . that students who are allowed to learn independently and at their own pace willingly channel their energy into learning. Motivation and reward are to the greatest possible degree, intrinsic. (p.75)

[Note: This is true of the arts. They are engaging and represent learning at one's own pace. Motivation and reward are intrinsic, and risk is inherent at every attempt.]

Another shared idea is that mutual trust and respect form the foundation of a true learning community. It is only in such an atmosphere that students are empowered and encouraged to take risks, and to succeed or fail in a setting that

> honors all of their attempts to learn. Most also believe that students helping one another, in community, facilitates both learning and wholesome social interactions, whether under the guise of peer tutoring, cooperative education, or some other rubric. [They are believers] in learner-centered education. (p.75)

In commenting on an example she shared of intrinsically motivated students, Bravmann spoke of their responsiveness this way: "Alfred North Whitehead speaks often of the 'romance' of learning—the fascination that initially wells up when a student is fully engaged, intellectually and emotionally, in the process of learning."

Bravmann gave intellectually nurturing teachers, such as the one in her motivated students example, great credit for understanding "their students' interests and directions of thought, and their own subjects to so great an extent that they could create curriculum that emanated from the learner him or herself" (p.74).

In further developing the historical perspective of a "Developing Self and Spirit" curriculum she quoted John Amos Comenius (1592-1670) who "maintained that it was only possible to learn by doing: 'Artisans learn to forge by forging, to carve by carving, to paint by painting . . . let children learn to write by writing, to sing by singing, and to reason by reasoning'" (p.77).

Along the same lines, Morely [cited in Research Paper (2005)] provided a general definition of alternative education as "a perspective, not a procedure or program. It is based upon the belief that there are many ways to become educated, as well as many types of environments and structures within which this may occur" (p.4).

Progressive Alternative School Chosen As One of the Candidates for This Study

Historically, there have been two types of alternative schools with extremes on

either end of a continuum (Seattle School Board, Alternative Education Advisory Committee, 2005a). A model at one end took a progressive approach to instruction. Its curriculum innovatively supported the many ways of learning. At the other end of the continuum was a behavioral-modification and credit-retrieval model. Currently, alternative schools have many incarnations. Some are based more on one type than the other and some blend the two purposes. Among the three schools I chose to observe for this study, was an alternative high school based on a progressive curriculum (I've called it Fulcrum High). It had a thoroughly democratic structure of governance, run by committees on which students had an equal voice along with faculty and staff—a type of infrastructure not found in more conventional public schools. There I found arts integration happening informally as a natural way of teaching. The other two schools I chose actively planned arts integration strategy.

Personal Significance: Reflecting on a Journey

In completing this thesis, I felt as if I had just returned from a long quest to understand the true value of an arts education—what creative thought is—how to express it—how to share and leverage it. In addition, I confirmed what I long suspected—that transferable thinking skills found in the arts can benefit traditional approaches to academic instruction.

Initial interest in this topic came from my background as a professional illustrator-designer, art school instructor, and former Fortune 500 corporate marketing field communications manager.

As an art school instructor I had successfully experimented with collaborative teaching and critiques that incorporated several visual arts disciplines in project-based

assignments. This holistic approach generated intense student and instructor engagement. It also produced some stunning results and contributed to instructor camaraderie.

Later, as a marketing communications manager I collaborated with other managers on an experiment to weave creativity with sales training (drawing on research from the arts and sciences). The results were measurable, increased profits attributable to newly generated sales strategies from our seminar participants. These two different integrated curriculum experiments (one in an art school setting, the other in a corporate setting) made me want to take a deeper look at what had taken place.

In my corporate experience, for several years I jointly planned our sales training seminars with other marketing and department managers. Our general management had taken to heart these sobering comments on the book jacket of Jamming, the Art and Discipline of Business Creativity, by Harvard Business School professor John Kao (1996):

> Create or fail. . . . And it's not just media and high-tech businesses that have to invest in creativity. From corporations that make cars and socks to accounting firms and airlines, every company—every organization—must make creativity its top priority if it is to last beyond the next reporting period. (p.8)

In response, our department's vice-president (who had previously taught science in college) experimented with infusing sales training with creativity from physics and the arts. As a result, verified increased profits were directly and indirectly attributed to our training seminars and their spin-off programs (Field Call 1999 & Market.net publications, 1999-2000). Witnessing these results, it seemed obvious that integrating different disciplines and emphasizing their creative elements had effectively synergized learning.

On a more personally significant note, as an artist I have appreciated having at my command a codified system of idea-generating techniques learned in art school. Those techniques have served me well in generating ideas for advertising and publication deadlines. Use of this system has proven to me that principles from the arts can boost one's idea capacity in many areas, because the problem solving found in the arts nudges thought toward many possible answers (studies refer to this as *divergent thinking* [Hamilton, 2005], rather than the pursuit of just one right answer (referred to as *convergent thinking*).

Conventional academic learning approaches found in the sciences, mathematics, language and history are often based on convergent thinking processes in which specific answers are sought and expected. Problem solving techniques in the arts are designed to question assumptions and encourage multiple approaches to finding answers. Those multiple approaches, in-turn, have the potential to generate a variety of solutions, some of which, at first glance, may seem outrageously impractical or contradictory, but may nevertheless prove valid.

In a *Psychology Today* article, Mihaly Csikszentmihalyi (1996) stated: "Divergent thinking is not much use without the ability to tell a good idea from a bad one, and this selectivity involves convergent thinking" (p.1).

In the long run, convergent and divergent modes of thought depend on each other as two parts of a whole. Divergent thinking generates multiple approaches and ideas, and convergent thinking works to refine and implement them.

Another name for divergent thinking is *Lateral Thinking*. The Oxford English Dictionary defined lateral thinking, based on Edward de Bono's writings, as: "The way of

thinking which seeks the solution to intractable problems through unorthodox methods, or elements which would normally be ignored by logical thinking" (de Bono, 1967).

Personally, I like to think of lateral thinking as alternative thinking—generating a lot of alternatives—which is the richness and essence of creativity—hence my interest in alternative schools with their alternative approaches to curriculum.

Creative Thinking and Critical Thinking

Cotton (2005) defined *creative thinking* this way: "A novel way of seeing or doing things that is characterized by four components: *Fluency* (generating many ideas), *Flexibility* (shifting perspective easily), *Originality*, (conceiving of something new), and *Elaboration* (building on other ideas)." Fluency, flexibility, originality and elaboration are all cognitive modes of thought found in the arts. These cognitive components of creative thinking support *critical thinking*.

Mary Bellis (2005), defined creative thinking and critical thinking in this adaption from materials compiled by the United States Patent and Trademark Office—based on the book Creative Problem Solving, the Basic Course (Isaksen and Treffinger, 1985):

> *Creative thinking* [italics added for emphasis] is described as making and communicating connections to: think of many possibilities; think and experience in various ways and use different points of view; think of new and unusual possibilities; and guide in generating and selecting alternatives . . . *Critical thinking* [italics added for emphasis] is described as analyzing and developing possibilities to: compare and contrast many ideas; improve and refine ideas; make effective decisions and judgments; and provide a sound foundation for effective

action. [Note how creative thinking is divergent thinking and critical thinking is convergent thinking, and how they work together.]

The arts are all about creativity (generating ideas) and problem solving (refining solutions). I believe that infusing traditional academic disciplines with cognitive and affective approaches from the arts will enhance engagement in learning, as well as improve critical thinking. I believe it can unite us as *whole* thinkers and help us avoid outlooks that are narrow and compartmentalized; and it can help us break through assumptions and limitations to generate new ideas.

The earlier quote from Kao (1996) identified creativity as the one skill corporate America (a.k.a. our economy and well-being) needed to nurture in order to survive. So, as trainers of the next generation, educators also should take note that a habit of thinking creatively may well be nourished through an arts integrated curriculum.

Educational objective charts, such as Benjamin Bloom's Taxonomy of Cognitive Levels (Pennekamp, 2005), contain ingredients found in all academic disciplines, including the arts. Their common threads offer teachers logical foundations on which to plan arts integrated curriculums (see *back-mapping* p.142 of this thesis).

I think learning in the arts also can bring a unique ingredient to other academic subjects. The title of a book on media and culture, The Medium is the Massage (McLuhan & Fiore, 1967, 2000), captures the visceral aspect of what learning through the arts can be like. The *medium* (whatever delivers knowledge) *massages* the mind as it delivers the message (appeals to the senses)—thereby making the experience more memorable and meaningful.

Using diverse mixtures of teaching approaches to stimulate creative thought also speaks to Howard Gardner's Multiple Intelligences theory (Gorman, Kaufman & Ray, 1993)—that diverse approaches to learning often allow for different strengths and talents to emerge. It expands horizons of thought to foster unique and fresh insights to problem-solving. And it has the potential to close achievement gaps for the disadvantaged learner through synergetic engagement of an individual's interests and strengths.

In a comment on our times, Kao (1996) stressed the importance of training people to mobilize the power of ideas:

> This is the age of creativity because it's the age of knowledge. And in an era that prizes knowledge, creativity adds value to knowledge and makes it progressively more useful (p.8). . . . This is the age of creativity because the subtext of global competition is increasingly about a nation's ability to mobilize its ideas, talents, and creative organizations. A company that ignores the global creativity map is spurning an important set of strategic considerations. (p.16)

An Example of Cutting-Edge Awakening on a State Level

In 2004, after many years of allowing the arts to languish in a non-essential category, the Washington State Legislature officially recognized and mandated the arts as a core academic discipline. Competency standards were developed, and a statewide conference was held in 2005 that gathered public school arts educators to discuss issues. Included in the conference were several sessions on integrating the arts in other academic subjects.

A June 2005 Harris Poll (cited on *Americans for the Arts* website) showed 93% of Americans agreed: Arts education was central to children's development; 79% of

Americans agreed that incorporating arts into education was the first step in adding back what's missing in public education today; and, 40% of Americans "involved in the life of a child," said they did not know how to get involved in arts education.

These current events convinced me that the time was right for this thesis topic. As arts integration becomes mandatory, school districts will have limited funds to hire specialists, so some of the competency training responsibilities will need to be achieved through arts integration in other academic subjects.

To minds attuned to the learning value associated with integrating the arts across the curriculum, integrating the arts is an emerging battle cry. Consider this:

> Recent findings in brain science do not support the prior belief that the left side is for logic and the right side for emotion. The most consistent generalization about brain laterality is that the left brain is utilized most strongly for tasks that are highly and tightly structured, such as correct use of grammar in language, while the right hemisphere is more actively involved in tasks that require development of big-picture impressions, and generalizations. The new findings also suggest that an integrative approach to learning is a far more natural way to learn than to study subjects in isolation from each other (J. Zull, personal communication, July 7, 2005).

So, since creativity links the arts, critical thinking, expression, and invention—and the arts are especially known for their ability to inspire creativity—in my research, I looked for creative ways the arts were being incorporated in other academic subjects.

Perhaps these findings can inspire collaboration between arts and non-arts instructors who are new to the thought.

LITERATURE REVIEW

Creativity from the Arts Enhances Critical Thinking Skills

Education critic Charles Fowler wrote an insightful book on the arts and arts integration entitled: Strong Arts, Strong Schools, the Promising Potential and Shortsighted Disregard of the Arts in American Schooling (1996). In a chapter called *The Shameful Neglect of Creativity*, he described what he saw as a woeful state of affairs:

> When teaching students to be creative thinkers, most American schools are derelict. All too rarely are young people asked to solve problems, be innovative, and figure out new solutions. . . . Of course in certain subjects—spelling and history come to mind—too much creativity would be inappropriate. But in mathematics and science it should be an integral part of the challenge. Discussions of problems conflicts, and issues in social studies require reasoning and call for students to come up with and justify their own viewpoint. But too often, students are simply told what to think. (p.119)

Quoting another educational critic Judith M. Burton, he stated:

> 'It is the imagination that allows us to take journeys in thought, to probe the hidden and undiscovered dimension of things, to enlarge our horizons and transcend limits. It is the imagination that allows us to play with ideas, draw new conclusions, test them in thought and action. . . . The imagination is one of humankind's most precious capacities, one to which we need to give a privileged place in our schools.' (pp.119-120)

In considering Fowler's complaint that the schools neglect imagination and creativity, a remedy may be observed in those classrooms where the arts *are* combined

with other academic subjects (see examples in Appendix B and C). They not only nurture creativity and imagination, but at the same time heighten delight in learning. As mentioned earlier, recent quantitative and qualitative studies in education show that arts integration in the curriculum can lead to enhanced academic performance and can help close achievement gaps for disadvantaged students. Fowler (2002) further put forth this eloquent statement of reason regarding arts integration:

> The arts provide multiple ways to experience, understand, and express the world and our relationship to it. They are one of the fundamental repositories of human wisdom. They educate the imagination and develop originality. They represent significant ways for students to discern, express, communicate, figure out, and understand the human universe. . . . Understanding and respecting these connections between the arts and general education, as well as among the various arts, are essential to the development and presentation of all the arts in the schools. (pp. 4-5)

As I read this excerpt, the word *connections* stood out. Through my research I have come to understand that arts integration is about *connecting* students to learning in a more personal and meaningful way.

From my perspective as an arts educator, when the arts are integrated with other academic subjects, several levels of integration and connection can happen simultaneously. For instance, each art form has a range of disciplines in its purview that may be combined. Take the visual arts—when planning assignments, it has the potential to integrate lettering, graphic design, perspective, photography, figure-drawing, two- and

three-dimensional materials, the knowledge of styles, the science of color, multi-cultural influences, etc.

When either of the art forms—visual arts, music, drama, or dance is combined with (*connected with*) another art form, that is defined as integrating the arts. If any of the arts are combined with (*connected with*) a non-arts academic subject, that is also referred to as integrating the arts, but it is done within the context or content of the specific non-arts subject.

In addition, two types of thinking processes—the cognitive (intellectual, rational, analytical, logical) and the affective (emotional, playful, sensual, expressional) are also intertwined in learning. These two thought processes are found in all art forms as well as non-arts subjects to varying degrees. The technical, cognitive aspect of the arts makes the arts *academic*; the spontaneous, intuitive aspect makes them *engagin*g.

In arts integration, the word *connection* is also important to teacher training. To do arts integration effectively, cross-pollination needs to happen. An arts integration specialist needs to learn about [*mentally connect with*] the domain knowledge of the non-art subject. And, likewise, the non-arts instructor needs [to *physically connect with*] hands-on arts experience to gain insight and confidence.

When Cognitive and Affective Thinking Connect

A small coffee table book, The Dot and the Line (Juster, 1963), charmingly illustrates what happens when rational thought is influenced by playfulness. Using graphic elements to represent character, it tells the story of a straight line who falls in love with a round dot.

In the beginning, the round dot preferred to companion with a squiggly ill-kempt line that never made the same shape twice and bounced along in a tangled mess. Meanwhile, the forlorn straight line, madly in love with the dot, tried to imagine himself as a forceful presence. He thought of his capacity as a tightrope, a traffic line, or a rope in tug of war, but that pass-time barely consoled him. "I lack spontaneity. I must learn to let go, to be free, to express the inner passionate me." In his despair he bent at an angle. Once he discovered he could bend, he earnestly applied himself to bending in all directions—then in wild abandon he created all sorts of complex curves and exotic mathematical formulations. He practiced in secret. With his newly discovered integration of freedom and structure, he approached the dot and her squiggly line suitor. And the dot, dazzled by his amazing display of geometric virility, suddenly wondered why she had "never noticed how hairy and coarse" the squiggly line was, "how untidy and graceless." The squiggly line, slinked off in irrelevant ignominy as the dot suddenly came to the realization that "what she had thought was freedom and joy was nothing but anarchy and sloth." With that she turned to the straight line and shyly took his arm. "Do the one with all the funny curves again, honey," she cooed softly as they strolled away.

So, as the story demonstrates, in problem solving and invention, playful thought, when combined with rational thought enhances possibilities and fosters a creative attitude.

Beware the Reductionist Trap of Leaving out Affective Thinking

Continuing with an example from the visual arts: In a 1974 seminal study, Art and Visual Perception: A Psychology of the Creative Eye, Rudolf Arnheim took a technical approach to evaluating composition by reducing it to a basic system of

component elements and relationships. However, in his book he also warned of a potential trap lying in wait for the simplistic adopter of such a mechanical approach to composition if the balancing forces of spontaneity and intuition [a.k.a. affective thinking] were disregarded:

> By making visual categories explicit, by extracting underlying principles, and by showing structural relations at work, this survey of formal mechanisms aims not to replace spontaneous intuition but to sharpen it, to shore it up, and to make its elements communicable. If the tools provided here kill the experience rather than enrich it, something has gone wrong. The trap must be avoided. (pp.8-9)

Later on, he again hinted at the danger, "Some caution on how to use this book may be in order," then he wryly recalled a colleague's reaction upon reading his intellectual reductionist analysis of composition:

> Recently, a young [art] instructor at Dartmouth College exhibited an assemblage which, I am pleased to report, was called *Homage to Arnheim*. It consisted of ten identical mousetraps, arranged in a row. At the spot where the bait was to be affixed, he had written the titles of this book's ten chapters, one on each contraption. (p.9)

From my own experience as an artist, I agreed with Arnheim, that if a system of composition is adopted simplistically, it can act as a straight jacket that insists things can only be approached in specific ways—thereby stifling original thought.

So, to me, this comment was a warning for those who tend to have more logical, analytical tendencies when approaching arts integration. I think it is important to keep in

mind that even though it is possible to analytically describe the arts they should by no means be treated formulaically. Spontaneity is what makes them engaging.

But Beware the Mysticism Trap That Excludes Cognitive Thought

Likewise, those who tend to regard art as mainly mystical and expressive should consider another comment by Arnheim: "Groping in vagueness is no more productive than blind adherence to rules" (p-3).

I agree with this comment—in that it is also important to avoid the attitude often associated with the arts, that the only way creative and original thought can arise is in a no-rules, non-regulated environment.

Arnheim also said: "The delicate balance of all a person's powers—which alone permit him to live fully and to work well—is upset not only when the intellect interferes with intuition, but equally when sensation dislodges reasoning" (p-3).

Again I agree. When the *intellect* insists that there is only *one right answer*—one way to go—or *emotion* insists that *chaos is the only avenue through which original thought emerges*—interference and dislodgement happen.

In Elliot Eisner's (2002) seminal book on arts education, The Arts and the Creation of Mind I found this quote regarding interference and dislodgement:

> Traditional views of cognition and the implications of these views for the goals and content of education have put the arts at the rim, rather than at the core, of education. . . . One aim of [my book] is to dispel the idea that the arts are somehow intellectually undemanding, emotive rather than reflective operations, done with the hand somehow unattached to the head. . . . I advance quite a different view. I argue that many of the most complex and subtle forms of

> thinking take place when students have an opportunity either to work meaningfully on the creation of images—whether visual, choreographic, musical, literary, or poetic—or to scrutinize them appreciatively. (pp.xi-xii)

I think Eisner captured the general impression of how art has traditionally been regarded—as an emotive experience rather than a rigorous thinking experience. Further on he described the term cognition, as it relates to the arts, in this way:

> All those processes through which the organism becomes aware of the environment or its own consciousness. It includes the most sophisticated forms of problem solving imaginable through the loftiest flights of the imagination. Thinking, in any of its manifestations, is a cognitive event. . . . The arts provide a way of knowing. (pp.9-10)

Eisner then tied this thought to the curriculum. He referred to curriculum as a "mind-altering device":

> The tools you work with influence what you are likely to think about. Measuring tools lead to quantification; the tools used in the arts lead to qualification. . . . Art provides the conditions for awakening to the world around us. . . . The arts provide permission to engage the imagination as a means for exploring new possibilities. The arts liberate us from the literal; they enable us to step into the shoes of others and to experience vicariously what we have not experienced directly. (pp. 9-10)

The Role Arts Integration Plays in Transfer

Another benefit of integrating arts in the curriculum is that they can play an important role in *transfer*. *Transfer* is referred to this way on San Diego State

University's College of Education web site, *The Encyclopedia of Technology*: '"Transfer of learning is the application of skills and knowledge learned in one context being applied in another context (Cormier & Hagman, 1987)"' And, "Transfer is the 'ability to learn in one situation and then use that learning, possibly in a modified or generalized form, in other situations. Transfer is the core of problem solving, creative thinking, and all other higher mental processes, inventions, and artistic products' (Sousa, 1995, p.67)."

Pattern recognition and simplification directly contribute to transfer and are inherent in arts education. In Robert and Michele Root-Bernstein's (1999) book, Sparks of Genius: The 13 Thinking Tools of the World's Most Creative People, the authors explore cognitive tools that aid learning transfer. *Harvard Business View* called their research "Captivating for its insight into the potential of human imagination." *American Scientist* recommended their study as a "powerful book for scientists, artists and humanists alike." In the following excerpt, the authors explored (what I think is the essence of) how interdisciplinary arts integration works to boost academic performance. An essential ingredient they pointed to was that of pattern recognition:

> Because sense experience and sense imagery are rich and complex, creative people in all disciplines . . . use abstracting as an essential tool. And whether one is an artist like Picasso, a scientist like Einstein, or a writer like Hemingway, the process of paring down complicated things to simple principles is the same.
>
> Simplifying often works in tandem with patterning, a tool with two parts. *Recognizing patterns* is involved in the discovery of nature's laws and the structure of mathematics, but also the rhymes and rhythms of language, dance, music, and the formal intentions of the painter. Recognizing patterns is also the

> first step toward creating new ones. Novel *pattern forming* whether in music, art, engineering, or dance, almost always begins with combining simple elements in unexpected ways. Even more interesting, there are patterns to pattern forming itself. Moreover, recognizing patterns in patterns leads directly to *analogizing*. The realization that two apparently different things share important properties or functions lies at the heart of the world's greatest work of art and literature and the most enduring scientific theories and engineering inventions. . . . (p.25)

More from the Root-Bersteins on the Roots of Imagination

> Creative thinking in all fields occurs preverbally, before logic or linguistics comes into play, manifesting itself through emotions, intuitions, images, and bodily feelings. The resulting ideas can be translated into one or more formal systems of communication, such as words, equations, pictures, music, or dance only after they are sufficiently developed in their prelogical forms. Regardless of the infinitely diverse details of the products of this translation (paintings, poems, theories, formulas, and so on), the process by which it is achieved is universal. Learning to think creatively in one discipline therefore opens the door to understanding creative thinking in all disciplines. Educating this universal creative imagination is the key to producing lifelong learners capable of shaping the innovations of tomorrow. . . . We weave the fabric of the book from the experiences of the century's greatest minds, who explain how they think about thinking and how they learned how to think. People in every creative endeavor use a common set of general-purpose thinking tools in an almost infinite variety of ways. These tools reveal the nature of creative thinking itself; they make

> surprising connections among the sciences, arts, humanities, and technologies. At the level of creative imagination, everyone thinks alike. (p.vii)

I was especially taken with Root-Bernsteins' concept of patterns of thought: "And whether one is an artist like Picasso, a scientist like Einstein, or a writer like Hemingway, the process of paring down complicated things to simple principles is the same" (quoted from preceding excerpt).

Learning the Same Things

Long before reading this, I remember recognizing similar patterns in the arts, sports, and business and thinking that no matter what one does, one learns the same thing. In other words, various disciplines share fundamental principles and commonalities, (though they are expressed in different ways). Whether one is talking about the arts or other academic disciplines—this is a strong argument for an interdisciplinary curriculum that reinforces connections between various disciplines.

Reflection on National Quantitative and Qualitative Studies that Support Transfer

In Putting the Arts in the Picture: Reframing Education in the 21st Century (2004), Rabkin and Redmond reflected on the national arts integration research measured in Champions of Change (1999), Critical Links (2002), and other recent studies. They examined the features of arts integration "as a pedagogical strategy; how and why it works; its educational and developmental benefits; and the challenge of making it available widely in schools and in after school programs":

> Serious evaluation studies completed in the last few years now provide strong answers to the questions raised then: There is transfer. Students make substantial gains in the basics. Students become better thinkers, develop higher order skills,

and deepen their engagement and their inclination to learn. Arts integration's effects are significant for all kinds of students, but they may be most substantial for low-achieving students.

What is the strategy? At its best arts integration makes the arts an interdisciplinary partner with other subjects. Students receive rigorous instruction in the arts and thoughtful integrated curriculum that makes deep structural connections between the arts and other subjects. This enables students to learn both deeply. The practice of making art, and its performance or exhibition, becomes an essential part of pedagogy and assessment, but not just in art or music class. These activities become part of the routine of studying history, science, reading and writing, and math. . . . Integrated arts education is not arts education as we generally think of it. It is designed to promote transfer of learning between the arts and other subjects, between the arts and the capacities students need to become successful adults. It is designed to use the emotional, social, and sensory dimensions of the arts to engage students, and leverage development and learning across the curriculum. It is designed to amplify learning in the arts by escaping the confines of formal aesthetic and technical instruction. It connects the content of art to students' personal experiences and their need to make meaning from the world. Arts integration does not conform to any of the stereotypes of arts education. It requires serious engagement and learning in the art form and broadens the *arts for art's sake* [italics added] focus of conservatory education. It makes creative production a core practice and value, and rejects the standards-

> free, non-cognitive approach of creative expression or recreation. We might call it *the arts for learning's sake* [italics added for emphasis].
>
> There should be no question about whether the arts belong in the curriculum and in children's lives. There should be no question that if we want to maximize the power of arts education—cognitively, socially, and emotionally—if we want to meet the challenges of students in low-income and low-performing districts . . . arts education must be integrated. (pp.8-9)

Culture and Cultural Differences

The Importance of Educating the Whole Person

Charles Fowler (1996) commented on the cultural urgency for including the arts in the learning process:

> What we are facing is a cultural upheaval. Our values are in flux. As public taste embraces the sensational, the commercial, and the gross, aesthetic quality is being trashed in favor of the expedient—fast food, the quick fix, and easy entertainment. There is an ongoing, pervasive struggle—a cultural divide—between the values of those who support the arts and those who denounce them. (p.75)

While determining exactly how art *defines* is sometimes a "cultural upheaval" of its own within any given arts community (for instance, great rap might be frowned upon by opera buffs, but embraced by groups devoted to ethnic culture and urban folk music), I think Fowler's comment is significant when it comes to aesthetics in general.

According to the theory of multiple intelligences originated by education researcher, Howard Gardner (Goleman, Kaufman & Ray, 1993):

> Music and the other arts are dimensions of human power. They are major civilizing forces. Although the arts do not necessarily make us more moral, they can help us learn to be empathetic toward others. The arts teach us to feel and to care. They put us in touch with some of the highest achievements of humankind, inducing us to reach, to live up to something. Encounters with the arts enable us to unlock some of the great stored wisdom of the ages. Children made to live without the arts are inevitably poorer for it. This is why every young person, without exception, should be given access to the study of the arts, not to become artists, but to be better educated. (pp.42-43)

Whose Concept of Art Should Be Taught?

Webster defines aesthetics as: "a branch of philosophy dealing with the nature of beauty, art, and taste . . . and with the creation and appreciation of beauty." Beauty, art, and taste have many definitions. So as students learn to appreciate and create, what concept of art should be taught?

Consider this from Charles Fowler's (1996):

> What we do not want in the United States is a dissolution of our many ethnic cultures or a fusion of them into one indistinguishable mass. The diverse riches of mind, spirit, and imagination make a dynamic whole only if there is a shared cultural base. If we are not to be a country of many separate peoples, we must establish commonalities of culture as well as some understanding across our many artistic legacies.". . . (p.114)

"The black person who knows only African-American music and the white person who knows only European painting and architecture are equally deprived" (p. 15).

And Then There Is the Question of Quality

In the case of rap or graffiti art, one can argue, as did *New York Times* chief art critic Michael Kimmelman, in The Accidental Masterpiece (2005, inside book jacket), "that the world is . . . richer when it declines to abide by comforting formulas." Indeed, the very nature of beauty or ugliness is debatable (think of how abstract art has often been despised by appreciators of realism and vise versa).

Kimmelman's book brought out how the sublime can be gleaned from the ordinary, and how the sublime, in turn, can sometimes be thought of as ordinary (kitsch—overused, overexposed, overwrought); how the unplanned can be great art and the planned, not so great art; how art can be *found* as much as created; how art is a way of experiencing life that is open to everyone—it can be the way we shape our view of the world: that "art provides us with clues about how to live our own lives more fully . . . creating, collecting, and even just appreciating art can make living a daily masterpiece" (inside book jacket).

Reflecting on my background as a teacher and artist, I agree with Kimmelman. With art, I think there is a good that *is* good, and a good that *isn't* good (sometimes on purpose, sometimes not); and there's a bad that *is* bad, and a bad that *isn't* bad (sometimes on purpose, sometimes not). Shakespeare said, "Nothing is good nor bad but thinking makes it so (Eddy, 1875)."

I believe the true power of art is in its ability to transform our viewpoints. Art appeals to our emotions and it helps us challenge assumptions. It allows us to consider new perspectives. It proffers a variety of choices, thereby causing us to select and refine

what we value. Again this from Fowler (1996), in which he addressed a thought he felt was wrongly held about the arts:

> The arts are not pretty bulletin boards. They are not turkeys and bunny rabbits. They are not frivolous entertainment. Rather, the arts represent humanity. They are the languages of civilization through which we express our fears, our anxieties, our hungers, our struggles, our hopes. They are systems of meaning that have real and important utility. (p.56)

The Arts Increase Choice

Realizing the word *aesthetic* (the concept of taste, beauty and art) has a variable meaning (depending on specific groups, individuals, places or time periods), in no way takes away from the critical importance of combining the arts with other academic subjects. The arts increase choices. Divergent thought is about choice and variety. Convergent thought limits choice and refines divergent thinking. Both kinds of thinking help us to embrace of the wholeness of experience. Critical thought and creative thought use both divergent and convergent thought processes in problem solving, which in turn produce satisfactory—and sometimes original—solutions. One would have to agree that no matter how one defines aesthetics, the arts taught for their own merit (stand alone) or integrated with content in other knowledge domains, add engagement and enrichment to curriculum. This, from Fowler (1996):

> To view the arts as vehicles for understanding the world, to recognize that the arts provide some of the best ways to enliven learning and make students respond, is to realize their true educational potential and importance. Viewing the arts more

academically is an acknowledgment that they are more than mere enrichment. They are important studies in their own right. (p.102)

Resistance

Why the Arts Are Not Included in the Curriculum

This research found various contributing factors: Tight budgets and other priorities; the new federal *No Child Left Behind* legislation, mandatory high-stakes testing, differing views of what matters in education; specialization and departmentalization; lack of time, lack of training, lack of information, lack of support and lack of leadership; thinking that the arts are recreational as with crafts or hobbies—or frivolous, esoteric, and elite—or only for the talented few and of no relevance to essential learning; the thinking of arts educators that art should not be watered down by using it as an integrative tool in other subjects.

Fowler (1996, p.177) also mentioned that fierce political turf wars in higher education were a factor.

Incorrect Assumptions Regarding Learning

The Root-Bernsteins (1999) said, "We are taught and tested with words and numbers, and it is assumed that we think in words and numbers" (p.13):

> Just look at how the curriculum, at every educational level from kindergarten to graduate school, is divided into disciplines defined by products rather than processes. From the outset, students are given separate classes in literature, in mathematics, in science, in history, in music, in art, as if each of these disciplines were distinct and exclusive. Despite the current lip service paid to 'integrating the curriculum,' truly interdisciplinary courses are rare, and transdisciplinary

> curricula that span the breadth of human knowledge are almost unknown. Moreover, at the level of creative process, where it really counts, the intuitive tools for thinking that tie one discipline to another are entirely ignored. Mathematicians are supposed to think only 'in mathematics,' writers only 'in words,' musicians only 'in notes,' and so forth. (p.12)

Fowler (1996) points out that arts opportunities differ according to where a student happens to live, and that:

> Even in exceptional high schools that might be considered to have ample courses in the arts, relatively few students enroll in them. They are often advised to concentrate on [traditional] academics and to elect additional courses in science and math rather than the arts. (p.86)

A Brief Summary

So far we've learned that the arts can play a role in transfer, which contributes to a student's problem solving ability. Problem solving involves creative thinking and critical thinking skills, both of which are found in the arts. Rational, convergent thinking (generally associated with traditional academic thought) and divergent, idea-generating thinking (associated with inventiveness and the arts) complement each other.

It is acknowledged that the arts represent disciplines in their own rights, which combine affective and cognitive aspects of thinking. However, when the arts are integrated with other academic subjects in the curriculum, an interdisciplinary synergy can be achieved that greatly enriches, enhances, and leverages learning. But, various types of resistance need to be overcome. The next section offers an example of arts

integration successfully practiced—what can happen when there is a willingness to try new things.

A Small Beginning with a Big Potential Payoff (CAPE Program)

Arts Integration in the Curriculum Helps the Disadvantaged Learner

Burnaford, Aprill, & Weiss (2001) recounted and documented the meaningful learning that happened in Chicago's low-income, low-performing schools as the result of a six year, city-wide, arts integration experiment called Chicago Arts Partnerships in Education (CAPE). The excerpt that follows caused me to feel like the potential of arts integration was suddenly too big to describe:

> *Second-grade students at Pulaski Elementary had been studying ecology. They used recycled milk cartons to create a scale model of their school and its surrounding neighborhood. The students photographed actual homes in the area, reproduced accurate scale models, and designed communities on the computer program, "Sim City." Because the neighborhood is being gentrified, the homes were changing during the course of the project. This led to lengthy discussions about neighborhood planning and how to create communities that were the right scale for children. The project culminated in the presentation of the scale model to the principal and a discussion about the need for a school playground. Six months later, the school did indeed build a playground.*
>
> *Sophomores, juniors and seniors in the Metro Program at Crane High School worked with filmmakers and video artists from the Community Film Workshop to dissect characters on TV. They analyzed African-American stereotypes in the media; examined what messages an image communicates*

through point of view, framing, lighting, focus, and color; determined their own messages; and then created their own storyboards for filming.

Third graders at Murray Language Academy studied birds, but they did much more than that. They took part in a multi-dimensional learning process that consisted of experiments (e.g., 'What is inside an uncooked chicken egg?'); movement, dance, and role-playing (e.g., moving like penguins and eagles); origami and other visual arts; a visit to the zoo; research on migration patterns; reading both fiction and non-fiction books dealing with birds; and descriptive writing. Using the knowledge they gained through this multi-faceted curriculum, the students created original illustrations of birds that were then laminated for bookmarks.

How is learning happening in each of the classrooms and schools described in these vignettes? How are children engaged? What seems to be the role of curiosity and imagination in each of these classroom stories? In other words, what's going on here?

For starters, each of these classrooms, as part of the Chicago Arts Partnerships in Education (CAPE) network, has access to painters, dancers, musicians, filmmakers, videographers, and others who think about the world as artists do. They also have day-to-day access to teachers who think creatively about how learning in their classrooms can go beyond the textbook and dip right into the real world. These teachers and artists who work with them have been engaging in *arts integration*. These teachers believe that children not only need

> the arts in their daily lives, but also can benefit from arts-based learning that is deeply immersed in other areas of the curriculum.
>
> The teachers in those classroom stories are faced with the same challenge of meeting state goals and district standards as other teachers throughout the country. They are held accountable for students' test scores on a regular basis, and they feel the pressure of time to cover everything that a child should know by the time he or she moves on to the next grade level. Yet they have seen firsthand that none of those external goals can happen unless children participate actively, use their hands as well as their minds, and make connections between what they are learning and what they are living. These teachers see *arts integration* as one avenue for making these laudable goals into practical realities. (pp.3-5)

CAPE program described arts integration as "embedded in the larger context of *curriculum integration*, which has a history in the field of education" (p.6). Along with the idea of the arts holding an embedded position, is a reference to today's technology economy:

> The stories and examples of curriculum in this text illustrate how teaching learning processes in schools can move from the linear instructional modes appropriate for a manufacturing economy to the hyperlinked, problem-based, project-based approaches appropriate for an information economy. When well planned and implemented, arts integration is one of the most effective ways for a wide range of students with a wide range of interests, aptitudes, styles and experiences to form a community of active learners taking responsibility for and ownership of their own learning. (p.xxvi)

Specific and Contextual Learning

The authors introduced the concept of focused and incidental learning with the metaphor of a hammer:

> If you are driving a nail into a piece of wood with a hammer, you are aware of your actions on at least two levels. The focus of your attention is on the head of the nail. But you are also conscious in a subsidiary way of many other things—the weight of the hammer, the arc of your arm, the force of the drive. You must be aware of these in the right way to complete the task. If you focus on what your arm is doing, you are likely to miss the nail altogether. . . . Similarly, in education, children often learn best by being absorbed in tasks that require the incidental use of skills and ideas, rather than focusing on them in a detached way. The arts provide powerful ways of doing this. There is growing evidence that standards of achievement rise through a broad and balanced curriculum that includes the arts, in which children are able to play to their strengths and to make connections with what they know. (p.xx)

The Authors Reflected on CAPE

Commenting on their six-year experiment, the authors said this about a further role arts integration plays in learning:

> Effective learning is a negotiation between received knowledge and original inquiry, between social consensus and individual expression. School improvement efforts sometimes get stuck focusing on just one or the other end of these negotiations. Arts integration gives aesthetic form to the negotiation. The

> participants in this project have learned much about the arts as a pathway for meaningful learning. (p.xliv)

And finally: "Motivation is born of success. When young people find what they are good at in education, they tend to improve overall (p.xix)."

Two Foundation Studies

Reflecting on my research, two foundations, came to my attention for their outstanding efforts in arts integration support: Ford Foundation and Annenberg Foundation. There are other fine contributors (in particular, the J. Paul Getty Center for Education in the Arts, and the National Endowment for the Arts), but these two seemed to target what I found most interesting—examples of district-wide student improvement and the evidence of rich teacher development. The Ford Foundation's narrative on the Dallas effort concentrated on student improvement through enriched field trip experiences. The Annenberg Foundation study dealt specifically with teacher development. I will share the Ford Foundation story first. This effort was initiated through a partnership between the city, the school district and arts organizations.

Ford Foundation Report

New Approach to Field Trips

In the 2005 Winter Ford Foundation Report, writer Christopher Reardon reported on Ford's ongoing support for Dallas ArtsPartners, as part of their larger effort to re-envision urban schools:

> In Dallas, thousands of elementary school teachers are integrating field trips and artist residencies into their lesson plans for such core subjects as reading, math, science and social studies. Since 1998 all but a few of the city's 157 public

> elementary schools have been working with museums, theatres, and other art groups for the express purpose of boosting student's academic achievement. In that time the nation's 12th largest school district has built a stronger teaching force, engaged students through new ways of learning and brought marked improvement in literacy, particularly writing. As a result, Dallas now serves as a model of curriculum reform for communities from Baltimore and Charlotte, N.C. to St. Louis and Jackson, Miss. (p.1)

As in all new efforts, systemic bureaucracies, competing goals, and an unwillingness to change can present large barriers. However the Ford Foundation credited their gains in the ArtsPartners' program to:

> A hard-won alliance between city government, the school district and the city's arts and cultural institutions. Called ArtsPartners, it has trained 4,500 elementary school teachers and revamped educational programs run by 62 arts groups, from mariachi payers to the Dallas museum of Art.
>
> "It was risky," says Giselle Antoni, executive director of Big Thought, a non-profit organization that coordinates the ArtsPartners' program. "As artists and educators, we had to change the way we saw ourselves and our role in the community" (p.1).

Art groups worried. Although the program had potential to build audiences for fine arts groups involved in the ArtsPartners' program, the principal goal of those involved was to help teachers teach more effectively. A funding concern arose in the beginning, but was soon laid to rest:

> At first some artists and administrators worried that the partnership would cut into their revenue—taking grant money that once flowed directly to arts groups and cultural institutions, but ArtsPartners has made a point of telling donors that it only accepts new or increased funds. (p.3)

The cost of running ArtsPartners averaged roughly 2.7 million a year. The school district picked up about a third of the tab, or $880,000 [The school district served 161,000 students and had a $1.4 billion operating budget (p.2).], which paid for buses, artist fees and admission changes. Another $220000 came from the city's Office of Cultural Affairs, which also gave $4.1 million directly to arts groups and cultural institutions. Federal initiatives provided about $625,000 much of it for ArtsPartners' work in after-school programs. The other $1,000,000 came from the private sector, including businesses, foundations and individual donors.

Guidelines for effectiveness set. Throughout the year following the initial agreement to move ahead with arts integration, representatives from the school district [associate superintendent for curriculum], the city's Office of Cultural Affairs, and a major city performing arts association, met to identify three ways to make field trips and artist residencies more effective, to:

> 1) Link them closely to the core curriculum, with academic achievement the ultimate goal; (2) make them available to every public school in Dallas; (3) and, let teachers, not the school district officials or arts administrators decide which activities best meet their students' need. (p.2)

These three interest groups decided on the name ArtsPartners for their formal partnership organization.

A Deeply Engaging Program

Following is a typical example of what an ArtsPartners' arts integration education unit might look like. Using a statewide curriculum, students had studied about 19th-century pioneer life in the American Southwest:

> Their understanding of this dynamic era—when the region's Comanche hunters and Mexican traders crossed paths with English- and German-speaking settlers—initially came from classroom discussions and library books. But now the school is teaming up with local artists and cultural institutions to make history come alive. . . .
>
> Hogg's fourth graders traveled across town to the Dallas Arboretum, where typical dwellings from the pioneer days stand beyond a sea of chrysanthemums. The students stepped inside a tepee, climbed aboard a covered wagon, poked around a couple of rustic farmsteads and marveled at a house made of sod.
>
> A few days later, Sara Weeks, an actress who, through the partnership works as an artist-in-residence at Hogg, came to the class in the playful guise of an inquisitive reporter, complete with a fedora and a notebook. Weeks, who knew most of the class from previous visits to the school, interviewed students about their experiences at the arboretum teasing out detailed observations, inferences and conclusions about life on the southern plains. . . .
>
> Following their encounter with Weeks, the students wrote about Texas pioneer life in their 'history reporter journals,' a set of notebooks developed by ArtsPartners to facilitate close observation, critical thinking and written reflection.

> . . . The unit served two goals: to educate students about Texas history, in keeping with the statewide curriculum for social studies; and to hone students' skills in narrative writing, in preparation for a state assessment of writing proficiency among fourth graders. The culminating project was writing an essay about the life of pioneers in Texas and how they established their homes. For many students, it was Weeks' visit that really got their minds and pencils moving. . . .
>
> "I want them to see that learning can be fun." Weeks said afterward. "But there's more to it than that. I've been to the arboretum, had breakfast with the teachers and gone over the curriculum, so I know what these kids are studying day by day. As much as I love art for art's sake, that's not what I'm doing here. I'm using movement and performance to help them remember details and make connections that they can use later when they sit down to write". (pp.1-2)

The role of ArtsPartners was to handle logistics and coordination to guarantee a successful experience for all involved:

> The partnership serves as a clearinghouse where teachers can pair up with artists and arts professionals from the city's cultural institutions. Its program also develops instructional materials and trains classroom teachers, visiting artists and museum docents. In fact each elementary school teacher in the district receives between 10 and 50 hours of training per year, an investment that is transforming teaching practice on a broad scale. (p.3)

The Ford article commented that critics often referred to the old concept of *field trip* as *drive-by art*. However, through arts integration and collaborative planning, ArtsParners infused the idea of field trip with a new sense of purposeful learning:

> First, teachers at each grade level in a given school meet to clarify their instructional goals. After speaking with the ArtsPartners' staff and consulting an online database, they select an activity that ties into their lesson plans and advances the state mandated curriculum. Next they prepare students with help from teaching guides developed by ArtsPartners and educators at cultural institutions. After each field trip or performance, teachers build on their students' experiences through classroom discussions. Often this involves a second cultural encounter, as when Sara Weeks, the actress helped fourth graders at Hogg reflect on their trip to Dallas Arboretum. Finally teachers give writing assignments to see what students have learned. (p.3)

Teachers were impressed with the new approach to field trips and the way it engaged their students:

> "We used to take trips to free, affordable places," says [Debra] Polk who teaches language arts to fourth graders at Marsalis. "Now we go to places that connect with what we're doing in the classroom and make a difference in student achievement."
>
> That enthusiasm was palpable one Friday last fall, when Sara Weeks paid a visit to Marsalis. "When the bell rang at the end of the period, my students did not want to leave." Polk recalls. (p.5)

A new awareness:

> "Before ArtsPartners, teachers weren't always aware of what was out there," says Cheryl Malone, the principal at Thomas L. Marsalis Elementary School, which

serves a predominantly African-American community on the city's south side. "And if they were aware, they didn't know how to use it effectively." (p.3)

In the beginning, ArtsPartners had to weather instability as six different people held top posts in the school district between 1996 and 2001, but then:

> The program won favor with Mike Moses, who became superintendent in January 2001. Moses had previously served as the state's commissioner of education and led the movement to promote standards and accountability in public schools. Like many others, he came to value ArtsPartners because it brought measurable benefits. . . .
>
> Dennie Palmer Wolf, a scholar at Brown University's Annenberg Institute for School Reform, heads a continuing effort to measure the effects of the ArtsPartners' program in greater detail. . . . The researchers are now following the younger set of students into fourth, fifth and sixth grade. Data from the first three years of the study show that students performed better on their writing assignments which were scored according to their use of ideas, organization, voice, word choice and syntax—when they received enriched programming through ArtsPartners. . . .
>
> "This program makes a difference at exactly the moment in exactly those areas where kids with fewer advantages begin to fall off the map," says Wolf, noting that "many disadvantaged students slip far behind between first and fourth grade . . . The students at Hogg, for example who are mostly English-language learners from poor neighborhoods are turning out the kind of writing you usually

> get from wealthier, more advantaged students. By fourth grade, a number of them are writing as well as sixth graders elsewhere in the district." (pp.3-4)

Still challenges remained. "Many schools only have the money and time for two ArtsPartners' activities each year" (p.4).

Funding remained uncertain and personnel changes were a threat. (The article said an interim school superintendent was in place as a search went on for a candidate to fill that spot, but the school board had vowed to include arts integration as part of its interview process.)

ArtsPartners was in its fifth year when Ford's article was written. The program served "101,000 students and 4,500 teachers in more than 150 schools." And the arts community had a pleasant surprise: "The marked increase in the number of visitors from Dallas public schools has been a boon to the cultural sector" (p.3).

ArtsPartners' effort gave strong credence to the: "many educators who incorporate the arts in classroom instruction [and] say it promotes interdisciplinary learning, engages students, who would not otherwise excel and helps reveal students' hidden talents" (p.5). The article concluded with this note on Ford Foundation's plans to encourage further arts integration efforts as a result of the successful experiment in Dallas:

> Similar efforts (as part of Ford Foundation's larger goal to re-envision urban schools) are under way in Mississippi, where Parents for Public Schools of Jackson is working with key arts institutions and the school district to integrate the arts into classroom practice in seven pilot schools. As in Dallas, the broader

> aim of these efforts is to spark public dialogue about how urban schools can provide all students with a better education. (p.5)

This example illustrated for me that groups guided by an integrated arts strategy, can leverage learning possibilities. Integrating the arts brought a heightened effectiveness in which everyone benefited—the arts organizations, the schools, the students and the community.

Annenberg Foundation

Experiment to Change Teacher Practice

In a report prepared for the Minneapolis Public Schools *Arts For Academic Achievement: Arts Integration—A Vehicle for Changing Teacher Practice*, Werner & Freeman (2001) wrote:

> Arts integration, a teaching approach that uses concepts integral to both arts and non-arts areas, is increasingly being used to reach disenfranchised learners while at the same time replenishing teachers and changing teacher practice. Yet, given the potential of many of these arts integration reform efforts, the literature on such initiatives has been inadequate, either too condemning or promotional in nature, and often disconnected from the realities of teaching and learning. (Hutchens & Pankratz, 2000, p.4)

This paragraph opened the report's Executive Summary on the effect integrating the arts had on teachers' classroom management and instruction. Specifically the report's purpose was "to present evidence of teacher practice change from research on a large urban school district's arts integration initiative by addressing the question, 'What effect has arts integration had on teacher practice?'" (p.ii.).

The authors of the report had observed that improvement of student performance was linked to changing teacher practice. "Experience with previous reform initiatives, such as site-based decision making or minimum competency testing, has shown that unless reform initiatives change teacher practice, student achievement is unlikely to improve" (Conley, 1997, pp.4-5).

In 1997, a large midwestern urban school district received 3.2 million dollars of the Annenberg Challenge money (in 1993, Walter H., Annenberg, U.S. Ambassador to great Britain and a philanthropist, had provided a half billion dollars to invest in the survival of U.S. public schools). This matching grant money was used to fund The Arts for Academic Achievement (AAA) initiative in the district's K-12 schools. Its mission was to:

> Raise student achievement in the district by incorporating the arts into all subject areas, thereby not only motivating students to learn, but also providing teachers with the tools they need to change their practice and reach low-achieving students more effectively. (p.5)

Funding was from 1998 "with funding to continue through 2002. . . . The community matched the grants by the end of the first year" (p.5). Ninety participants and 37 schools were involved and the interviews covered a period of time from March 1999 to April 2000. "Collaborative partner possibilities . . . differed from site to site. Some schools wanted to deepen existing relationships with collaborative arts partners whereas other schools wanted to identify and begin working with at least one arts partner" (p.5):

> The teams consisted of teachers, the Annenberg coordinator, and in some cases collaborating artists. . . . The interviews explored changes in teacher practice on

> many levels (e.g., use of standards, use of arts integration, collaboration among teachers and artists) and guided teams in reflection on their process and lessons learned over the first two years of implementation. (p.6)

The study included teacher interviews, group interviews and observations. Each school varied in its approach to arts integration:

> Annenberg teachers at each school comprised a small group of teachers within the school (ranging from two to ten); however, some sites (particularly sites with a small number of staff) included the entire staff in the project. . . . The experience of each school with the arts varied greatly from site to site with some schools entering the project as magnets for the arts and some schools entering having no music or visual arts specialists on staff. (p.ii)

Changes in conceptualization and instruction studied.

> The results include two significant areas of teacher practice: changes in the way teachers conceptualize how learning can take place within the classroom and changes in instructional choices. Within teachers' conceptualization of the classroom, teachers found themselves: Thinking differently about the classroom . . . making room for integration despite some barriers . . . creating child-centered vs. adult-centered classrooms . . . positively changing classroom climate…rethinking what is displayed or emphasized within the classroom and beyond…using more and varied resources to teach. . . . In addition, teachers significantly changed the way they approached classroom instruction. Teachers who were deeply involved with [the] project reported they were more likely to: take risks . . . make more connections to the 'core' curriculum . . . build teaching

> skills beyond the teacher's *bag of tricks* . . . re-energize their approach to and thinking about teaching. (pp.ii-iii)

Teachers Shared Their Views

From the collection of interviews that were shared, some teachers felt that the program helped them connect their specific background in a particular art form with other art forms. For instance one teacher mentioned she integrated dance, music and architectural forms for the first time.

Connections made. Another mentioned that once he saw connections it was easy, and each time he made connections to the curriculum he'd discover new ones. Another teacher remarked how successful the cross-interdisciplinary "stuff" was—that she didn't think they'd "tried anything like it before".

Elaborating on the importance of connections and deep knowledge, the report quotes from Newmann, Secada, and Wehlage's authentic pedagogy work (1995):

> '"Knowledge is deep when central ideas of a topic or discipline are explored in considerable detail that shows interconnections and relationships. Knowledge is deep when instead of being able to recite only fragmented pieces of information, students develop relatively systematic integrated, or holistic understandings of central concepts."' (p.88)

Larger skills inventory. Returning to the study's interviews, several teachers commented on the general benefit to the school community of building skills that could be used over and over:

> "'A new development in thought processes for myself was to realize that it's not just to bring in artists for residency or an extended time for the students, but to

make sure that while they're there, it is something that's going to last for years and years.'" (p.7)

Synergy discovered. "'The more we do, the more that comes to mind that we can do. We just keep going and it gets more exciting as the time goes by because somebody else thinks of something else they'd like to do'" (p.8).

As a result of their experience, some changed their ideas about classroom noise and activity. They developed a greater tolerance for "'students moving about the room and talking with one another'" (p.8).

Greater efficiency appreciated. Those participating in the program found state and district requirements were compatible—even synergetic to arts integration. The amount of work for classroom teachers was not increased. Instead, easier ways to get concepts across were discovered.

"Some teachers' initial worry that they would have to cut required curriculum disappeared as teachers found arts integration resulted in deeper learning of the non-arts concepts, while engaging students with art forms they might not otherwise experience" (p.19).

In a different approach to science, one teacher used movement and storytelling to help move along lesson content. Students used their bodies to pretend they were seeds that became growing plants.

Teacher as joint learner with student. Escaping from the feeling of being an information giver who spewed out *stuff* a teacher put it this way: "'Instead of me being the authority in the front of the room, we are a group of people discussing art. They like

that, they feel better'" (p.10). Another teacher commented on the collaborative value of integrating the arts and said he regarded it as a tool for establishing relationships.

From the beginning, teachers had worked with arts specialists as they learned how to integrate the arts, and some were delighted with the co-teaching aspect of the program:

"'For me personally it is a way to grow. . . . You have two people working together for one purpose. Teaching can be a very lonely profession and when you have an artist you are working and interacting with, it is a wonderful experience'" (p.16).

"'I find that collaborative teaching is much more exciting, much more energizing, than being on your own, in your own world. . . . I think the students learn more'" (p.16).

The reason co-teaching with an arts specialist worked so well was because '"teachers were not expected to be the 'experts' while an artist was present, teachers could, without embarrassment become learners along with their students."' (p.18).

New reasons to showcase student work. After training in the Annenberg program, one teacher displayed student work from a new perspective:

"'Now it's not just what is the most beautiful [picture] that we put on the walls. It may be, 'What are the best thoughts?'" (p.11).

Another saw how the arts helped build self-esteem: "'I want to work with the kids on their writing and make them better writers, but I never dreamt how much publishing and putting up on bulletin boards and recognizing in an artistic way what that would do for kids'" (p.11).

Is a finished product always necessary? The following makes an interesting point on process vs. product. A teacher at a school where the arts had been a strong presence before the Annenberg arts integration project offered this reflective comment:

> "Another challenge that we've all had to make in different ways is the 'process vs. product' issue. That's difficult because there's an expectation in the school that they'll have this wonderful performance. How much time do we have to do process when we have to make sure that the product looks so good? And that becomes a big problem. It's a part of the education of the community to start to find more ways to communicate the wondrous excitement at sharing the process." (p.12)

No formulas. Teachers discovered that there was no formula or set approach to arts integration—they were encouraged to experiment with arts infusion in their lesson plans, free of adherence to prescribed methods.

> After initially risking change in instructional delivery (i.e., just trying a few arts integrated activities), almost all the teachers discovered elements of the arts (movement, critical thinking, creating original products, etc.) that overlapped with other non-arts subjects. They were then able to use these elements to more authentically integrate the arts with other subject areas instead of just doing isolated arts activities. (p.15)

The arts foster mental stretching, as reflected in this interviewee comment:

> "I don't think of myself as an artist. I have limited music experience, but I've found that's one of the things that hooks my kids, so I am willing to do it. I have limited drama experience but we've tried to do little plays and different things and just tried to expand their horizons and mine." (p.13-14)

Similarities in disciplines appreciated. A science teacher and a dance specialist teamed up to put together an arts integrated elementary science curriculum. Below are excerpts from their interviews:

> [The science teacher—] "The first thing we did, was to go through our 5th grade curriculum that was related to earth science. The science unit that we chose was called variables. We integrated all the arts with it. We combined dance, art, and music along with science . . . In fact, I don't know how I ever taught before." (p.14)
>
> [The dance teacher—] "This helped me to understand, to get to know how we can work with different kinds of classes, that music and science have the same variables, but just in different things, that science can be related to almost any subject, and I've learned how to do variables better too. How music, dance, and art are alike by changing variables and having a standard phase." (p.14)

One of the teachers summed up changes they saw in their teaching practice as a result of the Annenberg training:

> "It has been valuable to me because I am able to help my children learn to express their learning in other ways besides just writing and reading. I am really excited about the Annenberg grant because it gives me an opportunity as a teacher to be able to help them learn and express themselves in many different ways." (p.18)
>
> *Following their research, the authors concluded:*
>
> Although schools, teams, and individual teachers started at varying levels of commitment and experience, most teachers eventually fell into three levels of instructional change through arts integration. . . . Those three levels were: "1)

Discovery of how arts concepts and non-arts concepts support one another; 2) Substantial change in daily instruction through co-teaching; and 3) Transformation of activities into substantial deep knowledge" (p.15).

And in a resounding endorsement of arts integration: "Preliminary findings have not only persuaded the school district to reallocate district resources, but also to aggressively pursue foundation funding in order to sustain and expand 'learning in and through the arts"' (p.19).

THEORETICAL PERSPECTIVE, STATEMENT OF BIAS, AND METHODS

Theoretical Perspective

Respected studies have shown that combining pedagogies and learning approaches from the arts with traditional academic subjects such as math, sciences, language arts, social studies, etc., can boost academic performance. Research has also shown that arts-based approaches to learning not only engage students in important cognitive, affective, and psychomotor (physical and experiential) learning, but they also promote cultural enrichment and awareness. In my own learning and teaching I had experienced this phenomenon and wanted to explore it further.

The purpose of this report was to better understand the thinking and experience of educators who were actively promoting arts-based creative modes of thinking in non-arts disciplines and to discover how it was manifested in the classroom.

I chose to look at what might be referred to as alternative, niche, or magnet schools (depending on interpretation of the definition) that explicitly or implicitly integrated the arts. All of the schools were public schools, but with various informal or formal waivers to depart from a traditional curriculum or climate [school atmosphere] and experiment with innovative approaches to learning.

Additionally, I wanted to better understand teachers' awareness of integrative learning models and theories, their learning objectives, and how their pedagogies compared or contrasted with integrative learning models in arts integration literature. I also sought to discover to what degree they combined the arts with non-art subjects, and what results they were achieving.

This was a *qualitative*, not a *quantitative* study, however several of the references in this thesis contain supporting quantitative data. [Quantitative research takes a logical, technical approach based on measurements. Qualitative research is subjective and takes a multi-level interpretive approach based on observations and relationships. Quantitative and qualitative researchers both look for similarities in their data collection.] As qualitative research, this report could be considered *basic*—adding to general knowledge—and *applied*—seeking findings that may be used directly for decisions, or improvements in practice (Bogdan & Biklen, 1998, p.209).

Merriam (1998) stated, "Qualitative research is an umbrella term that has numerous variations" (p.10). Under that umbrella term, this report might be said to also include case studies, since it was based on three different schools, each having its own identity, but similar goals, and operating within semi-defined bounded systems.

This also has been a quest for understanding and enlightenment. As the researcher, I was the primary instrument of data collection and analysis. I observed in classrooms, interviewed people, selected literature, and filtered data through the lens of my own experience—sorting, sifting, reacting to, and analyzing it as I went along.

Multiple Realities

Qualitative studies recognize that multiple realities exist, so I chose to talk to people who were viewing arts integration from different perspectives. In a subjective and interpretive manner, I wanted to understand the data through the experience of those I interviewed. Each interview took me closer to what I wanted to know, and I collected examples of how the arts were being integrated across a range of other subjects. I felt I was solving a mystery as the separate pieces came together.

To record the cultures of the schools, I played the role of ethnographer. When I wasn't doing interviews, my presence was as a mute observer, although occasionally I conversed with students and teachers who were part of the environment.

Some Grounded Theory Evolved

In reviewing the literature and interviews, I noted patterns, themes, and ways of teaching that emerged in different forms and settings. I actually found more similarities than differences. In the process I added to what seemed to develop as a *grounded theory* (Bogdan & Biklen, 1998, p.33)—a theory that might explain the underlying forces which made arts integration successful as a learning strategy. That theory took me on an exploration of *cognitive* and *affective* thinking; it made me examine the differences between *process* and *product*, and *long-term* and *short-term goals*; I also needed to understand how the word *aesthetics* was defined by the individuals I interviewed; and, how arts integration contributed to *transfer*. And I began to be curious if there might exist a *bridge* that could help arts and non-arts teachers relate better across the mental divide between their respective domains.

Research as the Study of Phenomena

Within the framework of a qualitative study, this could also be considered a *phenomenology* study (Bogdan & Biklen, 1998, pp.23-24) since I was focused on a particular phenomenon and started with assumptions about society's various attitudes toward the arts: Some authors included in the literature review expressed strong beliefs in the transfer value the arts offered, while others questioned it. Some thought the arts were valued only as entertainment, while others believed that the arts were valued for their potential to educate the whole person. Some teachers have found integrating the

arts made teaching of non-art subjects easier; others perceived it as just one more thing to add to their workload. It was also noted that some school administrators reduced money for the arts in their budgets due to assumptions, while others increased it due to opposite assumptions.

Another thing that could be said about this research is that it was *ideographic* ["to study the behaviors that make individuals unique" (*Motivation*. Encyclopedia Britannica, 2005)], in that the topic had great meaning to me; to those teaching in the arts; and, to those experimenting with the arts in connection with the content of non-arts subjects. Each author and interviewee represented a unique contribution to the study.

Applying Heuristic Research

To a certain extent this inquiry was also *heuristic* (A Guide to Inquiry & Research, Antioch University Seattle Center for Programs in Education, 2005, p.6), in that I viewed the study from an artist and teacher's perspective and wanted to share insights. It was also a practice-centered/teacher research project, because my motive in doing the study was to improve my own practice as an educator.

On the topic *Heuristic Qualitative Research*, Gerhard Kleining & Harald Witt (2000) gave four basic rules to optimize the chance for discovery:

The first two rules referred to the interaction of the research person and research topic; the second pair to the relationship of the data collection and data analysis. All rules are mutually dependent on each other.

Rule 1: The research person should be open to new concepts and change his/her preconceptions if the data are not in agreement with them.

Rule 2: The topic of research is preliminary and may change during the research process. It is only fully known after being successfully explored.

Rule 3: Data should be collected under the paradigm of maximum structural variation of perspectives. Variation of the sample and of research methods avoid one-sidedness of representation of the topic, variation of questions avoid just one answer.

Rule 4: The analysis is directed toward discovery of similarities. It locates similarities, accordance, analogies or homologies within these most diverse and varied data. It tries to overcome differences (information retrieved from web site under *The Qualitative Heuristic Approach: A Methodology for Discovery in Psychology and the Social Sciences. Rediscovering the Method of Introspection as an Example*).

Statement of Bias

My art expertise has been in the visual arts—graphic design and illustration. One of the things I discovered was that my own explorations had independently led me to the same views held by educational scholars in arts integration—that both cognitive and affective elements play a part in arts learning; and that the arts can be used to leverage learning in other academic subjects. So, an underlying bias was that I was predisposed to be in agreement with the literature and the interviewees.

My experience has been in teaching applied visual arts on the college and art school level and I was unfamiliar with the terms *cognitive* and *affective*. Instead I would have previously used the words *discipline* and *freedom*. In actuality they are quite similar concepts, however, as a consequence of doing this research, I've learned a great deal about education terminology and theory.

An Initial Plan to Teach Art in Public Schools

After graduating from a commercial art school I attended college with the goal to become a K-12 art teacher. I was allowed advance placement in the arts and took a mix of art classes: metals, plastics, wood, and fabric; the history of visual arts and of film; architectural drawing and photography; writing, creative dramatics, acting, puppetry, music, opera; the humanities; and teaching elementary art. In sports I took aquatic arts (water ballet and diving). Somewhere along the line I changed my mind about wanting to teach in public school and switched my major to advertising and communications.

Early Negative Experiences with Arts Integration

In my undergraduate training, I had noticed teachers beginning to experiment with arts integration. Observing two grossly inadequate attempts led me to pose this question to my current interviewees: "With arts integration, could a student skate by on talent and avoid deep learning?" I believed there was temptation for a talented student to impress instructors with an arts solution and thereby avoid in-depth study. As I approached this research, I was skeptical, but also had a sense of hope.

Professional Experience

Professionally, I have been a graphic designer and illustrator with representatives in Seattle and San Francisco. I have won awards for projects in design, illustration, and film, and have been a judge on panels for print advertising and direct marketing shows. I have also been an instructor in a commercial art school. So, as a practitioner of the visual arts, I've had a lot of experience applying and thinking about art.

Because of my graphic design background, I've had a tendency to gravitate toward compositions with orderly arrangements—compositions that reflected a more

disciplined approach—compositions that could be described as appearing as if an architect had designed them (tidy, mechanical, cognitive, and rational —a more technical way of expressing things). And for a long time, abstract compositions, based on emotion, made no sense to me. However, at one point in my career I realized I needed to cultivate an appreciation for more emotive, affective expression, in order to become a better artist. . . . and I have. So, as I approached this study, I could well understand the importance of *balance* in cognitive and affective thinking to bring about effective learning.

To better describe how I perceived those forces as working in the learning process, I'll use the metaphor of water ballet. Water ballet is a dance-sport in which one performs original artistic moves with grace and precision, in the medium of water. It is done as a solo performance or with others.

An Analogy

Two participants begin at ground zero with the desire to audition for professional water ballet [neither knows how to swim]. They will find their way to performance through different routes.

The first novice is comfortable with following rules and takes a rational, technical, and cognitive approach to learning to swim, through a step-by-step model: First, standing on dry land to mechanically try out arm strokes; second, standing in water to try breathing with arm strokes; third, squatting in water to practice blowing out air; fourth, learning to float by being towed around by a helpful coach; fifth holding on to the side of the pool and learning to kick; and finally putting it all together. This swimmer will have no problem with precision and synchronized movement. However, a sense of

play and inventive movement within water will be necessary to come up with the creative and original routines needed for water ballets.

An emotional, expressive, and affective approach, might be likened to the *sink or swim* method—being tossed in the water, learning to dogpaddle or some semblance thereof . . . and eventually finding a workable swim style—basically a *survive and thrive* model. For this novice, who has struggled with the forces, experimented and conquered water, a sense of technical discipline and refinement will yet be necessary to attain the graceful and smooth style that synchronized water ballet requires. However, because of the earlier experiments with water, this swimmer will find inventing original moves in water natural and easy, as a result of intuitive feel.

Both approaches work, they are just different ways to reach the same goal of performing creative and synchronized movements in water. In the end when both attain the mastery, you will not be able to guess which route each followed to arrive at a polished performance. They both have taken a journey around the learning circle from opposite directions to attain the same wholeness.

To me, this analogy illustrates two different ways one can express oneself through any given art form. However, usually it is not a choice of one way or the other, but a comfortable balance between tight control and loose expression.

Also, I strongly believe the degree of excellence achieved in the arts can be credited to dedication and a willingness to learn, as much as it is to talent or inclination. I've watched art students who were average performers become stars later in their careers and I've seen star students fizzle after initial successes. So, I have to say, as an educator, I had already surmised, that like the two approaches taken in learning to swim, the arts

contained both cognitive and affective (disciplining and freeing) tools in their respective toolboxes.

You can imagine my delight one day, in doing the research for this report, to have caught the following radio offering, that further elucidated these specific concepts.

Risk Taking

At this point, I would like to refer readers to a transcript of a short interview by Eric Liu, on NPR's *Day-to-Day* program. It captures what creative play and risk-taking can bring to technical expertise. (See Appendix A–*Profile: Robert Abramson of the Julliard School*).

Abramson, believed "music is the movement of sound" (Liu, 2004, p.81). In his book, Guiding Lights: The People Who Lead Us Toward Our Purpose in Life (in a chapter called *The Feel Teacher*), Liu wrote further about Abramson's unique approach as he taught students who were technically precise, how to be more expressive and intuitive. Liu noted that when Abramson told students to play around and freely make mistakes:

> The idea of embracing error was too direct, too frontal an assault on the bastions of high academic conservatory training. The traditional methods have as their locomotive force the power of moral judgment. *You are bad if you play badly: you are lazy or undedicated or weak*. Bob has many students who, as they play for him and flub a note or botch a chord, will mumble "sorry." And Bob will ask them, as they play, "Who you talkin' to? Is someone on your shoulder?" And they will smile nervously, keep playing—and keep on saying "sorry" as they play. (p.78)

Fear of not playing accurately is one of the limitations of conventional thinking. Divergent thinking allows for many variations—the freedom to relax and explore—the freedom to make mistakes and create.

Chaos Theory

In Rewiring the Corporate Brain: Using the New Science to Rethink How We Structure and Lead Organizations, Danah 'Zohar (1997) explains the role chaos plays in creativity this way. She stated that "Order means reliability, predictability, and control. But it also means limitation." And to consider the opposite of that, she states that, "A system that is totally chaotic is a system totally out of control." She points out that "the edge" is where precedence meets the unknown, where creativity and new ideas can emerge:

> In chaos theory, the edge is not a precipice. It is not something we can fall off, like the edge of a table or the edge of a cliff. Being "at the edge" is not the same as being "on the edge," or "over the edge." Being at the edge is a risky and exciting place to be, but in a different sense. In chaos theory, the edge is the border between order and chaos, the point at which self-organization arises from the meeting of stability and instability. (p.75)

Using a knowledge of systems theory, she states further on how that what happens at "the edge" is neither "in control nor out of control but poised delicately between the two, adaptive and creative." It is the place where there is opportunity for new thoughts.

Sketchbook Exercises to Explore "the Edge"

In sketchbook journals I consciously play with the balance of order and chaos in varying degrees. I start with a planned, structured composition and then bring

spontaneous expression to it. Then I do the reverse—start with spontaneous expression and bring varying degrees of structure to it. I think the same thing is true in integrating the arts. A teacher needs to teach the main domain skills of a subject, but then the arts make it exciting. Or teachers in the arts can inform the arts with domain skills from other disciplines. I think it can work either way: the arts can be integrated in other subjects and other subjects can be integrated in the arts.

For this thesis I needed to subordinate my expertise in the visual arts, as I explored other the art forms of dance, drama and music, but I found a common thread in creativity and discipline. [An aside: I was surprised to note that creative writing was not considered one of the major arts. It seemed to be tucked under the wing of *language arts*; and photography and film under the wing of the visual arts.]

The Earlier the Better

During this research, I talked with consultants who designed elementary curriculums as well as curriculums aimed at higher grades. (My bias for this study had been high school arts integration, but the consultants I interviewed clearly convinced me that the earlier arts integration happens, the better. Also at the elementary level it is easier for a teacher to integrate arts across the curriculum because he or she has the same group of students for almost all subjects.)

Methods

Semi-structured Interviews with Supplemental Observations

In this study I wanted to get a full-circle view of what was happening with arts integration. I decided on a research design that would yield both breadth and depth. Semi-structured interviews (Bogdan & Biklen, 1998, pp.94-95) were my primary data

collection method. I recorded and transcribed interviews verbatim and analyzed emergent patterns and themes.

At the end of this section is a parameter chart that identifies some of the relevant information about interview participants.

Through a snowball sampling technique (Bogdan & Bicklen, 1998, p.64), which is good networking, I identified candidates and chose fifteen people to interview: four consultants, three principals and eight teachers. I interviewed principals to gain insight on their school goals, contexts, and frameworks; teachers, to understand how integrating the arts worked; and, consultants, to shed light on various aspects of arts integration and its historical context. The interviews took place over a two-month period.

The Interviewees—Who They Were and How I Found Them

The consultants. One consultant, a former professor, was an educational researcher. She had been a guest in one of my graduate classes and had spoken on the intersection of cognitive and affective learning forces. Another interviewee I chose was an arts, non-profit, organization officer, working on a statewide pilot project involving elementary school principals. The principals were infusing the arts into their curriculums at foundational points. (I heard her speak at an arts education event and followed up.) Two university professors furnished me the history of their personal involvement in early stages of the arts integration movement—one had worked in the South and the other in the Midwest. One was a professional dancer. The head of his department had recommended him. He taught at two small universities. The other professor approached arts integration from a music and history background. As a Ph.D. candidate, he taught in the masters program of a large state university. (I made contact with him in a

serendipitous fashion, since I discovered that a relative of mine was enrolled in the arts integration masters class he taught.)

The schools. All three high schools could be considered small learning communities because each had a population of fewer than 400 students. The two relatively new schools (Discovery High and Spectrum High on the parameter chart) had college prep curriculums that emphasized arts integration. Both had been able to take advantage of Bill and Melinda Gates Foundation grants. The other school (Fulcrum High) had been in existence many years and offered a progressive alternative curriculum.

Specifically, I found that a school in which I had done some earlier observations had just embarked on a strategic plan to integrate the arts *across the curriculum.* Another school came to my attention through the recommendation of a classmate who used visual arts to engage students in her math classes. The final school I selected as a result of someone mentioning a physics teacher who used toys to teach physics concepts.

The teachers. Within the three schools my teacher interviewees came to me in different ways. In one school I had familiarity with some of the teachers due to an earlier observation, and with the principal's permission, picked my own candidates. In another school, the principal offered to select specific teachers who were good examples of arts integrators in non-arts subjects. In the remaining instance, a retired principal—someone I was acquainted with as chairperson of a School Board committee—suggested candidates in her former school and I asked for permission from the current principal to interview those individuals.

How I proceeded with the Analysis

Using constant-comparative analysis (Bogdan & Biklen, 1998, pp.66-68), I coded important themes found in the interview transcripts and used those themes in my examination, carefully watching for recurring patterns.

In addition to the interviews, in some cases I was able to do supplemental classroom observations. Where I had done a pilot observation with an interviewee, I obtained permission to refer to it as well. I asked my participants for examples of curriculum materials [artifacts] where appropriate. I transcribed 15 interviews, and my journal entries from five observations. Although this report's main data collection has relied on interviews and observations, to a lesser degree this study has also relied on documents, conversations, videos, publications, books, a professional arts education conference, attendance at professional arts organization meetings, and Internet research. Observations were included in Appendix B. Interviews with consultants and teachers were included in the section on Findings & Analysis. Each interview averaged about an hour. Interviews done with principals established a school's goals and climate, but they were not included as formal interviews in the arts integration findings.

Table of Information on Interviewees

Category	Expertise	School Level Expertise	High School Category		Principal's Relationship to School	Arts Integration Professors	Think Tank Educational Reform	Arts Organization Officer
			Progress-ive/Alter-native	*Arts Emphasis*				
Consultants								
#1	Lawyer Arts Commission	Elementary						•
#2	MFA/Dance	Univ/Elem				•		
#3	Ph.D. Curriculum/Gifted Child/Arts/ Aesthetics/Admin	Research/ All Levels					•	
#4	Ph.D. candidate Literacy/Music/ Hist/Curriculum	Univ/Mid/ Elementary				•		
Teachers								
Discovery High				•				
D-1	Visual Arts/ Arts Integration	High		•				
D-2	Humanities/Actor	High		•				
D-3	Humanities/History	High/Mid		•				
Spectrum High				•				
S-1	Sciences/Biology	High		•				
S-2	Humanities/History	High		•				
Fulcrum High			•					
F-1	Ethnobotany	High	•					
F-2	Physical Chemistry	Univ/High	•					
F-3	Language/History/ Drama		•					
Principals								
Discovery: D-P	Arts Appreciator	High		•	Implementer			
Spectrum: S-P	Artist	High		•	Founder/ Implementer			
Fulcrum: F-P	Arts Appreciator	High	•		Implementer			

Interview Protocol

Following are general questions I asked interviewees. For the consultants I tailored the questions to each person's background, and adjusted as needed. I basically listened, and let the conversations go where they would.

For teachers, I posed these types of questions:

How long have you been teaching?

Tell me how you became interested in integrating the arts with academics

Are others in your school integrating the arts?

Do you see students gaining artistically and aesthetically through this approach?

Can you give me an example of how cognitive learning patterns found in the arts and the non-arts may help teachers in integrating the arts with other disciplines?

Do some arts work better than others with certain subjects?

Do you find some students don't respond?

Why do you think they don't, and in that event, how do you work with them?

What safeguards do you build into your lesson plans for students who are tempted to skate by on their talent and avoid serious study?

Now that the state has made the arts part of the core competencies for graduation, how difficult do you think it will be to implement? Do you think it will succeed?

Do you think that it is strange for the state to require "standards" be met in the arts—an area of study that has long sought to break the mold?

How did you and your school principal first discuss integrating the arts?

What do parents think? Do you brief them?

How much weight should the arts have in a traditional academic subject, such as

math or the sciences, when it comes to assessment?

How do art specialists and traditional academic teachers work together to collaborate on assessment?

For consultants I asked these types of questions and used slanted scripted questions, depending on the consultant's expertise:

What cognitive skills do you feel the arts teach? How?

What affective skills do you feel the arts teach? How?

Since you no longer teach art as a specific discipline, but now specialize in integrating the arts, do you find it as satisfying?

Have you considered doing it the other way around—integrating academics in an art class—it seems to me that would be an equally viable alternative)?

For principals, I asked these types of questions:

When did you have an AHAH! experience with the arts, realizing that they taught other ways of 'knowing," far beyond expressiveness?

Does your school offer specific classes in the arts in addition to arts integration?

Do you have a plan for implementing the new state competency requirements? Do you meet with your teachers to collaborate on integration of the arts?

What types of monitoring plans will you set up to assess results?

For teachers relatively new to integrating the arts I asked:

Did you find it difficult to work with the art specialist? If so, how did you overcome obstacles?

How much time does it add to regular class planning to integrate the arts?

Can you give me some examples of student results that surprised you?

FINDINGS AND ANALYSES

A Shell Pecked Open

This thesis began long before the formal study for it. By that I mean it has seemed a culmination of everything I had so far experienced in the arts. And yet, at the same time, much like Jim Carrey's character in the movie The Truman Show, it also felt as if I had opened a door to an entirely new world.

Media critic Ken Sanes (2001) wrote about The Truman Show and stories that portray similar archetypal storylines:

> It may be that the characters have an inner urge to find out what is beyond their limited lives or there may be flaws in the seamlessness of the illusion that cause it to begin to break down. . . . In the end, they escape and discover the world they had been isolated from. (www.transparencynow.com)

My mind began to flirt with feelings associated with The Truman Show part way through interviewing my participants. I had not expected such a rich discovery.

In my masters coursework I initially resisted taking an introductory class, *Arts Integration Across The Curriculum*. Although it held some interest, I felt like I was suffering from arts overload. Just before registration closed for the quarter, a nagging thought made me reconsider.

I suspected it might be fluff—even slightly boring. It wasn't. The professor had connections in the arts that were very different from mine. Also, among the non-artist teachers taking the class were two artists with whom I could compare notes—a dancer and another visual artist. The final project was to design an integrated arts curriculum.

The professor let those of us already involved in the arts integrate other academic subjects into our particular art forms, while the non-arts class members wove the arts into their specific academic specialties.

During the class, one student mentioned observing a science teacher who taught physics with toys and another demonstrated how she used drawing skills to teach math. Both of these instances proved catalysts for me.

My mind began to chew on these examples as I thought about the possibilities.

I wasn't expecting to be swept up in this direction for a thesis, but it intrigued me, and when I began to interview my chosen experts, and do deeper research into the literature of arts integration, I found myself in awe. It was like a journey into a mine rumored to hide a mother lode, and the first blow of the pick ax reveals the illusive vein.

I mentioned an early inkling in my career that the arts taught more than just the arts. Based on that nascent theory I once took an algebra class to see if there might be a relationship between math and design principles. Although I had high hopes, I soon got lost in the lines of explanation on the blackboard and gave it up—until now.

However, in looking through the viewfinder of arts integration, it became pristine clear that the arts related to all academic disciplines. I hope this thesis provides that sane clarity for the reader.

A Change of Tack

Stand alone arts classes, and the arts as content in other academic subjects—two different approaches to arts integration. In starting this thesis, I first took the tactic of defending the merits of the arts as stand-alone *(*arts for the sake of arts*)* classes that should be included in the general curriculum—I thought the reason for including the arts

was to contribute to the student's whole person enrichment and to learn skills of cognitive and affective thinking that would transfer to other subjects. As I worked on the initial writing, I tried to capture the delicate balance that exists in the arts between invention and refinement—the freedom to create and the application of systematic discipline. And then, as I read more of the literature, I realized that arts integration was a much bigger thought than just stand alone arts classes.

I began to see that the arts had an important role to play by actually *partnering* in the *content* of other academic subjects. That changed what I wanted to write about and it became my main focus. My interest in how cognitive and affective learning from the arts might leverage other learning *still* applied, and it was now even more relevant. It became important for me to see good examples of this content partnering in practice—to verify that it worked and then to understand the underlying dynamics.

The Interviews

The majority of my contacts came as the result of investigating and networking. In reflecting on the interviews the following themes emerged:

1. *Individual philosophies regarding the arts and their integration within other subjects.*
2. *Analysis of arts integration as a successful learning strategy.*
3. *Successful examples of arts integration in action across the curriculum.*
4. *The standards, assessments, and pedagogies of arts integration.*
5. *Resistant forces, along with some history of arts integration.*

One of the findings unrelated to this thesis topic, was how busy the schedules of teachers and principals were. Every moment of their time was accounted for—and then some (responding to students, parents, administrators, and paperwork; the ongoing need

for professional development; formulating strategies for best serving academic requirements—all of it demanded daily, hourly, minute-by-minute attention). And, when this thesis made yet another request on their time for my interviews and observations, I was graciously invited to intrude in their busy lives, for which I was most grateful!

Some of the interviewees used the formal term *arts integration* to describe their lesson planning process; others used arts-based strategies to engage student interest, but did not formally refer to it as *arts integration*.

My first interviewee was a professional dancer who had participated in an early nationally based experiment, to integrate the arts as content in other academic subjects. While it is true that arts for arts' sake is enriching and engaging, offering the arts through other subjects brings them to everyone, not just those who take an arts class. Integrating the arts can powerfully bring the entire curriculum together in a more collaborative and synergistic learning effort.

Think of the following interviews as narrative, rather than quotes. Each painted a different part of the arts integration picture as they shared their thoughts.

Consultant-1: The Perspective of a Performance Artist and Educator

Thoughts about the arts. Consultant-1 was a professional performer with an MFA in dance. He was also an adjunct professor at two colleges, where he taught teachers and future teachers how to integrate the arts in the curriculum.

I asked Consultant-1 about his feelings as a performer, and what he most enjoyed about his art form.

"I love to move, I think there is a spiritual connection—the physical manifestation of Spirit. And also, it's that . . . the arts are *way* beyond a *form*. They are

human capacity that is innate in every one of us. . . . It's something that's *ancient*. Dance is the way that indigenous cultures—ancient cultures—connected to the universe. There was this deep religious, spiritual connection. . . . Spirit means breath."

I asked him if he thought teaching was as interesting as *doing*:

"[Yes], I don't separate them out very much. I find I am *being*—as opposed to doing. Teaching is a state of *being*. Dance is a state of *being*."

The arts integration movement. Since Consultant-1 had been involved in some of the earlier national efforts to integrate the arts with other academic subjects, I found our conversation especially insightful:

"I began teaching in 1981, at a fine arts magnet high school in [city's name], Georgia . . . I was teaching dance at one of the first magnet schools—and it's very well known in the field, [school's name] Fine Arts High School, integrating the arts, 5th through 12th grade. It was a proximity-integration [stand alone arts], as opposed to an immersion- or collaborative-integration [integrated in content]. In other words—it integrated because we had the Spanish class next to the jazz class . . . the kids went from a very foundational driven approach toward the arts to a science class or a humanities class. Art was not integrated in other academics. It provided vocational emphasis along with a very high academic focus—that's what they did in the Eighty's.

"If you've read Charles Fowler's Strong Arts Strong Schools, he really lays it into the arts education community that we missed the boat. There was a lot of funding in the mid-Seventies to early Eighties, and to do these kinds of magnet schools they went vocational.

"After I did two years at that magnet school, I wasn't quite ready for teaching, because my MFA was in dance performance—a conservatory track and there was no pedagogy or dance education. I was trained to be an artist, so how to teach, how to be aware of children, all those issues—I was pretty much self-taught."

I asked how he became interested in arts integration and he candidly shared his thoughts:

"Work—money! That was [city's name], Georgia. I was trying to be a dancer in a small sleepy southern city. Opportunity came and I was earning money, not much money, but I was earning money. Well, I did like working with young people. I had a particular affinity for it and a gift for it—not necessarily the learning or knowledge that went with that gift.

"I did artists in residency work for six years after that in South Carolina. (There was a major effort in South Carolina.)"

[At this point, Consultant-1 described the *specialist* model of arts integration as being with the same group of kids over a year, while a *residency* model meant shorter visits.] I asked him if he liked grade school, middle school or high school better.

"Let me go back to the chronology. I did the artist in residency work which gave me a lot of short-term experiences with learners in all kinds of different settings—from inner school to rural, to suburban to wealthy, to poor—a lot of diversity in experience, and *because* it was short-term—I just had to come in and *do* it!

"It was one or two weeks in different schools. Artists in residence formats that they have through the arts commission are generally short-term time when you're there everyday—but you're there for two weeks. Actually the relationships I built because I

was there everyday were deeper than when I was just a movement specialist. In 1986 to '87, [the city in Georgia] was revamping their arts course, and they brought in a fellow named R. B---------- who has started arts integration programs all over the country. He did one in North Carolina [program's name], and then he did it with *our* arts council, and they developed an arts integration project which involved 3 school districts—2 counties and 3 states—all four arts. They hired drama and dance specialists, so I ended up being an integrated arts specialist in dance at an elementary school in [city's name], South Carolina. It had 1100 students, K-5. It was quite a unique pilot. We had a lot of funding—Coca Cola money, a lot of NEA funding—it was part of an initiative in South Carolina—*Arts Are Basic*—which was an incredible project. It was right around the time national standards were coming into being and I was on several review panels

"They were bringing [the review panels] down to South Carolina, because South Carolina has a very active arts commission and . . . the arts in South Carolina are [still] pretty amazing, because of what they did.

"I was actually working with the classroom teacher with math, science, language arts, and social studies. Music is math, visual art is math—I mean you can't explain color theory . . . or light or pigment, without exploring science. In language arts, it's sentences—it's line, if you are studying line.

"We basically looked at where their curriculum was—the time I would be there, themes or perspectives over years. Then I would create lessons, and curriculums. We would always do separate segments that would cross over. Often . . . when I wasn't teaching directly, I would be sitting in classrooms trying to link. It was a very extensive

effort. The manual I created was about *that* thick. Again this was late Eighties, early Nineties."

I asked how he approached linking music to history.

"Bach or Mozart lived in history. I didn't do music, I did dance history."

So then I asked, if he would teach the Cotillion.

"If we were studying social dance, but if we were studying ballet or another art form—or looking at the nobility, or looking at ethnic dance in terms of world cultures, then we would go to that level. I used a lot of video. I'd do research. The kids did a lot of research. They did a lot of digging on their own. The teaching was done in separate rooms. It wasn't integrated on a team teaching level, [but] curriculums and conversations were integrated."

I asked if the integration approach was satisfying for teachers of non-art subjects.

"It was a pilot. I think it was satisfying. It was a very successful project. . . . We had self-assessment, observation charts, rubrics—we had all kinds of stuff—written tests, mostly on terminology. We had all these standards we were working with. This is the time when the national standards were coming out, so we had drafts of those. South Carolina was working on standards at the state level, and I was involved in some of them. . . . I left at the end of the pilot, because I wanted to go on [and] do other stuff."

The five components of arts learning. "Here's the really interesting thing I feel about this arts learning and arts integration. Two years ago Bennington [a university in Vermont that integrates the arts and sciences] had a symposium . . . a follow-up to the one in Los Angeles. It was called *Art, Artists, and Teaching*. They invited folks to come to Bennington and look at Bennington as 'a model of the way we integrate.' They really

articulated out of that symposium that arts learning has five components: *Making, attending*, *creative problem solving* (and I would add *creative problem making*), *taking responsibility*, and *experiencing*. And what they . . . encourage, and really see, as what's going to happen . . . is the classroom teacher and the teaching artist working together—collaboration, the CAPE Model [Chicago Arts Partners in Education]—which is the Chicago model—capeweb.org.

"That is just phenomenal work . . . [and] the Annenberg in Minneapolis, with its list of the varieties of arts integration . . . with all levels to it. . . . Right now I'm interested in pedagogy. I'm even finding another word for that."

The word pedagogy questioned. I asked him how he defined pedagogy.

"I remember a statement by B----------, a math professor at the University of Alberta who's written a lot about teaching and learning in a complex world and working from a systems perspective. . . . He made a powerful statement at an education conference . . . at UBC in '99. That 'When you really think about pedagogy it takes us back to that Greek word of pederast where the greater man infuses the lesser man'—not necessarily at a sexual level—but it's again that kind of pedagogy that to me is a word that implies a power differential.

"One of the things that B---------- talks about in *his* work (and the people he is working with on complexity science in education)—'What does it mean when the classroom *itself* is the collective learner—an organizational organism that is learning collectively—and it just zips all over the room—and the teacher is more the facilitator—*really listening* to what is emerging?'"

I said I thought that sounded like a Socratic seminar.

"A Socratic seminar is an example of that."

I said it also seemed very democratic.

"Yes, it is democracy."

He had mentioned democracy on his website. I asked Consultant-1 how he looked at democracy in regards to integration of the arts.

He then shared a teaching experience in which a collective style of learning took place. His role as a teacher had been facilitator, but more importantly, he had worked alongside the student group as a fellow team member—helping them discover how to create a dance performance.

"I did this really exciting semester-long project at East Academy [with] integrating arts and academics, 6-12. My last year there as part of professional development, we were to do a research project . . . I came across this book called Intrinsic Motivation: Building Energy and Commitment at Work—which is about self-organizing teams.

"I developed with five eighth graders, a team approach to learning about choreography—about making dances. I explained the process and used the idea of a journey . . . I called our destination, making a dance . . . we had no idea what that dance would be, but that was our destination. And I had a list of about 20 to 25 different choreographic approaches. They chose four and I chose two.

"The first thing that we did was data collection. We talked about learning styles. I had a movement affinity chart. We did a lot of getting to know each other as a team, which was great fun. My movement affinities chart was a whole list of different kinds of movement. 'Which do you really like to do? Which are harder? Which really make you

feel uncomfortable?' So they had that information and then we just started. . . . We did different choreographic approaches, and about the fifth week into the semester we were talking about insects—about movements of animals . . . and somehow insects came up and . . . all of a sudden, one of them went 'Hey there's this really cool book in the library called bugs! I think we should go look at it.' . . . It was just this whole amazing sharing process and we sat at the sofa in the library and had this big coffee table book of all these awesome photographs of the bugs—and we did an insect piece.

"In that process, I took a Socratic seminar rubric a colleague of mine had done with positive and negative behavior and . . . adapted it for the creative. Then I shared that with them—'This is what I'm looking for.'

"And then we were working on the dance, and I said, 'I'm going to sit on the side and just observe you.' . . . They did this awesome thing where they wanted to carry one of their colleagues around the room over their heads—there were five of them. Lifting is a very challenging thing and they worked it out. . . . With the final, I had these co-opter bands—which are heavy surgical tubing wrapped in felt. (We'd been playing with them all year.) And I just dropped them in the middle of the room and said okay, you have an hour to make a dance. I'm going to be sitting here observing. And they just got so engaged, so vibrant in the level of creativity, and courtesy and respect. . . . I couldn't even keep up checking the [rubric] boxes. . . . I had to put it down and just watch—just watch, yeah—it was a great experience."

[This reminded me of something I had read in the Annenberg Foundation article (Werner & Freeman, 2001), about how, in an approach to learning that is arts integrated,

"'students are viewed as leaders and explorers instead of being viewed as empty containers the teacher is required to fill up'"(p.7).]

Teaching teachers how to work with the arts. Next, I asked Consultant-1 how he worked with student teachers to help them integrate the arts.

"You are always dealing with people who have various levels of the arts. And then again, we live in a time when the arts are driven by *form* and *product*. There is very little understanding of *process* and the innate *capacity* within all of us.

"Arts education is the least of being aware of that process, because you have these large vested interests in the schools—band, choir, orchestra, drama club, *heavy production*, *mass-driven* stuff—*talented* kids, *untalented* kids.

"So it's the whole kind of generalist's approach of seeing it as arts learning—as parts of the teaching strategies and tools available to teach—now that we know the Gardner work [on multiple intelligences], and this—Eric Jensen's book—Teaching with the Arts in Mind, based on brain research, and in his other book, Teaching with the Brain in Mind (my school in South Carolina is mentioned in there)."

The arts as healing. I asked how he worked with conservative, non-arts teachers to help them integrate the arts in their teaching?

"It's very satisfying. I treat it as a healing thing—that they were wounded, that someone told them when they were doing the first kind of creative things that 'That's not a tree'—and also because the system was driven, and still is in some ways . . . by facility."

I asked if they could still teach the arts if they didn't feel they could be creative.

"It's again helping them reframe what dance is, what drama is, or what theatre is. *Reframing* it. 'We're not asking you to be Baryshnikov, we're not asking you to do [a professional ballet production].' With Anne Green Gilbert's work—with concept-based curriculum (and especially in this state with the professional growth plan . . . that the arts are mandated in the curriculum), the classroom teacher will be teaching the arts. It becomes imperative to them to become learners and transform their limitations, and it's really interesting—with adults—you just have to give permission, I mean we still like to play—it's very important to play. And that's what I help them do . . .

"After all, you don't have to take ten years of dance class or ten years of painting class before you can begin to paint a picture—to see!

"Every now and then you have to go beyond your comfort zone if you want to learn—and you have to take your learner past *their* comfort zone and sometimes it's messy, but teaching is messy! It's not a sort of orderly control issue—and there are many ways . . . that's what I love about [name of college he taught at]—with their *democratic* classroom work. You work with your learners—the collective—the classroom—and you work out a way everybody is involved in the management, instead of the teacher taking on the overseer role. The conservative learner?. . . Again—be patient, develop your resources, do other learning, take an art class. If you're going to be in this profession, be responsible for your own personal development rather than waiting for the state to create an in-service for you."

A systemic problem—attention and resources at the end of the process instead of the beginning. I was curious what he might have to say about the recent K-12

experiments in assessing student competence in the arts, and the states new graduation requirements based on those assessments.

"Well . . . there's a systemic issue. . . . Because of the business climate, it's a *managing-by-results* model and the system is investing all of its energy in results, in determining what those results would be. . . .

"They need to invest funding at the *beginning*—and *throughout*—and *reduce* assessment funding. I'm talking about teachers—the way they are preparing the delivery system. It's the assessment all the money is going to.

"It's the same way with [mandated testing]. [Tens of millions] of dollars a year go to the educational industrial complex—the testing companies—and a little bit onto textbook companies. Can you imagine, even if they reduced that [spending] . . . in half—where it could go. So, to me . . . it's very important to *build* that *capacity* and understand the beginner, the *beginning spot*. . . . (But I do appreciate *some* of those assessments because they *really are* at a beginner level.)"

Since I was a visual artist, and aware of the important role individual choice and expression play in creativity—and since there is a downside to measurements in the arts—especially with beginners (succumbing to discouragement or conformity)—I asked him if he had any advice for learners.

"'What is your voice?'—If the teacher is determining your voice, and that's the way you demonstrate your competency as a learner through someone else's voice, it's almost like the real assessment is after that—when the learner takes those concepts and that *process* and applies it to something that is of meaning—the *transfer* point.

"Part of that is *capacity* . . . and I am using the word *capacity*—I don't use *skill* any more. I have a real *issue* with that word. It's a *mechanistic* word, and it's very driven by a technique, and it's not *all* technique—it's intuition, it's feelings, it's senses—*it's imagination*!"

Aesthetics. Lastly, I asked Consultant-1 to talk about aesthetics, cognitive thinking, and affective thinking—how he thought about them:

"Aesthetics, well we cannot separate cognitive and affective, we have to find a way to weave them because that's the way *they* weave. Aesthetics is really about *feeling*—about beauty and feeling. If you think about it, its corollary or opposite—anesthetic—[is] numbing or *loss of feeling* (and we need to bring that up more!)

"*Affective* is social setting, or emotional. Emotions and feelings are not the same. In the West we confuse these. Feelings are actually deeper than that. . . . It has to do with perception, with the whole nature of seeing beauty—recognizing beauty—sensing within oneself, beauty. But beauty can also be disturbing, provocative, upsetting, pretty.

"Aesthetics is the *soul* of it. Affective is a lesser word than aesthetic. Aesthetic is the frame that holds them together. I want to get away from using those terminologies of separation. But if you lay down Bloom's Taxonomy against the thirteen thinking tools [Root-Bernstein, (1999)], which is the pre-formal state or meta-logic, we are working in a non-conceptual place. We're working in a non-symbolic, non-representational place, which is a deeper level of being. Cognitive is in there, it's all in that definition. Aesthetic involves the heart and the body. It's response, appreciation, it's all these multi-levels."

Consultant-2: A Comprehensive, Sequential,

Standard-Based Approach to Effective Arts Teaching

Consultant-2 was a lawyer and young mother who regarded equal access to the arts an important right regardless of socio-economic realities. As a mother she had volunteered at her children's elementary school and the insights gained there informed her views of arts and arts integration. During that time, she also served on a suburban city's arts commission committee. More recently, she has been director of a statewide, non-profit, arts education group, that networks arts organizations. It supports and promotes arts education in public schools. She was currently involved in creating and managing a pilot effort that encouraged principals at the grade school level to embrace the arts curriculum-wide. On a warm spring day, as we sat on some park benches, she reflected on her arts commission experience:

"I was on the arts commission for four years that's where the education committee was, it was a subcommittee of the commission . . . their mission was to enhance the community through arts. With that in mind, that's what I was working on.

"The difference between one school and another was socio-economic which translated into the number of parents that were free to help in the classroom etc. etc. It so happened that my kids were in the catchment for a school that had 30 % transience and over 50% free and reduced meals and therefore were basically not as fortuitous as a school that was a mile and a half up the street and had parents fighting to get into the classroom. The school I was in had the same ten people that turned up and I was one of those.

"The difficulty and the thing that made me start to work at district level was that it's very hard to fix one school at a time on your own. You need to . . . for me it was to go up to district level to help everybody and help the schools that were in [that city]. So that's what I did and over two years I wrote four grants to the State Arts Commission and to the County Arts Commission and got around $ 40,000 . . . and created this project where arts education consultants wrote visual arts lessons with the teachers and then they were piloted and tested and revised and published."

Stand-alone (art for arts' sake) or arts integration? In the beginning, Consultant-2 had wanted to make the arts available as stand alone disciplines, but needed to change plans when she found resistance from a district concerned with teacher overload.

"It wasn't that I wanted to integrate the arts I wanted art for arts' sake. But the school district—my plate runneth over—it was more a question of that the teachers didn't want to see something else coming that was adding another string to their bow, another facet they had to teach, so if you said 'Well this is integrated and this will actually help you teach literacy,' it was likely to be better received.

"So that had been the original plan, but the district had said we need to be integrated so that we're not adding to their burdens etc., etc., so we talked to our consultants and they said 'Great, we've integrated with math, we've integrated with science before, we've never integrated with literacy. That's a very exciting project, we'd love to be part of it.'"

Consultant-2 described their initial presentation on integration of the arts to the teachers. Apparently it was far too intellectual. She said it was a surprise to find that teachers actually preferred the idea of learning foundational hands-on art. (They needed

the training, in fact, to be comfortable with the idea of integrating the arts with their other subjects.)

"The first introductory meetings the consultants came along and talked about integrated art and literacy but it was very high level. Teachers basically said we need art, foundational art. So in fact their voice was not in tune with what the district had said, so it was interesting—a little bit of discovery for us. They were being protective of their teachers—not to over burden them. . . .

"We turned up at the first meeting with ten teachers who were going to be part of the review team. . . . They were getting release, the district was paying for subs for the half day every three weeks, it ran October to January or something like that, so every three weeks we had them come and review a set of lessons per grade level. We'd make one and we'd do some art, and so they got to do hands on and they'd have to edit them and give feedback. . . .

"At the end of the two-year period we had two volumes with 70 lessons in total K-2 and 3-6, ten for each grade level."

What if children missed the concepts taught earlier? In the case of sequential lessons, Consultant-2 recommended that children who had missed the basic lessons could easily be taught the foundational lessons at a higher grade using the same basic lessons—but to expect a higher level of detail and control.

As a designer, myself, I totally agreed. I thought the lesson concepts she referred to could be likened to the alphabet. Grade school and grad students alike use the alphabet, but to differing outcomes. The arts can be taught sequentially, as universal sets

of principles; and these principles can then be used in an infinite number of ways to achieve an infinite number of results.

Consultant-2 elaborated further:

"I *used* those lessons. I taught the first grade lessons to my third grade class because they were *challenging* lessons, *sequential and comprehensive*, so it would be almost impossible for the kids that hadn't had the five previous years. So when I go into a school to offer them these lessons to use or recommend them to use this program, I say don't even look at the second book. (The first book was K-2 and the second book was 3-6.) Don't even open the second book. Start teaching your 4th graders the 2nd grade lessons, just expect higher detail, higher control. You know just let them have fun instead of feeling like they're failing. And get that foundation in there because they haven't got that K-2 foundation. Most of the K [kindergarten] stuff . . . now I've gone into my first graders class and taught the K lessons. I went in every other week and we shot through those guys. They knew the concepts already. . . .

"I did all that as a volunteer, I ran that program as a volunteer, I created that, I wrote the grant, The books still exist. . . .

"Just to backtrack we were thinking, 'We'll work with the parent art docents.' A couple of us on the committee *were* parent art docents. In a school situation they are normally parent volunteers who go in and teach art once a month.

"That's what I meant when I talked about the socio-economic thing, so in the white collar neighborhoods where there are lots of stay-at-home moms they're fighting for a chance to go into the classroom and teach their art and show "Here's a Matisse, and this is dah-dah-dah, and here's how to make a little project," but it really made me

nervous because there was no control, there was no educational continuity. I saw children be frustrated by the project that the parent thought was a cutesy little project, but it wasn't age appropriate; it wasn't standards-based. I guess I'm just a control freak, but it didn't do a lot for me."

Standards needed. "I taught for a while . . . I didn't know what I was supposed to be teaching these kids, at that stage I didn't know about arts standards for the state and most people around didn't know. . . . They give you a little set of lessons. Most of them are . . . I don't want to be unreasonable here, but . . . 'Here's a picture and here's some art history, and here's a little project and everybody copy and do the sunflowers'—it did nothing for me. These were not teachers; these were parents, PTA volunteers. Mostly they were somebody who loved an opportunity to get into their kids classrooms, some of them were good, but there were no standards, no training . . . it wasn't art at all it was crafts. And [while] I have no objection to crafts, they are great fun [and] many crafts get adopted into the arts like glass, weaving, stuff like that, but paper plates and lolly-pop sticks, they just didn't hack it for me, so I knew that I couldn't change one school from within—just as one parent—so as a mayor-appointed commissioner it was a different story."

The Schools and the Teachers

In my interviews, I found there was no one-way to integrate the arts. Everyone did it differently. Some schools did it with existing staff, some hired outside art specialists to work with their traditional academic teachers. Some integrated the curriculum with stand-alone arts classes, others integrated the arts *across* the curriculum in the context of other subjects– and some schools combined the two approaches. I also

found that some teachers didn't consciously set out to integrate the arts, but nevertheless did it naturally as part of their teaching style.

Discovery High School

A conscious integrating of the arts in high school to create well rounded students and provide another way to "know" things. Discovery High was a high school that offered a rigorous college prep course with an emphasis on the arts. Their vision was to strive to "eliminate the achievement gap through a rich academic program that is enhanced through its focus on the arts and its location in the heart of [the city's] cultural arts community" (School website, 2005).

The school had been formed as a result of two communities coming together to solve a problem of geographical school availability for their children. It was based on a vision of rigorous academic training infused with the arts. An arts-rich environment that offered professional ballet, opera, art and theatre surrounded its campus.

Eventually, the forming team that brought the school into existence moved on, but the staff, including newer members, successfully carried the vision forward. The new principal, while not an artist himself, was an appreciator of the arts.

On an early visit, I saw an intriguing project displayed near his office—original designs of life-sized shoes, created with monochromatic cardboard and tape. Later, in the student lounge I noticed nautilus shells sewn in different styles on large fabric squares. The shell wall hangings looked like they might have come out of an assignment to integrate geometric shapes with fabric arts.

A new strategy. In a recent decision, based on the current budget, the school had chosen to discontinue its stand-alone visual arts class and was embarked on a new strategy to offer the visual arts in conjunction with other subject areas. This effort was managed by

an arts integration team of Teacher D-1 (the former visual arts specialist), and Teacher D-2 (a Humanities teacher and professional actor). I interviewed both members of the team together and asked them how they were proceeding.

Teacher D-1 and D-2 In a Joint Interview

Teacher D-2 spoke to the reasons behind the new strategy:

"We eliminated the stand-alone visual classes for the most part, because it gave us more bang for our buck to do the integrated process. Our feeling was that more kids in the school would benefit from more opportunities to learn about visual art . . . Every kid who did a project in every class would benefit from having some support."

Voluntary Participation. He talked about staff reaction:

"This is the first year we've really tried to do this in a concentrated way. We just said, "We aren't going to force you—anybody—to do anything. We'll just leave it open." We were sort of voted on the island [reference to TV series *Survivor*] by the staff, who said they thought this project was worthwhile and they wanted to try it. . . .We knew there were going to be enough people who were interested in doing it so we didn't make it mandatory. Having said this we've had interest from every department we've worked with—at least someone in every department, and we've worked with 90% of the teachers."

"And so the art integration projects we have worked on have been mandatory for all students . . . with the teacher saying 'I want to integrate art in this lesson—here's my objective in terms of my subject area, here's the Spanish vocabulary that I want to teach. I want to teach food.'"

"Then [Teacher D-1] comes in and says 'Okay, well based around that and some ideas you have, here's a project I think would fit, and it's going to teach these visual arts skills.'

"After the teacher has introduced the vocabulary on Monday, [Teacher D-1] will go in on Tuesday and teach the visual art skills and introduce the project, and there will often be work-time during class where [Teacher D-1] is available. And again she'll invite students to come for help outside of class.

"The way that we've done most of the assessments up to this point is by working closely with the teachers and saying 'Here's what we're looking for,' and building a common Rubric, and, 'It's one that you, the classroom teacher, is going to use. [The visual arts specialist] can't be responsible for grading it because there's all of the content area stuff.' And, although [Teacher D-1] knows a lot of Spanish, she shouldn't be responsible for grading the Spanish teacher's work. So we've kind of put more of the onus on the classroom teacher to grade the visual arts stuff—with help from us.

Teacher D-1 chimed in: "But [we've] given them some input. . . . built a rubric, and at least given them some basic expectations like: if we're teaching some basic visual arts principles, these are what the teacher should be looking for—is it a lesson in composition?—is it a lesson in using color, or should they be having some movement in their art?"

Teacher D-1 had noticed better staff/student relations as a result:

"Getting to know kids artistically has . . . I think enhanced their experience here at least from the staff communications [experience]. Where I feel like going to a teacher and talking about a kid who might excel as an artist—but that teacher doesn't have that

perspective—now that teacher sees that kid's art within their classroom, and we can talk about it as a staff and know our kids in a more well-rounded way."

Is there any student resistance to visual arts integration? I asked them how they worked with students who might not have taken a visual arts class before and might not feel comfortable with the visual arts.

Teacher D-2: "We've also heard from students saying, 'Get your silly art stuff out of my math class because I'm a good math student, but now you're making me do art here and I don't want to do that, I just want to do my math.' . . . First of all, we're not in their math class every day. We do one project or a couple projects a year and it's just a balance, you have to say, well o.k. maybe you're not going to really get into this project as much. It's not going to kill your grade. And hey—maybe you could try it and see if you get anything out of it at all."

Teacher D-1: "Right! There's a life lesson in having to do things that you personally don't see the benefit to, but you have to trust we are looking for a well rounded exposure. . . . As teenagers I think they are programmed to resist—anything that might be considered resistible."

Teacher D-2: "You're not going to please every single student, even in a small school that has a pretty clear focus."

Teacher D-1: "We've also built these projects to be fairly open-ended and creative from the kids' point of view. Very rarely do I walk in with an end piece and say, today we're going to make this bouquet, or today we're going to paint this landscape. Most of the time it's been a very unstructured end result by way of some structure. At

this level you don't want to just show them the end piece and have them come to that. It's given us some diversity. That's been nice."

A well-rounded arts education.

I asked them how they made sure the students were well rounded in all the arts. Teacher D-2 offered this about their program:

"[We] provide students with a history of the arts . . . where it comes from, what it's rooted in . . . arts criticism . . . we offer the students a lot of opportunities to see the arts and to experience them . . . we're in a great location to do that, and then an opportunity to create art and to perform or exhibit, so through all of those, hopefully we're creating an environment that is arts rich and shows students that art is all around them and that they can experience it and do experience it and we can help them experience it in a more fulfilling and rich way."

Teacher D-1 added:

"You don't have to be the artist, you can be somebody who is powerful in your communication skills about your feelings about art . . . I think the kids have been writing about art quite often in most of their classes . . . If they don't feel like they have an eye or a hand, they might feel like they have a voice about it. And so I think that that's kind of a by-product of what we're building that has been of value."

During my visits to the school, I discovered that Teacher D-1 and I had both spent time in the commercial art profession. I asked her if she had time for her own art, since she was involved full time in teaching and integrating the arts. She allowed that she didn't have much time for her own art work, but that this endeavor with arts integration

was a new form of art, and she felt fully engaged and fascinated with it. In Appendix C are worksheets and a sample assignment used by Teacher D-1 and Teacher D-2.

Teacher D-3: A Multi-Media Presentation with Something for Everyone

What drew my attention to Discovery High as an intriguing phenomenon to probe more in-depth, was an observation of a history class. Teacher D-3 had been an instructor in an alternative school for many years before joining Discovery's staff. When I visited his class it was just beginning a history lesson that covered the last hundred years of U.S. and South American history.

His teaching style was high energy, and the decades assignment itself turned out to be so full of possibilities that it made me want to do high school all over again. (At the time, I didn't know that what I was watching was actually arts integration, and later I discovered it was just something he naturally did to engage student learning. A pilot observation from that class and the assignment is included in Appendix B—*The Decades*.)

I chose to interview teacher D-3 because I found *The Decades* assignment to be fascinating. Instead of my original intent to observe just one class, I watched the entire group of presentations throughout the quarter. The assignment involved the humanities and the social studies departments in a huge collaborative effort of coaching, teaching, research and assessment. Student groups had the option to choose any mode of presentation or subject matter to represent their assigned decade—film, writing, skit, photo exhibit, fashion, food, power-point presentation, speech, dance, visual art, music, sports, cars, industry, furnishings, etc. In addition, they were given some direct

instruction. Their overall grasp of the material was assessed through reflective papers and peer evaluation.

Several curriculum offerings supported these endeavors—a film class, a visual arts class, and a drama class. (On an earlier visit to observe improvisational instruction in their drama program, I had watched students in the midst of creating a play from scratch using dream sequences: see Appendix B—*Creating a Play from Dreams*). As might be expected, the final presentations for the decades project represented a range of quality, but some of the projects were amazing in their professional polish.

Teacher D-3's experience as a traditional alternative instructor. I asked Teacher D-3 about his background as an instructor in alternative schools:

"The last 22 years of my career have all been in small alternative schools. . . . There are as many definitions for alternative school as there are alternative schools . . . the vision of every school is different. You could consider every school an alternative school if it has a unique or different focus from what the norm is."

He mentioned the decades assignment came out of that experience of exploring many ways to engage students in learning:

"It's something I had done in the past, and being here at Discovery High, it just provides a way to do that integration more thoroughly. As a humanities teacher I'm already trying to think of ways to fine-tune it even more and to bring in more of a museum aspect to it, because of the artifacts, and I would like to see the decades projects evolve. I'm meeting resistance because it's labor intensive for the teachers—three are involved, but it's every week—every Friday it was another three presentations, and the whole class was involved in the presentation."

I asked if it felt like putting on a full-blown theatre production every week.

"It felt like that in some ways—it definitely did! Obviously you rely on the kids. And the nature of the decades project, especially, is one that they can really get charged about and have fun with. . . . It was attached to twentieth century, pretty much western history . . . theoretically it's a hemispheric study, although there's a lot we need to cover in 9th and 10th grade with the U.S. history component—that definitely carries the day, as it were, in terms of our curriculum. Next year we'll push even harder for Latin America to be a bigger part of the curriculum. There was a component in each one of the decade presentations, but there was a small piece in comparison to their own culture, which is what they wanted to celebrate and what the kids emphasized . . . their own culture meaning the United States. So we'll see what happens. The jury is still out, and we might be doing more of an oral history project next year, and doing less of the decades presentation. But there are definitely components of the decades project that are going to get woven into it at a smaller level—into other things that we do anytime that we're asking them to look at a period of time. And they can bring in artifacts and play roles and bring fashion into it and really bring that time and that period to life."

Depth and breadth. "The decades project is definitely a project that is both in breadth and depth, because it takes on a spectrum . . . all the different aspects of society and culture.

"It's not just what's incorporated into those presentations, but. . . . oftentimes, what comes to the surface is a student's commitment to really digging into their particular aspect of that.

"We had a student . . . for example, I don't know if you remember this, from *the 20s* who went out and interviewed someone who restores Model-T's and then he went on a ride with him . . . his topic, his piece of it was transportation in the 1920s, and that's what he chose to do, he went on the web and he found somebody that restores Model T's, he called him, asked him if he could interview him, and ended up turning it into a film. So it definitely has the breadth of culture . . . the spectrum and what it is they are asked to look at is very broad, and then each individual has the opportunity to go deep into it."

He talked about audience responsibility—the audience assignment was to ask questions of the presenters—and about how the process of the presentations and the audience questions worked in tandem with the teachers' direct instruction responsibilities:

"The intention was for them to come with a foundational understanding of what that decade was about, already, so that their questions could be a lot more educated and it could really challenge and push the people who were presenting from that period. That's also part of the labor intensity for the teachers . . . not only are you orchestrating and preparing a particular group for their presentation, but you are also looking very closely at what's missing and what isn't. And then making decisions in the follow on week, to kind of touch base and fill in those gaps—so it's a pretty intense thing."

Spectrum High School

A rigorous academic program with city arts groups as active partners. Located in a different city, was another arts-integrated high school. Four years after the school's inception, its mission was still guided by its originator—an artist, former art teacher, and one of the school's current co-directors. Its founding had been a labor of love for all

involved. Its formation was carefully orchestrated in partnership with all of the major community arts organizations, and with the school district. Many of the current core staff had worked to help create the school. Together they had remodeled an old warehouse in a neighborhood just beginning to reawaken from a long period of neglect. At the time of my visit, I noticed the school's location served as cornerstone to the new cutting-edge, arts and museum community developing around it.

The support from partnerships. Rather than a single principal heading the school the school government was structured with two co-directors who served in tandem—the founding artist, and a business partner who took care of all administrative detail. A 501(c)3 fundraising arrangement maintained a formal connection between the school and major community arts organizations for ongoing support of school activities.

The school's mission was to "establish an urban center offering a creative path of learning which emphasizes human expression through visual and performing arts as central elements in academic achievement and lifelong endeavors" (School website, 2005). [For lack of a better description it might be referred to as an arts magnet school.]

I'll refer to this school as Spectrum High. The campus of Spectrum High also shared borders with a large college and was able to partner with it for some academic course offerings.

Teacher unions differ in hiring climates from city to city, based on organizational rules. For that reason and other circumstances, Spectrum High seemed to be freer to integrate the arts in a comprehensive manner. Adjunct art specialists were on staff to work with traditional academic teachers. Stand-alone classes in the arts were also offered. As I arrived, students were hanging their professionally framed artwork in

gallery-fashion along the entry hall. The founder stressed that students were encouraged to aim for high professional standards in all of the arts, and that authentic experiences were incorporated as part of their schooling whenever possible—whether in the performance arts or other art venues. For instance, a student might work on a visual arts assignment with the intent to enter a professional show; or prepare a scene in class with the purpose to audition for an actual play.

Because of its location and my window of research time, I had less access to this environment—nevertheless I gained rich insights into its arts integration efforts through my interviews.

Teacher S-1: A Non-Arts Expert Takes on the Arts

In the science area, Teacher S-1 was a biologist who had been head of the science department at a large comprehensive high school before joining the new school effort to help design the curriculum (also a former sports coach). He described how other classes worked with his subject matter in integrating the arts:

"I teach biology for the sophomores and this year anatomy and physiology. It covers the makeup of the human body . . . how it works . . . that's one reason why we offer it because drawers, dancers, need or want to know about how the body functions, its muscle groups, so they can get the right form—the right movement. . . .

"Our dance teacher—she's always doing something that has a theme in science. A little production they're putting on now has to do with birds—an interpretive type of dance on movement—how birds interact. Another was about blood and circulation.

"The kids decide what they want to focus on as far as the theme and then they choreograph it. . . . They don't use my constraints on how the circulating system works

. . . . They use their dance to interpret what's happening. It's neat stuff to watch . . . modern dance."

I asked if he had art in his background.

"It's new. I've superficially touched on it, but it's new. No, I was asked to help develop the science program for this school. I was the first science teacher in the group of original teachers, so my job was to put together a comprehensive program that the students could go on to college with, and/or that we could integrate. All of the high schools have a certain kind of curriculum and I have to meet the districts requirements, too."

Collegiality and collaboration. "The way the school is set up—collegiality is important for us. I've been teaching over 25 years in mainstream comprehensive high schools and schools that are bigger than 1500 kids. . . . We find ourselves in those schools segregated into groups of teachers and except for the water-cooler, 'Hi how are you doing,' kind-of-thing, there's no opportunity to integrate.

"That's one of the things that really intrigued me—the possibility of being able to help design a school where there are other things that mesh with science in a great way—you look at anatomical illustrations—you look at the movement, like I mentioned before—you look at illustrations like Audubon and [R.] Troy Peterson did. Masterful works of art, and yet all very scientifically done—that's what they had to do before they had a camera.

"So when [the school's originator] posed that to me it was by chance. We were talking. . . . He was telling me what he was doing, and I said 'Oh great – good, have fun!' Then he started asking me questions about science and how would a scientist teach

science, because I had a great gig going—I'm teaching—a department head at a comprehensive high school—one of the good ones around—great lab kids—doing really well. And he kept asking me questions about how to do this, and how to do that, and said you might want to think about this . . . and I thought, and [then] *really* thought of what the opportunity was for me! So here I am, six years later.

"There are a lot of nuts and bolts that we have to take care of as teachers. We're staff-run. [The director (there is also a co-director who takes care of the business side)] doesn't tell us how to run the school. We're professionals. We trust each other and we know what we have to do. . . . As a group of teachers we work really hard—we have crazy ideas—we work them through. In integration, it's something that happens innately almost, now. We think about it, but we could use more time to do it. It'd be great to talk to different people and say, 'I have this idea about this . . . what do you think?'

"We know what's happening in other schools, and what we're doing. It doesn't compare at all with a comprehensive high school . . . it's a totally different atmosphere.

"I was a football coach, a track coach, mainstream—we have no sports programs [here], we have no typical high school stuff. I don't know if we can measure the effect, that we have on students, but we see the effect."

Rigorous academics. Teacher S-1 then shared an example of how he integrated art with his science classes.

"I'm using a lot of the fundamentals of art in some of the things I teach. In anatomy-physiology, when we're looking at the brain—how it processes stimuli—I look at art and track how that process goes through the visual cortex. Kids [then] evaluate art from the local art museum, or the local glass museum, and have several pieces that they

have to write up. They don't just write, 'Oh, it was good!'. . . they evaluate it, based on the principles and elements of design—all that stuff that the artists here teach. It's very insightful and usually ends up to be a two-page evaluation that you might see in any critic's magazine. They're seniors and they've been immersed in that . . . so it's nothing for them to do that.

"I give them the requirements . . . the essay part, as well as [needing to know] about pathways and parts of the brain."

He said that at one point he pulled a student piece from a school art display and had the class write about it, consequently sharing the results with the art teacher. I asked how he weighed the art part of an assignment with the science part.

"It's not just an art that they're going to show me, I have to see the content. They have to write a lot. Our kids write. They journal. They have comp books that are full. Right now they're doing a culminating research project in science, every sophomore has to do it, where they are writing a research paper on a controlled scientific investigation that they are conducting. All aspects have to be done. As well as, they can throw into their presentation some form of their art—it's just a piece of it. I don't give them points for their artwork, that's the passion that they have, that's something that they like to do. That's the hook that they're here for. I give them the points for the science content."

A hands-on learning experience. Later, to my delight, this non-arts science teacher shared a personal story about his own experience doing artwork.

"Two J-terms ago [a J term is a short, three-week course offering] I did something with what we call botanical illustration, I can't draw . . . but we had the art teacher and some illustrators helping—and I had a group of kids go through botanical illustration of

native plants with the local native plant society, and [the art teacher] with the lighting of her photographs . . . so we combined different things. . . . lit and illustrated native plants. [Now] the native plant society is putting together a native plant coloring-book, made by the kids' work, and people are submitting works . . . watercolor, contour line, value line, value pieces, and digital and b & w photography were all part of it. What I'm getting to is, I actually got to sit down and *do some drawing*. I have some pieces . . . they were twig studies. . . . I hadn't [personally] experienced art before. "

My interviews were conducted at a ping-pong table located at one end of a large open office. At least one of the walls had an antique brick façade—remnants of the school's former life as a warehouse. Activity was happening all around us, and this was a quiet corner. Since I had traveled to another city to see this school, the principal had arranged for back-to-back interviews. When the science teacher returned to his teaching duties, I was joined by a humanities teacher.

Teacher S-2: A Natural at Integrated Arts

Her department taught a combination of history, literature, English composition, and writing, through which flowed an examination of all of the cultural arts—dance, theatre, visual arts, and music. I asked teacher Teacher S-2 if she practiced an art form, herself:

"The only arts background I bring is as a participant in art appreciation. . . . When you teach literature, you need to be a historian. . . . When you are a historian, you really need to know the social and artistic history of a people. . . . It's all one tapestry that has a lot of different pieces woven through it—very much like arts integration. At [the former high school I taught in] the humanities department—it was very richly integrated with the

arts —I think not to any great degree in other subjects. . . . (The structure of the way in which we've done comprehensive high schools in the past is very limiting.)

"[Here] we try to collaborate as much as humanly possible. . . . and to make as many ties as possible, because learning happens in the greatest possible context—not the smallest. And so high schools really make a mistake in being overly specialized. I think the depth of learning comes in making those connections. They have for me, in my life, and so, to me that seems to make the most sense."

Trying arts integration in large comprehensive high schools. I asked her if she thought there might be some helpful bridge for conventional high schools to do more arts integration in subjects, such as math and science.

"The onus would be on the person whose trying to do the arts integration to understand the mathematics and the science and be able to make that bridge over to them. . . . I'm not always sure [the math/science teachers] will make it back in that direction because it wasn't the way they were trained. . . . It wasn't an objective in their *whole* schooling. They are often trained for industry and for further scientific study. Some are trained as educators—and clearly that happens, but . . . do you know what I mean . . . they aren't necessarily . . . that's not their focus. They may not value it. I think the way that happens is when the person who understands their discipline and understands art can help them make that connection. [So] . . . I think it could happen from the artist's direction [but] they would have to understand something of the other domain.

"If your principal was sold on the idea, if the principal is an instructional leader yes. Otherwise . . . whoever the instructional leaders are in that building, who could be a site-based team. I do think it is possible, but I think it is not likely unless there is a

critical mass of people who are interested . . . all the things that [are] a comprehensive high school . . . it's huge to move that boat.

I wondered what brought her to join the school's staff. She told me that her husband, a humanities teacher and musician, had been working with the founding artist and the group of people forming the school.

"They . . . were looking for someone who had a history degree and they said, 'Why don't you apply,' and I said . . . 'I'm not going to do that,' and then, the more I thought about it, the greater the idea came to me because—'When do you get an opportunity to start a school?'

A common thread I noticed throughout my interviews with teachers was a sense of intrigue and joy in collaborative endeavors. Next I asked if she could share an assignment in which she integrated the arts.

An assignment that brought out creativity. "I have one I just did recently, that I love. . . . It was (for the students who did the research) a phenomenal project—just an amazing project.

"The students have been studying western civilization and . . . I [had just] introduced Alexander the Great. I didn't teach them a lot, but I gave them an opportunity . . . because there is probably as much written about him as an historical figure, as almost any other historical figure around. . . . a lot of dramatic pieces—a lot of literature—a lot of paintings—just a huge body of interest in him over the years. So I asked them to create a magazine about Alexander the great, to go out and look at different kinds of print, not just online sources—which of course is very difficult to get kids to do these days. . . . They were to create a magazine using magazine format and to include graphics,

creative writing—any kind of adaptation you can think of where they could do letters to the editor, and they could make crossword puzzles for Alexander, and they could have a horoscope section. It was a fabulous format for high school students in the arts.

"I allowed them to collectively do it, if they wished. They had to include then, of course, a credits page, and they had to have more things. I required them to have a quality cover . . . so they could collaborate on that—[and they produced] some of the most amazing products I've seen for a very short time frame!—And I only gave them about a week to work, because it was just one man, and they did it on their own! I didn't give them class-time. You could, of course, do this more in depth in class, so I knew I would get a range . . . from them, but there was a lot of buzz centered around it among the kids. The kids truly enjoyed doing it. You could overdue it. If you did it for every unit, it would not be fun anymore.

The value of aesthetics. Next I asked about aesthetics—how important that concept was in teaching the humanities.

"Well I think the students learn a lot aesthetically. We talk about what makes a good life and what the real meaning of life is and we truly try to help our kids discover what that is for themselves. . . . I think the most important thing a student can know is who they are—it takes most of us fifty-some years to figure that out! But it's wonderful if someone helps us understand that along the way, and because that is part of our task, aesthetics plays a really huge part—understanding what beauty is in things—what that sense of awe is in subject matter—in a piece of literature—in an historical event. What its true significance could be is what makes learning interesting and important to kids, and gives it relevance to them. It helps them relate it to their own lives.

"I'm not the literature teacher on our team, two of our instructors are just phenomenal in terms of understanding and being able to talk about literature, and I can see it and use it. When I do, I point it out to kids. We revel in the awe of the moment, and I think that that is just as important in looking at history, sometimes it's hard to find . . . and it's certainly easy to see in the way people build families and lives and culture. So I think aesthetics for me, with kids, is helping develop that sense of awe of the unique beauty of so many different things."

Fulcrum High School

An authentic alternative learning community. "There are many ways of teaching" would be an appropriate slogan for the next school I visited. I will call it Fulcrum High, because it served as a critical balancing influence at a pivotal time in the lives and learning experiences of its students. This was the alternative school I described earlier—its mission was to reach students, who for various reasons had previously found conventional learning climates a *turn-off*. This school had been in existence for about thirty years and its curriculum could be described as flexible and experimental, aimed at supplying holistic learning needs to help students develop to their full potential.

The school's vision of itself was as "a democratically governed learning community. We strive to be creative, independent and critical thinkers who work collaboratively and demonstrate a high degree of individual and social responsibility" (School website, 2005).

Its location was in an older school building that included portables. What one could only classify as *truly elegant* graffiti, decorated sections of the outside of the main building. Inside, each classroom bore the stamp of the teachers individual interests. Here

and there hallway walls were organically decorated, with works of art or quotations directly on the walls. It reminded me of my former art school. No one seemed to mind spontaneous expression.

The importance of student voice. Student committees were responsible for almost every aspect of the school's governance including keeping an eye on wall content. The new principal, an individual with alternative school experience, was deliberately learning the school's culture from the kids after taking up the reins, following retirement of its former principal. As I arrived, she was helping students wash a car in the parking lot. A few minutes later she joined students as they convened their Respect and Responsibility Committee, one of the democratic committees that governed student behavior.

(The former principal had guided and molded the school's identity for many years, and one of the driving features of its cultural climate was democracy and student voice—equal representation among students, administration and faculty wherever possible—this included everything from a hiring committee and a budget committee with student members, to a disciplinary committee that included peer judges with equal votes on student infractions.)

Democracy–its importance in teaching and school government. Since democracy and choice are ingredients of alternative curriculums as well as good arts integration, the just-retired principal recommended I talk with Teacher F-1. She said he was a strong advocate for democratic curriculums and climates. Teacher F-1 was an ethno-botanist with a background in forest ecology, organic gardening, wildlife biology, and anthropology. He holds a masters degree in education. I commented on the unique democratic structure of the school and the increased role of student responsibility.

Teacher F-1: Flexibility and Community

Important values. "I always try to bring it back to what is your impact on the community. . . . I like flexibility. I don't really believe that the traditional model of education we're doing in most large high schools, or schools in general, works for many people. There are a few people who it probably works for really well, but I think good education is supporting students in learning *what it is that they want—to be successful in their lives.* At our school which is a very alternative school I think, we can be a resource for them to do that, and so instead of spending as much time coming up with cool curriculum to convince them to stay in the classroom everyday (we have to do some of that), we can spend more of our energy trying to be resourceful in helping them figure out *how* to do what they *want* to do—not *classes that they have to attend*—but *competencies* they have to fulfill."

Democratic means dynamic. I was curious what a democratic curriculum might look like.

"You can't really say what it looks like because it's democratic. It sort of originates from the community, so what it looks like is some sort of facilitation—not necessarily by the teacher—coming up with what the students want. . . . And how they're going to hold themselves to what they say they want—and what they're going to choose to do—and doing it. So it can look like anything really, it could look different for each student. If they choose to come together as a whole group it will probably look similar for the group—not necessarily identical."

I asked if he could give me an example of how he teaches.

"I do some direct instruction. Like the biology class, supposing there's an hour and a half block. We'll do anywhere between 15 minutes to a half hour of direct instruction followed by either the rest of the class, or several classes after that, of a more inquiry-based approach—more constructivist education. We'll provide them with some information they may not otherwise have. . . . And have them ask questions about it—'What does that bring up for you? What other questions might you have? Is there anything you'd like to learn further about that? Is there anything that sounded inaccurate or contrary to your beliefs or opinions?'. . . and try and elicit some questions. And with those questions we walk them through a process of studying those questions and that would be the inquiry-based part . . . a couple of weeks the problem would go on.

"In the horticulture program they have to put together landscape plans quite often—where they have to design a sustainable system and draw it out, or map it, out or sculpt it, or do a 3-D replica of what it would look like.

"I have an interest in integrating the arts. I don't express myself that way so much in general, but I like it when other people do—probably from just being here [at Fulcrum]. Also because I try not to get stuck on anything I don't need to get stuck on. Everything that can be flexible should be, and I usually think about 'What is the loosest way this can be done?' and I make sure I'm open to whatever way that is. And so if this doesn't have to be a paper typed out with 12-point font, then by all means 'do it anyway you want as long as it's clear.'"

True learning. I asked how he was assured they knew the material if they picked an art project to express it through.

"They may do a beautiful painting. . . . We ask them to explain it if it's not clear. We discuss it. If they were just going to draw an albatross, depending on what we were studying, they'd have to draw it in the context of its life cycle or draw it in the context of its habitat or its niche, or its evolutionary path . . . not just a picture of an albatross.

"It's the same thing if you give them an essay test and they write some crappy essay. They could just skate by that way too, and make you convinced that they thought about it, and you just check it off, since you know they always think about things. It's the same with any topic. If I give a test I let them develop the questions and give them an opportunity to go home with all of the questions and then come in."

Teacher F-2: Turning Kids around—and onto—Academics through Problem Solving and Creativity

The classroom of Teacher F-2 was located on an upper floor. The classroom had a high ceiling, large windows, and was equipped with well-used laboratory sinks.

When I arrived for my appointment, it was at the end of class and the teacher was engaged in a lively conversation with a student while the other students gathered up their things. As soon as possible, she cleared the room, locked the wood door, and our interview began.

The act of science. "When I started to teach here I realized that the kids are so tactile, so creative—that they had a really bad relationship to science up until this point and have had a pretty bad attitude about it. That's when I first got here. Now we have kids who are super-interested in science. We have the Science Geek Club and I think that's really about showing kids that science isn't about, 'Here's the Periodic Table and you have to memorize it. Here's a bunch of science sheets, just do them.' Because that's

not really what the act of science is! The act of science doesn't look anything like that, and so we do tons of inquiry projects where they do investigations, but I also started organizing physical science, which is their first level class, into science around different themes, and I usually teach an art-based physical science . . . I've done food and food chemistry, toys and physics, chemistry and physics, and I've done the art-based one a bunch. They all are the same competencies. I take some of the basic things you need to know about physics and chemistry and those are what I teach. Those are the content competencies."

I had noticed some odd looking structures on one side of the room near the sinks, and we walked over to look at them. She explained how these constructions (they looked like sculptures with moving parts) demonstrated the principles her students were learning.

Science as sculpture. "My students are studying mechanical advantage and simple machines and how they work. I start by showing them a video—a DVD—The Way Things Go, and it's actually created by two *artists* . . . and they set up this *huge* reaction. It's a sustained half-hour of a chain reaction of simple machines and levers and wheels and pulleys and chemical reactions that all set each other off. . . . [the] kids are enraptured by this, even though there's no dialogue, there's no music, there's nothing fancy about it. It's really just very simple machines knocking—one after the other.

"And then I assign them the task of creating a simple machine relay—that is going to do some sort of ridiculously simple thing which is called the Rube Goldberg device . . . he was a guy who designed these elaborate machines to make toast—or whatever . . . this is a product of their assignment, and when they present them they have to explain the mechanical advantage that each thing has, as well as what *are* the simple

machines doing—and what *aren't* simple machines. Like this one—it actually has a *complex* machine because it has this fan that gets turned on at the very end by the switch. . . . [Teacher F-2 walked to the next machine and picked up a part of it] *This* is actually at the bottom of this bucket of water at the beginning and then they pour water in, and that starts the whole machine, and as they pour water in, *this* becomes more buoyant—and it pulls *this* up . . . And at that point I said to the students: 'If you think that's interesting go look in the back of your toilets.'

"The back of a toilet is full of the simplest and most ingenious little pieces in my opinion—*like how simple is it?*—and it's *so amazing that it still works*!—and that's what all toilets *still look like* inside. And so, I sent them all home to look in their toilets. . . . But anyway this lifts this piece here, which then releases this lever . . . "

I asked about presentation.

"We have a ten-minute demonstration where the students present. It's very fluid and organic here [the school climate], and so there'll be one day where three present and the rest are working on their big interest projects and the next day another kid gets his actually working.

"We had one that was set up from the ceiling all the way down, [Teacher F-2 gestured towards a machine] like this, and at the end, it dropped balloons of paint onto a stencil . . . but it broke in the middle of the trial, and the girls who had set it up had spent the entire day—everything was working, but they had to get it all working *together*. . . . and it was five minutes after class and they still hadn't gotten it to work—and one of them dropped the balloon—and it shot blue paint all over her entire body. At that point she almost cried—but was able to laugh about it, too.

"And that's one of my favorite things about this process, not that they're not learning a lot about simple machines—which they do—but they're learning tons about the creative process, and what I think is the creative process in science—which is this tenacious ability to problem-solve. . . . When you're doing university graduate level scientific investigation, you're problem solving ninety-five percent of the time. You're collecting data that other five percent . . . O.K. ninety percent, and the other five percent they expect you to sleep, eat, drink, hydrate, teach undergraduates and do all that other stuff. . . .

"So this whole process—which I think is also what makes art interesting, and what makes really amazing artists—is an ability to persevere over simple frustrations—also, it's a kind of tangible material application of problem solving. . . . I think the way we divide up the curriculum, *problem solving* is something we think about as we teach in math. The problem solving we use in math in my mind is so abstract . . . it's much more like the problem solving we use in intellectual logical dialogue, and much less like the problem solving we use in life, or the problem solving we use to create. . . .

"And so, as these [machine assignments] evolve, there are points at which these kids say 'Oh . . . ! This doesn't work what shall I do?' And as a teacher my role is not to solve their problems . . . usually I ask questions like: 'It sounds [as if] you have a problem with this doing this, and so, have you tried that?—What about something like this?' Or, ' What do you think should be the next step?' Or, 'Is there something you can think of that isn't heavy, that might actually do this?' Or, 'Did you think . . .' That's the way I try to approach it, so that it becomes *their success* and there's always this *huge*

accomplishment feeling for them when they get it done, when they get the whole thing to work—even if it's silly! . . .

"They can do anything. And I even have let them include chemical reactions as long as they do it safely. And most of them have done chemistry with me, or a lot of them do chemistry first and then physics."

Science and music. Next Teacher F-2 talked about music and its relationship to physics.

"A lot of them are musicians. . . . I'll say [to the students] the thing you're describing sounds like what in physics we would call an octave, or in physics we would call timbre. The words usually mean very similar things . . . sound especially is very similar . . . what they learn then is—when they make a chord on the piano—what the sound waves, combined, actually look like. So for the first time ever these kids, who just adore music . . . are seeing—'Oh so this thing peaks and crests in the same place, but it's the double of that or the half of that. And so it goes up and down twice within this one thing. That's why these two sounds sound so well together because they have peaks. There are several times in the wave where they are exactly the same, but then they have this richness, because one of the notes is going through that cycle twice within the other ones. . . . Oh my gosh, I had no idea there was *physics* in playing my piano!'

"And then they have to create an interesting visual and auditory way to present it. Then their third part was to try to be as creative as possible [with] an instrument they already had or to create a whole new instrument they'd never seen before, using now what they've learned about sound. This would be their sound competency, demonstrated."

Teacher F-2 and I chatted some more about physics and she invited me to attend the Geek Science Fair (that observation is included in Appendix B—*The Geek Science Fair;* also, in Appendix C, a sample physics assignment is included).

Teacher F-3: A Natural Approach for Making Language, History, and Social Studies Relevant

The next teacher I spoke with, Teacher F-3, taught world languages, history, and theatre arts. Her classroom had the look of a comfortable living room with several large well-used couches arranged around a central space for easy conversation. A profusion of artistic creations were scattered around the room or hanging on the walls—and she was in the process of gearing up to produce the school's play. I mentioned how organic and interactive the whole school seemed.

"I think [Fulcrum] is unique, or at least it was. It's a sense of community that's really important. . . . it's student voice. . . . students play an active part in decision making and there's respect that we really want their art—their works—to be a part of the school—their imagistic selves, as well as their intellectual selves."

As an aside: After observing several student-run committees, I mentioned to a student that Fulcrum High reminded me a lot of my alma mater art school. Her response was that, "To her, [Fulcrum High] felt like a school full of artists with no art classes." Even though Fulcrum's main mission was not about arts integration, it seemed—in my exposure to the school, so far—that it was. So I asked Teacher F-3 about it.

She didn't think of it as arts integration. "I just sort of naturally do it because it's more interesting to teach with something where students are creatively involved in taking the subject and adding their own special spin on it. It seems [lately] like teachers are

getting trained in a much more sophisticated and more creative way than in the past. I think young teachers are encouraged to look at different modalities of intelligence . . . it depends on which school you're going to, but it seems like the information and the research is out there, if you're at all savvy. What we might have done blindly in alternative education is just being validated by the research.

"[As far as art,] I'm very interested in surrealism myself I love that movement . . . it's a lot of fun to explore in terms of psychology and how that integrates into language and visual selves . . . I used to think film was the ultimate medium, but I don't think that's true anymore. . . . I really think that every piece of art has its power, and you just have to tap into that."

I asked her if the faculty had regular meetings to coordinate what I referred to as *integrating the arts*. She said no—she thought of it [the way she taught] as making history come alive, and hadn't thought of it as integrating the arts.

"It's a Scottish method of using theatre as a way to explore history and social reform. It's a certain kind of storytelling . . . I just do things. I get ideas. I have a book called History in the Present Tense. I never was trained in it, I did it by instinct, and [enjoyed] just growing and growing! That's what I love about [Fulcrum High]."

Inhabiting history. She shared some examples of how she used drama with history to enrich student learning:

"I've created what I call 'inhabiting history'—where you use history as an issue or topic, and we might use drama as a way to explore it. For instance, we did one, looking at the Japanese-American experience during their processes of becoming immigrants and then being interned—and then redress. We did a whole series where kids

did masks, did journals, and then created characters that responded to the events that happened. They were given a suitcase and told, 'You can only fit that much into it,' and that was all they could take [with them] into interment. Or we gave them a little space—this was the space they were in [she demonstrated the small space with her body]. . . .

"We created scripts that used the different things we explored in class and then put on a production. . . .We started it with Tyco drumming to call people in. . . .We had people from the Japanese-American community who were interned. . . . [who] read their views for actual performances.

"We enacted one of the Supreme Court cases—Hirabayashi vs. the U.S.—challenging the curfew code. The students got to play judge, or defense attorney or the prosecuting attorney, or one of the defendants. And then they read the novel by Jon Okada called No-No Boy, a sad story of the author's life. (I think it's one of the better pieces that came out of the Japanese-American literary exploration of that experience.)

"[A Japanese filmmaker] did a film of an older relative who committed suicide over the shame of that experience. She came in and talked about that process and showed us the film.

"I try to bring in community people as much as possible—to make history seem very real—to have people talk about their experience.

"I've [also] had people come in, like Mrs.O---------- who's a master Ikebana flower arranger. She facilitates so the students not only learn about 'What is Zen,' but they have an experience of trying to create that in a medium such as flower arranging—what are the principles . . . and seeing the aesthetic that comes from that."

At one point during our conversation, teacher F-3 referred to a Model U.N. class she taught. I asked further about it.

"In the past we've done Russia; we've done Cuba; we've represented Syria, Lebanon, and South Africa, and Ireland, and Sweden. . . . For each of those countries you have to become acquainted with the cultures and issues.

"The University of ---------- orchestrates the mock U.N. experience and has various committees from the U.N. that are created and run by the U of ---------- students . . . they give the topics for each of those committees and then the students are assigned a country and have two topics they are supposed to research in depth . . . to develop from that country's point of view—what they see as the problem—what that country's position is in relationship to that problem—to that committee, and then a possible resolution. They submit that and then they go to the actual conference, which is two days in the Spring. Then they interact and learn negotiation, caucusing, [and] they learn how to write proposals; how to make alliances; and whom they should make them with. So in essence it's taking on a role, like an acting role of becoming a person from that culture, having to act as if they are that person."

Inhabiting a culture, a language. From her perspective as a world language teacher, she mused that learning a country's language could be regarded in much the same way.

"I actually started with bilingual plays, because I started as a French teacher. In order for people to really become speakers of the language you have to have an emotional connection to what you're saying. And so I think becoming another identity, which is in a sense becoming an actor—it's a part of becoming a language learner. Because in a

sense you have to start to learn another culture, another way of thinking, another way of being, another way of responding in understanding another language. So in a sense, I think another part of you comes out. And a large part of language is that emotional context that is *affective*—that makes it successful or makes people want to continue learning."

Truth tables and propaganda. Next she gave me an illustration of a more *cognitive* approach to language learning that she used involving integrating math logic, visual arts, and media studies.

"I started with math in French . . . and instead of just doing the metric system [the school's principal] had shown me how to do truth tables. So after we learned how to make certain logic statements, we learned what the principles were . . . how they [could be] applied in magazine advertisements—'if you wear Addidas then you're sexy, and this person is wearing Addidas, therefore this person is sexy.' So I would have them look at the ads in magazines and figure out what kind of statement that ad was making. Then they [created] their own visual ad and [made] the statements that went with it . . . how they were tapping into certain parts of you by using imagery and how it affected you as a consumer, as a person. . . . That was math [integrated in language instruction], but you could also say they learned something about [visual] imagery and about what becomes effective in terms of social manipulation and control . . . it's also about culture . . . [we looked at, 'Are there differences in French and American things to appeal to the consumer?' And 'What kinds of things are more appealing to French people—or to Russian people?' . . . then looking at propaganda . . . I try and get material that will hook into people's interests."

(Teacher F-3 invited me to come back for *Race Day* to see a demonstration of drama used with social issues. I've included a write-up of that observation, in Appendix B—*Liberation Theatre*.

With the permission of a Fulcrum social studies teacher I didn't interview, but whose class I visited, I've also included a pilot observation in which students used puppetry to tell the story of The Chicago Seven trial, see Appendix B—*The Chicago Seven Puppet Show*).

Consultant-3: The Strategic Thinking behind Arts Integration— Reflections from an Expert in Educational Reform

Next I visited Consultant-3. Consultant-3 held a Ph.D. in education, and had a background in general curriculum studies, aesthetics, the arts, teaching gifted children, and school maturation. She was a member of an educational reform think-tank, and a former school administrator and university professor.

Over coffee, we talked about tests and how tests based on convergent thinking (one right answer) cannot measure divergent thinking (which allows for many possible answers).

No single measures. "One of the things—and this is an ongoing problem that we fall into—there are very very few things in this world for which there are single measures. I don't know a lot about blood tests, but I imagine a blood test can tell you if someone's white cells are elevated or not. That's a single measure. But when you're talking about something as complex as learning, what in the world would make people think that there is a single measure, or one way to measure what's going on in somebody's brain? . . .

"The issue for me is that there are a lot of things kids need to know that we can't test. They need to know how to negotiate the world and they need to know how to function in society, and you can't test for that, and it seems to me that's also a very large part of a school's responsibility. Well you see . . . part of that I think comes through the arts and aesthetics."

A mother's influence. I mentioned to Consultant-3, that in growing up, my mother had engrained in us that there was always another way to do something—always another way. I said I later found that attitude to be a basic ingredient of the arts and creativity.

"One of the things that's really difficult, is—yep, you got that from home—I got that from home. . . . The issue becomes for me . . . when we have unfortunately, larger and larger number of kids who are coming from home situations where they're *not* getting that. If the schools aren't teaching that, then these kids *aren't going to get it*."

I said I'd noticed how alternative schools were so dedicated in their efforts to reach learners through multiple approaches. Consultant-3 commented:

"And they're really trying, and that's also one of the reasons the alternative schools have so much trouble. Because the world is out there saying, 'Yeah but can these kids *XYZ* when they get out of there?' Well some of them can and some of them can't, but you know what? The public schools down the road—some of them *can* and some of them *can't* too, and just as these kids are getting to it differently, doesn't mean they aren't getting there.

"We all get to what we get to differently. You said you looked into some of the divergent stuff. There are lots of ways to get where we need to get to. And one of the

problems with systems of any kind—and schools by nature have to be systems—is that they're not good at alternate ways, because it doesn't fit in systems. And anyone who thinks that schools are any different than that are kidding themselves. . . . Education does extraordinarily poor with any kind of nuance. It's just not good at it."

Next we talked about equity issues and how they impact learning. Consultant-3 offered this:

"It's a serious problem. There are so many components to it and I think one of the things that one really has to keep in mind is that you're not dealing with parents who necessarily are unwilling; you're just dealing with parents who don't know. Who are in different systems where there are language barriers. You're dealing with class issues, you're dealing with economic issues—certainly a big piece. It's very hard to say what the most of all is. They say that a mother's attitude toward education and a mother's level of education is the greatest predictor of a child's successful school experience, whatever that means, and I'm not sure *what* that means. Yeah, it's a serious problem."

An educated person. I commented that it seemed arts integration was an obvious way to go.

Consultant-3 commented, "It's a part of it, but it's not all of it—but it's a recognition that we human beings operate in both cognitive and affective ways—that they merge and mesh in different proportions at different times depending on what we're doing. But if you solely concentrate on one at the expense of the other you're not going to get an educated person. . . .

"Now, one of the things that also has to be kept in mind is our notion (except our romantic notion) of what an educated person is has changed radically over time, in that at

this point in this country we're looking at 'Can you get a job? What kind of a job can you get? What kind of money can you make?' as a sign of *educated*—and it's not—it's one part of it because obviously one has to survive.

"I used to say to my grad students, 'I want you to close your eyes and I want you to think of one thing without which you could not say a person was educated, now it may be knowing the nines' times table. It might be having a passing acquaintance with Plato. I don't know what it is, but every one of us has something embedded in us—that if people don't know *this*, they're not educated in our *feeling* about *educated*. . . and it's fascinating what people come up with. 'Yeah I know we're in a real practical period of time, but a kid's got to *know* who Shakespeare is, what a sonnet is, otherwise I can't consider that an educated person. A kid's got to *know* some history, and have a sense of where we came from!'

"Now obviously a kid's got to be able to formulate a sentence and write a paragraph and add a column of numbers—but that's not all there is. . . .

"Go back to Eisner, the Educational Imagination—you should read that—I think you would really enjoy that. One of the things he talks about in there are the different theories of learning and the different ways that we learn . . . what could gracefully be called the *use it or lose it school*, which is: 'The mind is a muscle and you just have to exercise it and exercise it.' And then there's *academic rationalism*, which brings in the classics and says, 'There are some things that are worth more than other things—and because they are of greater value, schools should be teaching those. For instance, literature is of greater value than driver's ed.'—or whatever. And then there's social reconstruction."

Analysis of thought processes in creativity and the arts. We began to talk about the more analytical aspect of arts integration as a learning tool. I asked about the concept of transfer.

"I think that some of the things that we know the arts do for learners—for people who know those things . . . they can say—'Obviously *this* transfers.' Clearly the arts, after a very *very* elementary level, (and I'm going to go back to Bloom now) really operate at the *higher* levels of learning taxonomies. It's *application*, *evaluation*, *analysis*, (obviously that's not in order either)—it's the higher levels of the taxonomy. Well *that* transfers. You don't just do that in one area and not in another."

I mentioned to Consultant-3, that through this research I had discovered educational terminology with which I could better describe my own concept of creativity. I also said I had tended to think of critical thinking as part of creativity. To that Consultant-3 responded:

"Except that . . . except that, there can be *creative* critical thinking and *critical* creative thinking, (ideally). We have a tendency to set categories up for convenience—for ways to talk about [things], but if you stop to think about it, the most productive critical thinking has a huge *creative* component to it, and the most productive creative thinking has a huge component of *critical thought* to it . . . separating them except in terms of understanding them I don't think is useful because for either one of them to work powerfully they have to be combined. We happen to live in a world where we tend to atomize stuff into little tiny bits and that's how we talk about things, but . . . as an artist, you *know* the amount of *thought* that goes into creating a piece of art and that's

whether you're talking about the visual arts, the plastic arts, dance—it's not just knowing *the steps*."

We talked about the importance of striking a balance of domain skill (rational knowledge) with emotive expression.

Consultant-3: "My example—someone literally or figuratively had to teach Gauguin . . . Cezanne . . . the color wheel. They had to know something before they could start fooling around with it. You've got to have *some* knowledge base (domain), with which to play around."

Many views on aesthetics. I asked Consultant-3 how she would define the word aesthetic.

"Well I would define aesthetic a couple of ways. Aesthetic or aesthetics obviously is the appreciation of beauty—whatever that is. But that's a more dictionary kind of . . . I think that my working definition has to do with appreciation through the senses—through, and of—the senses. And *an idea* or *series of ideas* of how that applies to what's around us—how that applies to the sciences—I don't isolate aesthetics just to the arts. I think there [are] aesthetics in everything. . . . A scientist can look under a microscope and see the aesthetic principles in a slide of bacteria, or in a butterfly wing. There's beauty in all sorts of things, not just the arts. A mathematician . . . will look at a formula and use aesthetic terms—it's elegant, it's balanced, it's beautiful—it's everywhere."

I mentioned the concept of band-aid solutions—like chewing gum—that may not be pretty, but yet they get the job done beautifully when needed.

Consultant-3 responded with, “Elegance and chewing gum—both can be beautiful on a sliding scale.”

That thought echoed a favorite quote of mine from Buckminster Fuller’s book Operating Manual for Spaceship Earth (1978):

“If you are in a shipwreck and all the boats are gone, a piano top buoyant enough to keep you afloat that comes along makes a fortuitous life preserver. But this is not to say that the best way to design a life preserver is in the form of a piano top. I think that we are clinging to a great many piano tops in accepting yesterday's fortuitous contrivings as constituting the only means for solving a given problem.”

Resistance to curriculum reform in public schools. Then our conversation again turned toward the difficulties in changing a traditional public school’s curriculum to be more arts-integrated—I mused how alternative schools and arts magnet schools seem to do it so well.

Consultant-3 believed that, “To get something embedded in the existing majority system—which would be the standard traditional public schools is a very different thing than getting it embedded in an alternative school.

“Departmentalization can make it very difficult. There are schools that do . . . humanities blocks, or social sciences blocks . . . math/sciences blocks—and it’s easier and can be done in those situations.

“One of the things that’s really sad to me, is that it’s not that we don’t know how to do this stuff, or that we *newly* know how to do this stuff, it’s a matter of *will*—and people are *choosing not to* and have chosen for years *not to*—for all sorts of reasons. You go back to a notion that is unfortunately still prevalent, that the arts and anything to

do with the arts. . . . are froofy, snooty things and they don't matter—well I don't think that's true. The arts are enriching for anybody. All you have to do is look at what people variously refer to as underserved populations—whatever you want to call them—and look at the way kids react to music. Look at the way kids react to graffiti on walls. Those are the arts, folks!"

I mentioned I had been involved in some community fundraising for art in a city park. How, as the art chairman, with a professional art background I had had to democratically make peace with the idea of many different thoughts on which art form would be appropriate. In the end the community settled for a happy balance of a photo along with children's art. The exuberance of young artists wanting to express themselves also needed to be balanced with the discipline of maintenance concerns and community taste.

This elicited a chuckle from Consultant-3.

"Now we have the difference between *folk* and *fine* art—which is a whole *other* discussion! (Those are nightmare conversations as far as I'm concerned!) What happens is that people end up really polarized and so that groups that are promoting or advocating things in the arts end up as polarized as people who are talking about the arts and cognition on different poles, and they don't bring it together in the middle, either.

"The other thing is that there is a serious—to my mind—racist, classicist, overlay to saying only the upper classes can really understand art or appreciate art—this is why I wouldn't define aesthetic—you just can't. We all operate from our own backgrounds—frameworks. You've got to bring it together."

Consultant-3 had evolved a nascent theory about learning eras. It concerned *product* (which emphasized formula and rote memorization) vs. *process* (which emphasized understanding the underlying principles of a discipline)

"Our school systems go through all sorts of things. One of the swings that happens in the education of kids is that sometimes we're in a big-time *process era* and sometimes we're in a big-time *product era*, well right now the emphasis is on *product*—it's test scores, it's 'Show me, show me, show me,' and at other times the emphasis is on *process*, we're not so much concerned with kids knowing *'x,'* as the *how to(s)*. 'How do you get to the facts.' 'How do you reason an argument?'—those kinds of things.

"One of the things we don't do very successfully in education is blend the process and the product so that you end up with one generation of kids—and this is overstating it—with all this knowledge about how to do stuff, but don't have any facts because *product* wasn't the issue—so what do they do with all this *process*.

"On the other hand you have generations of kids with all this data and they have absolutely no idea how to use it. Now if we would have the sense to put it all together and merge process with product—which doesn't happen often enough—then I feel we would have more truly educated kids—and adults.

"Now the really interesting part (and no one will tell you this), is that typically it is *generational*, so what we end up with this generation of teachers who went to school on one premise, teaching a group of kids who are going to school on the other. So that if . . . let's say you went to school in a big-time *process* period—chances are by the time you are teaching it will have started to swing back—but in a generation that wants *product*. You were taught *process*, *process*, *process*.

"This is *theory* on my part—I cannot back this up, but my sense has always been, if you look at plain old history, there's some backup for it. As we become nationally more frightened we go more towards *product*. . . . whereas those eras where there's not as much fear—and where the economy is better, and people are more comfortable . . . we tend to move more to *process*. I cannot back that up with data, but I sure can back it up with experience and reading—because *it's just there*!"

Consultant-4: A Musician and Professor's Views on Curriculum—the Hows and Whys of Arts Integration

Consultant-4 was in his last quarter of Ph.D. candidacy in Curriculum and Instruction. He taught arts integration at a major university. Like Consultant-1, he had also participated in recent history of the arts integration movement—but in the Mid-West. He was a musician who played cello and Mandolin—and had a background in voice and the performing arts.

And like Consultant-1 and Consultant-3, he had analyzed the underlying elements in arts integration that made it valuable as a learning tool. In his interview he shared some specific instructional techniques.

A contributor to furthering the development and practice of arts integration. As we talked, Consultant-4 recounted his experience and traced some of the history of the movement.

"I've been teaching in the arts for about 10 or 15 years now. . . . I was an arts specialist at an arts-based high school in Minnesota, the ----------Center for Arts and Education. I taught a couple of classes there and then ran summer interdisciplinary arts camps for kindergarten through eighth graders for a number of years, and then pursued

drama education in a graduate degree, and got my teaching license eventually. Then I [taught] in public schools as an elementary teacher.

"Minnesota integrated the arts and had stand-alone arts. I was mostly working in discipline-based arts like music and theatre. . . . There were a number of projects like the *Dance Educators Initiative* and the *Theatre Educators Initiative*, etc.—that sent teams of arts educators out to work with generalist teachers on ways to integrate to the curriculum through the arts.

"I think my background (theoretical base)—comes from people like Maxine Greene—and Elliott Eisner. She's written a lot of articles on arts and arts education from a philosophical point of view—general, more thought-pieces that relate to education as a whole. But Eisner's work about differentiating instruction and teaching to the wide variety of students that are present in school was a very appealing idea to me.

"Also there's a whole British-based system of drama in education that I was drawn to early on in my graduate school career . . . people like Dorthy Heathcote and Gavin Bolton—particularly drama in the general curriculum. It started in England, in association with one of the universities there. And also a woman named Cecily O'Neill, who wound up working at Ohio State here in the U.S. There was a whole lineage. She was a student of Dorthy Heathcote and then an advisor of mine. Brian Edmiston who's now at Ohio State was a student of Cecily O'Neill and I was a student of his. Heathcote's work goes back to the 60s.

"I think you can find strands of integrating the arts in education that go a long ways back, but calling it its own discipline and putting it into a bit of a niche might be more recent. I would say probably longer than five years ago, knowing that ten years ago

I was looking at some of this drama-in-education integration stuff, and I was teaching a course on integrating drama into the elementary curriculum at the University of ----------. So we were doing that kind of work. . . . There's been a healthy tension between discipline arts-based education [stand alone arts] and integrative arts education."

An insightful comment on zealous advocacy that pushes integrating the arts.

"One thing I'm a little shy of (and actually Eisner has written about)—there's been a lot of advocacy as to the arts being able to improve math scores—or the arts being able to do 'this one thing' really well. And his point in one of the articles he wrote is that evidence for that is really not that strong.

"I think his bottom-line point is 'While they may help [. . .because again there are other ways to dynamically learn], we should do them because they are valuable. They have inherent *value*. They have worth and value because it's art and it's art-making, so we shouldn't short-sell the arts in the service of another discipline. Because right now math, science, and literacy are the big three in the public discourse about education, and his point is 'we shouldn't do everything else we do in education to serve those three'—because we need a society in which people can think artfully about the challenges that face us, and so that we can raise engaged citizens in their culture, and his point is that the arts are one of the *primary* vehicles to do that."

Drama and inquiry used to teach history through historical artifacts.

"Drama is a natural fit. . . . The way that I teach the arts in education is via structures that teachers can use with other types of content but the way that I model it is through something very specific. "For instance, I first give them *discovery boxes*. . . . There's a primary source inside and one is a battle flag from a regiment in the civil war; a

photograph of illustrations or sketches that were done by somebody (but you don't know who); some journal entries—in each box there would be something different; and their job, in small groups, is to determine what the source might be, and what story it might tell . . . the point of it is to get at the fact—that a primary source tells some of the fact, but not all."

I asked Consultant-4 what a primary source was.

"A primary source versus a secondary source in social studies would be something like a journal, a letter, a photograph, an artifact piece of clothing, something that actually comes from that time period, rather than a secondary source, which would be like your social studies textbook, which is telling you about these sources—but they're second hand. They've been edited. They've been packaged. They've been reinterpreted and given to you.

"We kind of jig-saw what we know about these sources together, and I let them know (after we do some inquiry-based investigation) that all these relate to a civil war journal that a chaplain named Elijah Edwards created. And he was in the Minnesota Seventh Regiment, and his job was to drag dead bodies off the battlefield—so it was a very dramatic thing. . . . He was also a visual artist, and there were a lot of sketches that were inside of his journal. (I used to work at the Minnesota Historical society, so it was helpful to have that kind of source material.)

"After the students do this discovery exercise and hear a little bit about Elijah's story . . . we take passages from his journal and I ask them to create. . . . three dramatic frozen frame images using their bodies, and reading the passages, and enacting them through drama that bring this primary source to life. . . . There are four or five different

passages and I ask them in somewhat chronological order because they lead to a battle and the aftermath of a battle. . . . A group might say, 'Well . . . this photograph is of a flag and there are different words on it like Tupelo, and Tallahatchie and other names are written on the flag and we also noticed that the stars on the flag aren't in a sequenced pattern, so it tells us that this is before flags used stars in a uniform way, so it's probably sometime in the *1800s*.'

"And then they let the group know questions that they still have about the artifact. Then it goes to the next group and they say, 'In our journal it says Tupelo. . . . so Tupelo relates to what's on your flag (—that's interesting) so this is the battle of Tupelo,' then the group says 'Oh, that was a battle flag.' So each source adds on to the other and you get this more rounded vision of what all of these sources add up to.

"The way I approach history with kids is . . . *historians as detectives*. There's a dramatic pedagogy to that. There's a reason why I make it a surprise . . . why I hold back certain kinds of information . . . it lends a sense of performance to more inquiry-based activities but then, when that particular activity transitions to the more drama-based activity, then they're using real drama tools, they're using their voices, they're using their bodies, they're playing with tableaus, which are frozen-frame images that are portrayed in the journal entry.

"They may be playing with sound and musical instruments. (I've had students doing revelry drums as they read the passages). . . . I give them suggestions: 'In your groups you might want to come up with a musical accompaniment to it,' and we talk about that and ways to tell the story so it's understood by an audience.

"I play a lot with *time limits* . . . because time limits force choices, and the thing about art making is that choice-making is so important. There are few wrong choices, but you have to *make* choices . . . because you're always developing your skill set."

I asked Consultant-4 how he approached critiques and evaluations:

Lerman's Process. "There's a critical process developed by a dancer named Liz Lerman. It's a five-step process where you first give the group positive affirmation of what you saw, then for the next step the group who presented gets to ask questions of the group who saw it. 'When we did choice, did you understand?'. . . They get to ask those kinds of questions. The third step is the group who saw the performance gets to ask questions of the group who performed. And the fourth step is any additional critical feedback. . . . I have the group who's presented, taking notes on the feedback that they're getting by their peers.

"I'm free to toss in my own feedback, too, but I let it sort of sit there as a way to promote, 'we're all responsible for our own learning,' rather than just me being the teacher and being the one to sum it all up, but I will in future instruction [later as a further step]—I might say: 'Remember when we talked about the need to work more on our voices? . . . Well today let's spend a little time doing that and here's some voice exercises we might do.' So I'm picking up on the kinds of feedback and things that I'm seeing."

An elementary school example of teaching cloud terminology with dance. "I've worked with movement as ways to solidify new terminology in students' minds. this could happen at the beginning or the end of a science unit. . . . We know that we have stratus clouds and cumulonimbus clouds and cumulus clouds and all sorts of different kinds of clouds. They have different syllables attached to them and so for example,

cumulus has three syllables, and with the water cycle, or with any science terminology, we might list those different-syllabled words on a graph, and then students would come up with a movement to go along with it.

"We know that cumulonimbus clouds are big and puffy, so they might say: 'Cum-u-lo-nimbus!' [in a loud voice] . . . and along with it a movement motif . . . I might say to students, 'Okay, we're going to put together a dance using these various multi-syllabled words . . . and these various terminologies relating to the science concept. And how many times should we approach the term cumulonimbus?' and they might say 'Three times.' And then we might do stratus clouds . . . stratus clouds are high and wispy, and that might be 'strayyyytus' [said in a wispy voice] and they'll do that several times—and what results from it is a dance piece. . . . We might work with *levels* (which is dance-specific terminology)—high, middle, and low—outer-kinesphere, middle-kinesphere and inner-kinesphere . . . and then perform the dance piece, and then what's happening cognitively is that the students are really remembering this new scientific terminology because it's been incorporated into their kinesthetic—and something that's aesthetic as well. It's actually enjoyable to watch. . . . Mathematics—I can talk about examples, too."

An example of teaching fractions with music. "Music and math are highly related. One thing that I do is—I have cards, and they've got the different notes written on them. So, this card would be a whole-note card. I've also got a card that's split in half . . . a half-note and a half-note. And I've got a same-size card that's divided into quarters, and I've got a quarter-note, quarter-note, quarter-note, quarter-note. And I've got eighth notes, and I've got multiple versions of this. What I'll have students do after I introduce these is: 'This card will ask for four counts—this is the whole note.' So I'd go: 'one, two

three, four.' 'And you've got two half-note cards.' So it'd be: 'one, two—three, four,' and quarter-note cards, etc. They can put them in a line—mix them up—so, you can put your quarters here, your half-notes there, and your whole-note over here, and you then might start with just: *Laaaa; laaa, laaa; laa, laa, laa, laa; la-la-la-la-la-la-la-la.*'

"You'll start with a level of questioning: 'You've got a whole-note, how many of these fits onto this whole-note card,' and it will be the quarter-note I'll hold up, so that's one-quarter of the whole-note card. After we do the *la-las* . . . . we'll add in songs that they create—about things like their love of pizza, or animal riddles: *'I - am an - - a - n - i - mal with stripes. I - live - in - A -fri- ca.'* They've got [the cards with fractional notes] spread out—they've got the poem written on top of it—and they're starting to play with these structures. It's that kind of thing where it's becoming very tactile—the notion of fractions and fraction equivalencies, but it's playing out in terms of music.

"Basically, with music, you're using time and you're spacing out time—with symbols that are symbols for the ways to use the time . . . just as numbers are symbols for ways to divide and represent things, too. . . . [Also] the nice thing about music is that the absence of sound are the rests in music, but they still are worth counts—a quarter-rest or a half-rest or a whole-rest, so all of these things really lend themselves to numbers sense and numbers thinking."

Themes at the secondary level. "At secondary level I've heard of several models—choosing either the Renaissance, or particular periods of time—or something like the ocean, a more scientific-based thing that would start with more science-based concepts, but would move into dance and other forms of representation.

"As Eisner would say, 'multiple forms of representation of the ideas' that are explored over the course of a year . . . I like to go breadth, then depth, then breadth—that's my model—the big-wide funnel, the narrow funnel, and back to the wide funnel. So it's that kind of recursive model that I think of in my own teaching. Ideas kind of spiral—'Remember when we approached this a few months ago, well we're going to do it again, but we're going to do it more deeply now than we did before, because you're a lot better at it now!'—it's that notion, that you're building skills and then the skills are being applied in new contexts."

Back-mapping—how to plan arts-integrated lessons with standards in mind. Consultant-4 and I talked about standards in traditional academics, as well as discipline-based standards in the arts, and how to incorporate both in lesson plans.

"You back-map from what you know students *need* to know. . . . science for example, or mathematics with the national council of teachers mathematics standards and other standards, documents and frameworks . . . they do list very explicitly what students should be able to know and do in each of those areas—you have to use those as your anchor.

"You ask questions such as: 'Okay they need to get there, so what are going to be the mechanisms for me to be able to do that? What are going to be my choices as an educator that not only get them there—but get them there in a way that's going to be dynamic, engaging, and promote true understanding.' And I think a lot of the time, the choices . . . can intersect with arts-based teaching, because they are dynamic and engaging structures, and generally produce a high degree of student engagement. If they're approached safely in a constructivist way and in a way that's nicely scaffolded—

so you don't just toss students out and say, 'Make me a painting (that's going to freak any student out),' or 'I want you to put on a play in ten minutes.' You *can't* do that!—and that's what teachers sometimes do."

Content discipline and the presentation discipline are both needed. "I used to run Minnesota History Day . . . students did all the research that was required of good history research. They went to the primary sources, they went to the libraries, they pulled up artifacts and documents, and did oral histories, and all the things that a historian needs to do. But the way that they presented what they learned then started to reference more arts-based teaching.

"Some of them chose first person accounts, so they became a character in role and told their story—like Harriet Bishop, Minnesota's very first schoolteacher. Some of them chose very aesthetic dioramas or displays that they would create (that was another choice that they could do). Another would be to do some sort of electronic-based or power point presentation that would have audience, performance-oriented qualities to it.

"So you're making those more *performance-based* approaches, and their teachers needed to spend time with them on ways to refine them and make them more—and their colleagues, too—to make them better . . . focusing on the *performance qualities* whether it's a visual performance or a dramatic performance. So when it's more content heavy like that, you've gotta pay your dues, you've gotta wade into the discipline, because history discipline is just as disciplined as drama discipline, and you've gotta do both. But it's just in *the way that you show what you kno*w that oftentimes engages your audience more—'Who wants to read another research paper on *x*?' 'Why not do it as a first person

account or as an engaging visual display?' 'Or as an integrative back-and-forth sort of power point presentation—or whatever your thing happens to be?"'

Looking at cognitive thinking. I asked Consultant-4 what cognitive elements he thought of as part of the arts.

"Adaptability, I think, is a good one because . . . it's the palette metaphor—'You have the palette of color in front of you and you have the ability to mix red with green because that's what you need.'

"You're getting a broader palette of pedagogical strategies by utilizing the arts disciplines and getting to know them better. Every discipline—anything you learn—I think lends more to your teaching. That's sort of the bottom line. But because the arts are performance and engagement oriented, they're asking things of their audiences that are particularly suited to that kind of thinking.

"I'd equate the arts with creativity, but they're sort of a codified and disciplined-based way of doing it. I would equate any discipline—when you're absorbed in it and learning the skills, and learning to adapt the skills to transfer them to new contexts—that's creative. But the arts are their own way of doing it, and the nice thing about the arts is that they involve an audience, so they really lend themselves to what we want to do in education. It's community, and it's showing what we know to a group that hasn't seen it before, in a way that they will understand. And that's what the arts do particularly well.

"It's asking . . . the specific question of somebody who's unfamiliar with the arts—'What does creativity mean within your discipline?' A historian is going to answer that in a certain way. They're going to say things like: 'Creativity, to me, means my

ability to go to the research library with a really good question, and being able to piece together aspects of that, so that at the end of it I can tell a multi-facetted story that even has some contradictions and conflicts with it.' (That's what good historians do. They don't just tell one story, they tell multiple stories—that even have some dissonance between them.) That's a very creative thing—to be able to piece that together as a history detective.

"And there are parallels to that activity in the arts, for example a choreographer who is putting together a dance piece and watching his company experiment with their movements—and then saying, 'Okay, stop! Let's *unpack* what we just saw. What did we see that's going to work. I'd like you to take this move, but I'd like you to do it in this way, and I'd like you to think about holding this for eight extra counts, and daa-daa-daa-daa-daa.' They're doing the same thing that the historian's doing in my view. . . .

"For a non-secularist, I'd call it almost godlike behavior—you're creating something that *wasn't there before*. And that to me is what art-making does and what anything does when you're being creative. Out of this ether, and out of this stuff that happened before, and out of all of the good people's work you are standing on, whether that's another historian, or whether that's another dancer—or whatever—you're building something *new* and *you're acknowledging the fact that you're part of the lineage—[that] nothing's ever new*, but you're doing something in a *different way* than has been done before."

Looking at affective thinking and feeling. "For me, Mihaly Csikszentmihalyi, talks about the notion of *flow* and I think of that in terms of affective. It's that moment in time when I'm listening to a Bach mass or absorbed in some kind of visual or I'm

involved in a mask-making activity, or where I'm reading something that's really engaging—where time seems to pass just like that!—and two hours are gone. . . . It's that notion of being completely absorbed in something. I think what the arts do even extends that—it makes it communal.

"You can do art individually, and I know visual art in particular does that probably more than the other art disciplines, although music does it, too—and drama—it depends on what you are doing. But you can [also] create visual [arts activities in a group]—like today we're doing a lesson in our art class, and they're doing joint murals and there's a splatter technique, and all this crazy stuff riffing off of poems, but [it's] *that idea just to be playful* and to be completely absorbed in something, and to lose the sense of time—[to] use play as a way to learn. We do that with the littlest of kids, two-year olds and three-year olds. Play is used as the dominant way to get them to learn, and I think adults lose that ability. The arts to a great extent bring us back to that notion."

How to look at aesthetics. "A lot of aesthetics (my sense of it) comes . . . more from the visual arts people. In the arts, the visual people were way ahead of everybody else. In terms of standards, they broke art-making into art appreciation and art creation. And in the art appreciation piece is where I see a lot of the aesthetic stuff. It's the ability to look at art and speak to what you see.

"One of the things we do a lot of in our course is visual inquiry. We'll start out with a representational or a non-representational [piece]—it could be a Rothko, or it could be a Jackson Pollock, or something else, and you open with a question 'What do you see?' And if it's an abstract work they could say, 'I see lines going in a horizontal pattern using multiple color.' 'What else do you see?' And then they'll slowly build this

shared understanding of what a work of art is. If it's representation they might say I see a man. 'What makes you think he's a man?' 'Well he has his legs crossed in a way that looks like a man. Okay, what else do you see?' 'I see that he's wearing a hat.' 'Okay, what else do you see?' 'I see that he's sitting in a coffee shop.' 'What makes you think it's a coffee shop?'

"So you kind of build that sense and you get into *technique*, you get into *representation*, you get into other kinds of notions of aesthetics, and then you do the same kind of inquiry into music. You listen to a symphony or jazz—you can speak to what you're hearing.

"So it's developing that aesthetic sense and then as an educator your responsibility is to layer in the terminology that the discipline uses. So in jazz we might talk about scat singing. That's when somebody uses nonsense words to represent musical instruments. That's what somebody like Dina Washington did a lot of, and other people like that.

"In visual art you can talk about techniques and brushstrokes. So as an educator, you've got to be the bridge to teach those aesthetics, but students already come with an inherent sense of aesthetics and it's your job is to draw it out of them. It's in absolutely all subjects. For me it connects to Vygotski's notion of scaffolding. As best as possible, you start with understanding where you students are in terms of their aesthetic understanding, and then from that place—*wherever* they are—you *accept* that that's where they are . . . they might just say 'I think that's *pretty*'—[and] that's *all* they say . . . so . . . we have to start with ways to build from *pretty*.

"But they might say 'Well the brush strokes have a really amazing vertical quality to them and I wonder what kind of weight they add.' . . . So from that point, you scaffold experiences that move them up, and you use the *standards* for reference—so, 'What can I do to build a little bit, and then build a little more, and then build a little more?'"

Looking at aesthetics as an event of dynamic unfoldment. "The metaphor that I use . . . a literacy person named Louise Rosenblatt, back in the 30s . . . talked about, "When a reader encounters a text . . . what's created from that interaction between the reader and the text is a poem. It's an aesthetic event. So the text has its own inherent meaning. And the reader has his or her own background and baggage they're bringing to the event. But what results is a poem—it's what the interaction of the two has created." And [one student's] reaction may be different than another student's, but in comparing reactions and interpretations amidst a group of people, you can come to a shared, and slightly nuanced and different perspective."

This last comment, by Consultant-4, reminded me of art-critic, Susan Sontag's (2001) comments in her essay Against Interpretation. She talked about how art was processed and experienced—that *art* was not *in* the painting and was not *in* the viewer, but it happened somewhere *in between* the two.

What about the concept of transfer? "The word transfer in my mind relates to what's called the *gradual release of responsibility model* that's where you give students some guided practice on a new skill—teacher modeling first, then some guided practice where they're working with you, then independent practice on the new skill, then transfer of that new skill to a new context, and that's what's working towards learning."

Product and process. "In literacy, what we talk about is a published piece, like a book, or a story or something that's got some finality to it—that they can say I've drafted it, I've revised it, and now I'm publishing it, I've given it to the world and I'm done.

"Not every single thing you do in drama or visual art or music—or whatever—will lead to that final product . . . some are just exercises and meant to build skill. But it is important to get there with some pieces."

Preparing teachers to integrate the arts: flexibility adaptability—even subversiveness is encouraged—and leadership. "What I'm aiming for, is to create a teacher force of adaptive experts, and that we give power to those adaptive experts to make decisions for their own students, rather than prescribe what thy need to do. And in my view that's subversive. I think that teacher education, the field that I'm in, is a bit of a subversive act if you belief . . . that you're enabling teachers to get more power in order to make their own decisions for their own students well-being, because so much of what education is now is oversight-driven. So I just think that you still have to operate in that system, but you can still be subversive.

"You can still make choices for your students that are really contributing to their learning. I think of it in terms of hooks . . . or the moves that you make. . . . The arts, for me, is just a more *dynamic* set of pedagogical approaches than what is generally taught to teachers.

"I think one of the things you want to enforce with people learning this—that there is *definitely a skill set* that comes along with being able to integrate the arts into the general classroom. But you also want to be able to foster the leadership skills, because there's a growing trend (particularly in schools for teachers) to adopt instructional

leadership positions within schools, so if you can carve out space at times when you get together with colleagues to lead a mini-seminar of what you're doing in terms of art and education—I think it's the best way to do it. I think it's more meaningful than the one-day workshop that is the standard professional development model for public schooling.

"What a one-day workshop can provide is maybe some best practice examples of a discipline—or more than one, if you had an arts-integrated day as a professional development day that was facilitated by someone. It wouldn't go very deeply into their experiencing of it and actual teaching of it. But it would provide at least a jumping off point from which to have a conversation as a faculty about the ways you could go. It's more having a specific discussion as a faculty about: 'What our learning goals are as a school, and what we're being required to do, and what are the mechanisms in order to reach that. What is going to engage our students, and what is best going to maximize . . . synergize [learning]?'

"That would give the teachers involved in that kind of experience a certain degree of understanding of the palette of arts possibilities. 'We know what our expectations need to be, we know what the standards are, so given the limited time and resources that we have, what are the ways to best bring this together and still provide a dynamic learning environment for students that somebody like Elliott Eisner would talk about.'"

DISCUSSION: INTERPRETATIONS AND IMPLICATIONS

This research has meant a great deal to me as an artist. It has given me a sense of mastery in understanding the full reach and purpose of the arts. In addition, I have gained a deeper appreciation for art forms other than my own—for dance, music and drama.

In the beginning I had mentioned I long suspected the arts taught something more—I feel this research has definitely uncovered that *more*. That *more* seems to hold important implications for teachers who want to close the achievement gap for the disadvantaged learner because the arts have the power to engage and enrich learning when combined with other academic subjects. And they also seem to help in skills transfer from one domain to another. Another benefit I found was that teacher satisfaction is an important side effect of arts integration. The literature and my interviewees mentioned that the collaboration involved brought increased camaraderie and added value to existing skills inventories.

As I interviewed the participants in this study, I was intrigued by their insights and experiences. Even though we were talking about the arts—which I have always been a part of—my interviewees had operated in teaching atmospheres and environments that were new to me.

The Literature Review section and the interviews in the Findings and Analyses section have made me a believer that the arts are not fluff on the academic platter—in fact, they work to create flavorful and tantalizing educational meals within other academic subjects. In that partnership, they can take the role of spice to the content, or as a binding agent to hold content together. When offered as a main course in their own right, the arts teach skills which transfer to other domains.

Following are key concepts connected with arts integration that I explored as part of this thesis.

The Importance of Transfer

In stand-alone arts classes (music, dance, visual arts, and drama), students learn things such as: perseverance and discipline; multiple approaches to problem solving and decision making; collaborative partnering; inventiveness; multiple perspectives; self-expression; and how to build on ideas. These are generic skills (one interviewee preferred the word *capacities*) that are also inherent in other educational disciplines. So, whether a student is receiving the arts through a stand-alone class, or integrated in non-art subjects, the benefit of skills learned in the arts can work as yeast throughout experience. If students have access to the arts through both stand-alone classes and through integration in other academic subjects, then a great synergy can happen throughout the curriculum.

Divergent Thinking

I learned that the arts offered divergent thinking, which meant encouraging lots of different approaches to problem solving, with lots of possible answers; that convergent problem solving meant one right answer—and that both types of thinking are complementary and needed. Divergent thought helps generate ideas and convergent thought helps refine them. According to the Oxford English Dictionary (de Bono, 1967) *Lateral Thinking* is a type of divergent thinking defined as "generating solutions which might at first seem unorthodox, but that solve problems in a unique way."

Concerning problem solving in general, there are elegant solutions that are *beautifully* worked out, and there are also not-so-elegant solutions that work *beautifully*.

Closing the Achievement Gap

Some of the interviewees mentioned that integrating the arts held a bottom-line promise of closing the achievement gap for the disadvantaged learner. The CAPE program cited in the literature review was a good example of delivering on that promise. Another benefit hailed by parents and educators alike was that the arts enrich and educate the *whole* person.

Arts integration nurtures hyper-linked, multi-layered views that can break assumptions and allow original thought to emerge.

Additionally, this report looked at how arts integration promotes ambient and focused learning as well as depth and breadth. As mentioned in the literature review, "we don't think in numbers and words," we think with feelings and pattern recognition; and when something is reinforced from many angles, deep learning takes place (Rabkin and Redmond, 2004).

Teacher Satisfaction and Increased Camaraderie

The *Report on Annenberg Foundation Arts Integration Experiment* investigated change in teacher practices and the renewal that occurred as a result of learning and practicing arts integration skills (see p.47, this thesis). Greater teacher satisfaction happened as a result of collaborations with artists and colleagues (one teacher commented that teaching sometimes felt like a lonely profession.).

Consultant-4 stressed the skill set necessary to do a good job with arts integration—that it needed to be done strategically, not haphazardly—by learning to blend constructivist methods, inquiry, project-based learning, direct instruction, scaffolding, research, rubrics, and critiques—with fundamentals from the arts. Also, he

said that it required hands-on training, which is often best-accomplished onsite. (The visual arts integration team at Discovery High was a good example of strategically working with colleagues to train them in arts integration, see p.94, this thesis.)

The literature indicated that as teachers learn to use arts integration skills, their experience with collaboration and making relevant connections will grow, and their schools will benefit from improved collegiality and a shared inventory of effective ideas. (In thinking about additional research, perhaps the different ways that training can happen is something that deserves more study—and funding!)

Principals As Key to Arts Integration in the Curriculum

According to the literature and the interviewees, a comprehensive curriculum rich in the arts (both stand-alone and integrated) seemed not to be possible without involvement and interest on the part of the principals. The foundation studies I shared gave examples of bottom-up and middle-out approaches, but top-down at the principal's level seemed, in general, to be the most important place to nurture enthusiasm for the arts. Several interviewees mentioned this. They felt implementation at the district level might be too removed from the implementation point, and implementation at the teacher level needed the principal's support. (See Appendix D for an article reporting on the work of a statewide arts organization's pilot program involving elementary principals.)

It seemed partnerships between city government, the community, arts organizations, parents, and the schools, all working together, were the best ways to bring about integrated arts in the curriculum. (Spectrum High had that sort of arrangement with their supporting partnerships, through a non profit organization.)

Alternative Schools Foster Alternative Creative Thinking

I think alternative schools (whether labeled progressive, niche or magnet), with their need to reach students who find traditional learning a challenge, have gotten it right—at least the schools I visited. Without exception, the principals and teachers I talked with took a holistic, collaborative approach to learning and tended to integrate the arts consciously and unconsciously in all academic subjects to help their students learn. That didn't mean the more cognitive, academic disciplines were given short shrift. They were just taught in a different manner. In fact, the principals and teachers all cared deeply that their curriculums furnished rigorous, academically challenging experiences. Authentic, relevant learning was upper-most in importance to them.

When I asked about similarities to curriculums in traditional public school settings, a few of my interviewees lamented that the departmentalization, fragmentation, and enforced seat-time often found in those environments conspired against educating the *whole* student. A concern shared by most was the ever-present threat of federal, state, and city bureaucracies to standardize curriculums for efficiency. They saw it as an infringement on the ability of teachers to plan curriculums tailored to student needs.

My investigation into alternative schools suggested to me that there are probably many alternative teachers who have long practiced arts integration, but have not formally referred to it as such. One student I spoke with said her school "felt like a school full of artists with no art classes."

Democracy—a Natural and Important Ingredient of the Arts

It was mentioned in the interviews that the arts gave students the ability to make choices, and provided them access to all levels of achievement. The arts also allowed

teachers to be facilitators and participants at the same time, creating a sense of collaboration with students.

Fulcrum High, based their governance and mission statement on *democratic voice* and *choice*. Teacher and student opinions were considered with equal weight in almost all areas. Teachers at this school seemed to naturally (not necessarily consciously) blend the arts across the curriculum as they worked to instill appreciation for democracy. I noted that they drew on concepts embodied within the arts, as well as using the arts as a way to present things. The arts require us to make choices and making choices provides an opportunity for differing viewpoints to be presented, considered, and respected.

Aesthetics

Consultant-1 made an interesting comment about aesthetics:

> Aesthetics is really about *feeling*—about beauty and feeling. If you think about it, its corollary or opposite—anesthetic—[is] numbing or *loss of feeling*. . . . has to do with perception, with the whole nature of seeing beauty—recognizing beauty—sensing within oneself, beauty. But beauty can also be disturbing, provocative, upsetting, pretty.

Another interviewee, Teacher S-1, commented that an appreciation of aesthetics revealed life's higher, more enduring values to her students: "Well I think the students learn a lot aesthetically. We talk about what makes a good life and what the real meaning of life is, and we truly try to help our kids discover what that is for themselves."

The arts are a part of aesthetics, but not the whole. The arts are specific catalysts that lead to aesthetics. Aesthetics can be found through the context of all cultures and

disciplines, since it is the appreciation of beauty. As I thought more about the concept of aesthetics, the word *essence* seemed to make a good stand-in for it.

As I interviewed or observed teachers in science, language, history, and the humanities, I noted they were all employing various forms of the arts to engage students in appreciating the *essence* and beauty of their respective subjects.

Consultant-4 said:

> I don't isolate aesthetics just to the arts. I think there are aesthetics in everything. . . . A scientist can look under a microscope and see the aesthetic principles in a slide of bacteria, or in a butterfly wing. There's beauty in all sorts of things, not just the arts. A mathematician will look at a formula and use aesthetic terms—it's elegant, it's balanced, it's beautiful. It's everywhere."

Consultant-1 described aesthetics as "the frame that holds [cognitive and affective forces] together."

That suggested to me that the divide between quantitative research (exacting and numerical) and qualitative research (interpretive and relational), echoed the artificially constructed divide between cognitive and affective thought—that they are really two halves of a whole, much like the complementary relationship of the arts and the sciences in education.

So, with aesthetics in mind, when we think *specifically* of the arts, "Whose art should we teach?" That's an interesting point to consider, since we all have different affinities for style and form. I especially appreciated a comment by Consultant-3, "The arts represent humanity—all of humanity. The arts are systems and symbols of meaning,

the language of civilization. They are important to our values." In the literature review section this point was addressed in depth.

Statistics, the Wrong Way to Measure the Arts

In considering tests and measures that allow educational programs to live or die, this is a good spot to discuss whether statistical data can reliably verify that the arts boost academic performance. Consultant-3 said: "Students need to know how to negotiate the world and they need to know how to function in society. . . . part of that, I think, comes through the arts and aesthetics." And she also said: "When you're talking about something as complex as learning, what in the world would make people think that there is a single measure, or one way to measure what's going on in somebody's brain?" The arts offer another way of *knowing*. Perhaps different questions need to be asked when measuring the value of the arts.

In the literature, Eisner (1999) said the arts seemed to help academic performance, but questioned whether existing data truly proved direct lift (and then he facetiously asked if other academic subjects might not be used to improve the arts—indicating a bias for stand-alone arts, and raising a caution for those whose zeal would value the arts only to serve other academic interests); and Fowler (1996) mentioned that he thought there was a concern by researchers that those with arts backgrounds, who appear to test better than their counterparts, may have self-selected by having chosen to take arts in the first place, either because they were better students, or that the arts were easier for them (p.139).

I think Rabkin and Redmond's (2004) Putting the Arts in the Picture: Reframing Education in the 21st Century, did a good job verifying that arts integration actually does

what is claimed for it. Their book reflected on the recent national studies, Change: The Impact of the Arts on Learning (Arts Education Partnership, 1999), and Critical links: Learning in the Arts and Student Academic and Social Development (Arts Education Partnership, 2002).

These studies provided extensive quantitative as well as qualitative data on the arts and their effects on academic performance. Although they stated there is still a need for more longitudinal research (looking at groups over time), Rabkin and Redmond felt that rudimentary proof existed that greatly encouraged future momentum.

To all of this, I would say that the value of the arts is not something that can be measured in the way quantitative researchers measure things. Perhaps it needs to be looked at in an entirely new way—from the long-term view and how transfer happens. I know without a doubt that in my own career, transfer has happened—many times over—and most of it came from what I had learned in the arts. From the arts, I acquired attitudes of flexibility and adaptability—key ingredients in the creative thought process.

An Assumption Of Traditional Education Questioned

In an article on integrated curriculum (by Kathy Lake, 1994—Northwest Regional Educational Laboratory: School Improvement Series), the author thoughtfully suggested: "It may be that *sequence decisions* [italics added] currently held are more a product of textbooks than actual necessity for understanding. When the curriculum is based on broad concepts, linked in thematic units, *students may acquire knowledge in very different ways* [italics added], making the traditional sequence less meaningful. This is an area that has not been fully explored in the research on integrated curriculum."

This quote has direct bearing on learning that is art-infused. I have often thought that what happens in the arts is a spherical learning process. For instance, in realistic sculpture, an artist usually doesn't start at the top of the head and work down to the toe. Neither does a painter start in one corner and move across the surface to the opposite corner. It is not a linear type of thinking that is used in the creation of art. I would refer to it as spherical thinking—holistic if you will. A sculpture or painting is created with feeling, working all over the surface at different times, sometimes concentrating on one part, sometimes on another, sometimes working from a model, sometimes from the imagination—sometimes with a clear plan, sometimes without.

Speaking from experience, a visual artist works on the big picture and the small picture at the same time. That fits well with what a keynote speaker said at a recent statewide arts education conference. He was a biologist who talked about new brain research—that *connecting* and relating is how we learn—that the brain processes things as big picture and detail, with everything interrelated—not linearly, and not separated, as previous left-brain/right-brain theory had us thinking.

This new research shows that a holistic approach to learning is paramount—finding linkages—recognizing patterns. Appendix D contains more information from that keynote speech (Zull, 2005): *Arts, Neuroscience, and Learning*.

Soul, Product, and Engagement

Here are things I believe about the *value* of arts and arts integration: The arts express the quality of *soul*. They can move the spirit. They can heal resistance and disinterest. They can be realized as *process* (attitude) and as a finished *product* (thing or presentation). They encourage a multi-perspective outlook. They encourage

individuality, as well as collaboration. They encourage inventiveness and creativity, and they contribute to critical thought.

On the negative side, there seem to be varying degrees of perception (prejudice) that regard the arts as only soft skill, or craft and not as main contributors to rigorous and intellectually challenging academic pursuits. (Granted the arts can be practiced ignorantly or shallowly; however when done correctly, they represent some of the highest levels of human achievement.)

Again on the positive side, the arts are broad and flexible in their definition and embrace all of humanity and education. The arts are not limited to domain knowledge. They are engaging and are complementary to the process of knowledge acquiring.

Funding and Perception of the Arts as Play

The arts always suffer in school budget crunches because it seems they are viewed as expendable luxuries. A perception of the arts *as play* may be a contributing factor.

Even though the arts are clearly of value in educating the whole person, those who hold conservative business views on how to measure success (models of accountability, etc.) may find it difficult to grasp the importance of *play*. Play is a *fundamental* ingredient in creativity and in the arts, because it challenges assumptions and leads to original thought.

Education is a business, and most businesses seek quickly quantifiable measurements—even though it is widely recognized that long-term strategic planning is important for longevity. Education as a business measures competency by tests or assessment. There is pressure to deliver. These results could be regarded as short-term

goals. Idealistically, higher order thinking and transfer are the truly desired long-term goals of education. And that is what arts integration promotes.

In business and education, the long-term value proposition is where the real payoff is found. For Education, I would aver that the word *process* is a term that captures the desired long-term goal—nurturing an attitude for critical thinking and problem solving—and the arts do that. Participation in the arts creates flexible, adaptable *attitudes*.

Shorter-term goals might be *products*, such as a painting, a theatrical play, a dance, a musical performance, or a presentation. These shorter-term goals could be likened to the value *nouns* hold in language. They are *things*. Attitudes are more like *verbs*—they move us forward.

Buckminster Fuller, an immensely creative mind from the previous century once wrote a book called I Seem to Be a Verb (1970, Bantam). For some reason that title has always stuck with me—perhaps because it so well describes the power of *attitude*.

We need the arts to complete us as vibrant human beings, just as we need both nouns and verbs to form complete and vibrant sentences

Points For Arts Educators To Consider

From this research I learned that some arts educators may need to revise their thoughts on arts education—that they may have unknowingly contributed to the perception of the arts as isolated disciplines (Fowler, 1996, p.111).

The arts have a role to play as stand-alone disciplines, but they can also serve the interests of the whole curriculum. Arts educators may err in placing too much emphasis on either technique or mystique. With too much emphasis on accurate skill and

technique, the ability to *play around* and try new things is lost. It is through *play* that new ideas emerge. On the other hand, too much emphasis on mystique or emotion, may contribute to the thought that *there is no sequential or intellectual learning necessary in the arts*. For effective learning a balance needs to happen.

Cross-pollination can open up new views. Ideas gained in collaborating with non-arts teachers can enrich the arts.

A Bridge for Collaboration

This thesis report looked at several complementary sets of thinking processes that could be used to describe different aspects of learning: cognitive and affective thinking; convergent and divergent thinking; creative and critical thinking. The roots of these concepts are all found in Bloom's Taxonomy, and apply to non-arts academic learning, as well. Creativity in the sciences is much the same as that found in the arts.

As I reviewed the research I pictured a two-lane mental bridge crossing a divide between the arts and the non-arts. Divergent, affective, and creative (intuitive) thinking occupied one of the lanes, and cognitive, convergent and critical (logic) thinking occupied the other. That concept of a two-lane bridge might aid collaboration between teachers in the arts and the non-arts. Jointly and tactically, they could look at knowledge-specific domains to identify ways in which to intuitively and logically connect the arts in leveraged learning. For instance, different ways to bring out: *Fluency* (generating many ideas), *Flexibility* (shifting perspective easily), *Originality*, (conceiving of something new), and *Elaboration* (building on other ideas)." Consultant-4 described arts integration strategy as *back-mapping* from Blooms' Taxonomy (see p.142, this thesis).

This research turned up a caution mentioned in the literature review: rational-technicist assignments that tie things up in nice packages and limit possibilities should be avoided. The arts encourage originality and spontaneity. They are feeling and imagination-based, and imagination starts with the thought of infinite possibilities. Conceivably, but not necessarily, with arts integration, each student could be solving an entirely different creative problem in an entirely different way from every other student, but using the same instructional content.

Creativity is about one's innate capacity for original ideas; creativity isn't taught, rather it is encouraged. It is learning to be comfortable with ambiguity and contradiction, and, as several of the interviewees mentioned, *play* is part of that creative process.

Resolution of Earlier Concerns

In the section on Bias I mentioned that I had once considered teaching art in public schools, but instead had chosen a career within a professionally rigorous arts environment where I could practice design theory. It was therefore interesting for me to meet Consultant-2 who promoted a sequential, standards-based learning process rather than a less rigorous crafts-based approach to arts education.

I also mentioned that in my undergraduate education I had witnessed two attempts in which arts integration had yielded questionable results—however, I found my interviewees well aware of pitfalls. Rigorous academic curricula required them to use multiple approaches in assessing comprehension, which didn't allow for sloppy learning. They used the arts to enrich and engage, but these teachers cared deeply that their students grasped content and gained competencies.

Here are some pertinent points made by the interviewees regarding assessment:

Teacher F-1 said: "They may do a beautiful painting. . . . We ask them to explain it if it's not clear. We discuss it. If they were . . . going to draw an albatross, depending on what we were studying, they'd have to draw it in the context of its life cycle or draw it in the context of its habitat or its niche, or its evolutionary path . . . not just a picture of an albatross."

Teacher D-1 said this about resistant math students: "We're not in their math class every day. . . . 'Maybe you're not going to really get into this project as much. It's not going to kill your grade. And hey—maybe you could try it and see if you get anything out of it at all'. . . . There's a life lesson in having to do things that you personally don't see the benefit to, but you have to trust we are looking for a well rounded exposure.'

Teacher S-1 used the arts mainly as an engagement tool and didn't assess that part of the assignment: "It's not just an art that they're going to show me, I have to see the content. . . . Right now they're doing a culminating research project in science, every sophomore has to do it, where they are writing a research paper on a controlled scientific investigation that they are conducting. All aspects have to be done. As well as, they can throw into their presentation some form of their art—it's just a piece of it. I don't give them points for their artwork, that's the passion that they have, that's something that they like to do. That's the hook that they're here for. I give them the points for the science content."

Everyone seemed to do arts integration a little differently, but when teachers required an arts integration component to an assignment, they required it of all students. It was not perceived as a *dumbed-down* version of the assignment which could be chosen as an alternative by those not up to the rigor of the subject. I was pleased with what I

observed and came away, convinced that arts integration, when done well, is a far superior way to learn.

The Right Time for This Topic

When I started this thesis I discovered that the arts integration movement was starting to gain momentum. The state had just passed new requirements for graduation that included arts competencies and administrators were in the midst of developing competency assessment tools (see Appendix D for specific information).

Several national non-profit foundations had written up results of experiments in integrating the arts and had found them to be positive. In the past few years, two government-endorsed studies—including both qualitative and quantitative data—were done on arts integration (Arts Education Partnership, 1999 and Arts Education Partnership, 2002). These studies showed unmistakable gains in academic performance made by students who included art classes with their other academic subjects.

And just as I started data collection, a large statewide arts education conference was held that brought together state arts administrators, arts organizations, and teachers in the arts. A representative from the Department of Education (federal level) was a keynote speaker. Later he joined state representatives of the arts in a discussion of new standards and assessment vehicles. The conference provided an opportunity to network and connect with many resources. (Appendix D contains information from the conference. Included are comments from arts education leaders, as well as excerpts from the conference's key speeches.)

Thoughts on doing research. As a researcher I weighed what I found in the literature with my own experience and knowledge, and that of my interviewees. I also

did observations to watch arts integration in action. (In fact, I became so caught up in researching this project that I eventually asked to attend graduation exercises at one of the high schools.)

Although the learning communities I explored had a vague awareness of each other, they didn't realize how much in common they all shared. I, as the outsider had the privilege of understanding that. The literature, the interviews and the observations echoed and reinforced each other—yet each school and each point of view was unique. The most difficult part was deciding what to include and what to leave out.

Reflections. I began this research by picking up two threads, one from my business background (from planning seminars that integrated sales training with creativity training)—and one from my art school teaching (from collaborative lesson-planning with colleagues and integrating disciplines within the visual arts). Both threads independently came from a common spool that, through this research, I now have come to know as arts integration. These two earlier successful encounters with arts integration happened in very different circumstances. That, combined with this current exploration, enables me to confidently believe arts integration is effective in a variety of environments.

A New Renaissance

One of the books referred to in the Literature Review section was entitled Renaissance in the Classroom: Arts Integration and Meaningful Learning (Burnaford, Arnold, Weiss, & CAPE, 2001). It described a successful experiment in a citywide, multi-cultural approach to arts education done by an organization called Chicago Arts in Public Education [CAPE]. The results of their experiment were remarkable and the title

of the book, Renaissance in the Classroom, seemed prescient. I believe that arts integration has the power to reawaken the intellect of students who have lost interest in traditional academics due to lack of performance or boredom; and to entice students to learn who may think they are incapable of it. It offers teachers a broad palette of dynamic pedagogical strategies to draw upon. Arts integration has been shown to engage, enrich, and leverage the act of learning for *all involved*. If current attitudes and barriers to funding fall, and widespread acceptance and support is given the concept, just think of the possibilities!

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APPENDIXES

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Appendix A: Robert Abramson Profile

NPR Radio Transcript—Profile: Robert Abramson, Julliard

Profile: Robert Abramson of the Juilliard School

January 28, 2005

ALEX CHADWICK, host: This is DAY TO DAY. I'm Alex Chadwick.
All this month, Slate contributor Eric Liu has been introducing us to some of America's greatest mentors. These are teachers whose lessons include more than just how to do a particular task like throwing a baseball or performing a scene. Today, in the last part of the series, Eric gets a lesson from a music teacher for whom playing the right notes is almost an afterthought.
ERIC LIU reporting:
Robert **Abramson** teaches eurhythmics and improvisation at the Juilliard School of Music in New York. That's his official job description, but I prefer Bob's unofficial version.

Mr. ROBERT **ABRAMSON** (Juilliard School of Music): I make love to music. I love teaching it, playing it, writing it, conducting it, hearing it, feeling it and expressing it.

LIU: Bob **Abramson**, teaches something ephemeral. He teaches feel. He deprograms highly trained, technically perfect musicians and reminds them how to feel the music again. And sometimes, he takes amateurs like me and makes us realize we have much more music inside us than we know.

Recently, I went to Bob **Abramson**'s crowded studio on the Upper West Side. The sounds of the street below and of the TV next door seeped into the room. And yet, even with his quiet voice, Bob makes his presence felt quite clearly with his eyes, his flexible face, his movements and, of course, his words.

Mr. **ABRAMSON**: Eurhythmics is a technique of using every part of the body and moving to musical rhythms and feeling what they do. That can be walking, running, hopping, skipping, jumping, falling, lifting, pressing, a lot of things.

LIU: Bob's purpose this morning is to teach me how to improvise in 60 minutes or less. Now this may seem like an oxymoron, teaching someone to improvise, preparing someone to be spontaneous. But in classical music, it's a venerable if neglected tradition.
Mr. **ABRAMSON**: With Mozart, Bach, Handel, Beethoven, the royal family would say, `OK take these four notes...'

(Soundbite notes on piano)
Mr. **ABRAMSON**: `...five notes, make a fugue.'

(Soundbite of piano)
Mr. **ABRAMSON**: And they used to do that. When I do it, it's weird. Everybody says, `How do you do that? How can you make up Bach?' Well, I understand how Bach works, and it makes sense to me, but we don't tend to teach that way anymore.

LIU: Bob starts my lesson with some motions that seem to have nothing to do with music. He has me sit at the piano bench beside him, sway my arms up and down and pound my hands down on the closed wooden keyboard cover.

Mr. **ABRAMSON**: Come now.

LIU: Up and...
(Soundbite of hands hitting wooden keyboard cover)
Mr. **ABRAMSON**: Yeah, good. Good. Forearms. Not quite as louder.

LIU: Right, just...
Mr. **ABRAMSON**: Good. Wrists. Straight fingers. Curved fingers. Ah! That's the beginning of the dance on the piano.

LIU: It's an unusual exercise, but I'm now conscious of my whole upper body as I play. Next, Bob asks me to do something tougher: say my name and, at the same time, play it on the piano. Play my name. The first time through, I realize I've never paid much attention to the sound of my own name.
Say it as I play it?
Mr. **ABRAMSON**: Yeah.

LIU: OK.
(Soundbite of piano)
LIU: Eric. Eric. Eric. Eric.
Mr. **ABRAMSON**: No, that's not quite right. `Ic' is short. You're saying, `Eric,' (pronounced eh-REEK).

LIU: I try again.
(Soundbite of piano)
Mr. **ABRAMSON** and LIU: (In unison) Eric.

Mr. **ABRAMSON**: Yes.

LIU: Eric.
Mr. **ABRAMSON**: Yes.

LIU: Eric.
Mr. **ABRAMSON**: That's musical.

LIU: Eric. Yes, that is a difference, too.
Mr. **ABRAMSON**: But you have to think.

LIU: Yeah. Well, I had to feel it.
Mr. **ABRAMSON**: Yes.

LIU: OK. Now I'm feeling the sound of my name, and Bob starts nudging me forward.
Mr. **ABRAMSON**: Play with it.

(Soundbite of piano)
LIU: Eric. Eric, Eric. Eric, Eric, Eric. Eric, Eric.
Mr. **ABRAMSON**: Slow down.

LIU: Eric, Eric.
Mr. **ABRAMSON**: Finish it.

LIU: (Singing) Eric.
(Soundbite of clapping)
Mr. **ABRAMSON**: You're speaking the language now.

LIU: That, in fact, is a key message of Bob **Abramson**'s teachings, that playing music is just as easy and just as hard as mastering a spoken language. There are commas and periods. There are implied centers to the sentences. There is syntax. Bob's Juilliard students usually

focus on the musical notes on the page before them. This shift in focus to what is suggested between the notes can be disorienting.

Mr. **ABRAMSON**: It's a terrible surprise.

LIU: What's the surprise?
Mr. **ABRAMSON**: That there is a syntax and grammar and that maybe they have to pay attention to it.

LIU: The problem, Bob says, lies in what these students have been taught about what matters musically, not experimentation, but repetition.
Mr. **ABRAMSON**: There's no time to experiment. Rehearsals are expensive, and you just gotta play the notes together. That's led to several diseases in musical America, and one of them is what you just did. You did `Er' and `ic' the same way. Well, that's the quick way. They are the same time, but not the same quality, color, movement, feeling, accent. We teach reading without literacy.

LIU: To combat this, part of what Bob tries to instill in his students is an awareness of the differences between languages and the unique requirements of each.
Mr. **ABRAMSON**: Playing different composers, you have to pay attention to their language, and German music is different than French. So German music...

(Soundbite of piano)
Mr. **ABRAMSON**: ...is not...

(Soundbite of piano)
Mr. **ABRAMSON**: All that sliding, ecoutez, s'il vous plait.

LIU: And so Bob **Abramson** takes this opportunity to get me to glide, to try playing something that sounds like Ravel, even though I can hardly play the piano at all.

(Soundbite of piano)
Mr. **ABRAMSON**: Water music. Come on. French.

(Soundbite of piano)
Mr. **ABRAMSON**: ...(Unintelligible).

(Soundbite of piano)
Mr. **ABRAMSON**: Waves, waves, faster.

(Soundbite of piano)
Mr. **ABRAMSON**: Good, yes. You're like Ravel.

LIU: It's very thrilling.
As he senses something opening up in me, Bob pivots back to what we've been experimenting with before, my name, and he wants to go deeper now.
Mr. **ABRAMSON**: Flick your fingers. Flick. Here we go.

(Soundbite of piano)
Mr. **ABRAMSON**: Eric Liu.

LIU: ...(Unintelligible).
Mr. **ABRAMSON**: Yes. Now play it.

(Soundbite of piano)
Mr. **ABRAMSON**: Eric Liu. Eric Liu. Say it.

(Soundbite of piano)

LIU: Eric Liu.
Mr. **ABRAMSON**: Eric Liu.

LIU: Eric Liu.
Mr. **ABRAMSON**: Eric Liu.

LIU: Eric Liu. Eric Liu.
Mr. **ABRAMSON**: Good.

LIU: Well, there it was. That moment came 22 minutes into our lesson. I had invented music, and I didn't even know it. There's something absolutely fitting about the way Bob **Abramson** used my name as a teaching tool. My name, his name, your name out of a phone book, all these are LEGO blocks lying around, waiting for a child to pick them up. And ultimately, what Bob is doing with me or with his virtuoso students is turning us into children again, giving us a child's ear, a child's senses.

As our lesson wraps up, I ask Bob what I should do now with this newfound sense of my senses.
Mr. **ABRAMSON**: Write a short poem for your child, for your daughter, very simple child's poem. Play it on the fingerboard.

(Soundbite of fingers hitting fingerboard)
Mr. **ABRAMSON**: Hickory dickory...

(Soundbite of fingers hitting fingerboard)
Mr. **ABRAMSON**: The clock struck...

(Soundbite of fingers hitting fingerboard)
Mr. **ABRAMSON**: And...

(Soundbite of fingers hitting fingerboard)
Mr. **ABRAMSON**: Hickory dickory...

LIU: Now on the keys?
Mr. **ABRAMSON**: Black first.

(Soundbite of piano)
Mr. **ABRAMSON**: It's a great tune.

LIU: And great teacher. For DAY TO DAY, I'm Eric Liu.
CHADWICK: Eric Liu is the author of "Guiding Lights: The People Who Lead Us Toward Our Purpose in Life." The book includes profiles of all the mentors featured in our series. The stories were edited by Slate's Andy Bowers and produced by Neal Carruth.
(Soundbite of music)
CHADWICK: Music on DAY TO DAY.

Appendix B: Observations

The Decades

Creating a Play from Dreams

The Science Fair

Liberation Theatre

The Chicago-Seven Puppet Show

The Decades

"The Decades" was part of a study-unit on the Americas. Students were to research and give multi-dimensional presentations that would include music, dance, drama, visual arts, film, food or fads from a specific decade. The eventual presentation would last an entire class period and include the affect of U.S. culture on South America, as well. Each class team would be required to work in tandem with a companion team from another class to decorate the room the day before the presentation.

On the first day of my Social Studies/Humanities observation of this assignment, it seemed like each student paused for a moment before making an entrance. Several students had purple, blue, and multi-colored hair and some wore extreme fashion. Backpacks were piled on the desk and floor. More than a few students were under headphones and there was a lot of noise.

The teacher started with "Okay, now clear the table of everything."

Students were asked to break into teams of three and four and were given a couple of minutes to do so. They would soon draw their decade from a random deck. When two people were left over the teacher gave that group their choice of decades—but first, someone needed to peel off a group of four to join them. [This seemed like an excellent and fair way to handle leftover people.] The rest of the groups drew from the shuffled deck, which inspired varying degrees of approval, and in some cases outright groans.

As the teacher presented the new assignment, several exclaimed that everything they had done to that point had been building up to it. They expressed satisfaction in already having acquired skills that would be needed on the new assignment.

The students were ninth-and tenth-grade groups combined (instructors had them for two years). Instructions for the assignment were to use their imaginations and do thorough research. They could draw on library and web research, oral history interviews, food, costumes, period slang, fashion, guest speakers, etc.

Students excitedly contemplated the possibilities during further explanation of the new assignment. Occasionally, creative classroom management techniques were needed: "SHHHHHH, If I have to ask you again, I'll turn you into Nemo. I don't know why I'm holding this up, but to get your attention. Nancy! Alexander! Jack—don't stop being a kid (cell phone went off at inappropriate moment). David—strike 2! Rick no one else is listening to you—how rude is that! I want you following along while I'm speaking to you. This is not an invitation for… Chill, people! Quiet down please! Michael rocks! (And a student voice could be heard in the group evaluating a related part of the assignment)—This sucks!"

The group that drew *1900* to *1910* had the honor of making their presentation first and getting it over with, but they didn't have a lot of research time. Looking ahead, the group that drew the combined *1980s* and *1990s* had the advantage of plenty of time for research, but would probably need to fight procrastination.

The history assignment was presented in the Social Studies class, but tied to the Language Arts/Humanities class. Students in the Humanities class joined forces with the Social Studies students for a planning session. Combining the teams from Social Studies and Humanities doubled the groups in size and the teams needed to decide how to divide the workloads. One hundred-eighty students participated in the final presentations, and the teachers worked as coaches and evaluators.

The next day, back in the Language Arts section, tips and exercises on doing oral history interviews were presented, and students gathered in small teams to draft possible interview questions. Some students planned oral history interviews as part of their final presentations.

Each Decade group signed a division of labor contract designating different team members to be responsible for different parts of the research and presentation. The contract specified ideas, content and organization, and had a column for self and teacher assessment. Students were to keep journals and write two-page reflective papers on five of the decade presentations.

At the end of their presentation each group would have 25 effort points to distribute among themselves. They needed to vote on which team members deserved what points for the completed work. Before work on the assignment began the group also needed to state, in writing, eight expectations of each other, such as: *group members communicate regularly with each other about work and progress on presentation.*

In addition, the teacher handed out a rubric for a decade-specific research paper to be written by all students. It required well-formed ideas, content and organization, and had a column for self-assessment and teacher assessment. Following each presentation students wrote a two-page reflective paper connecting how the changes in that particular decade contributed to today's cultural landscape.

The final presentations varied in quality, as one would expect in a high school experience. In the 1910 presentation I observed the most impressive technical expertise—a very professional looking short video that parodied a Charlie Chaplin film. The students doing the presenting were the actors. There was also a student interview

with an antique car collector as the collector drove and talked about his car. In another presentation, a student used a well-executed PowerPoint slide show to describe inventions of the era.

Overall, students tackled fashion, fads, sports, the arts (popular writers and painters, etc. of the era), entertainment (dance, radio, comedy, movies, early T.V.), inventions, wars, popular food, political happenings, social events, "eye-witness" oral history interviews, and South American influences. They did it with skits, clothes and furnishings from the era, slide shows, video clips, audiotapes, and original artwork. They also prepared poster-size timelines and brought in artifacts and family photos to decorate the room.

The day of the presentation, students posted logistical drawings of room layouts to guide the setup and décor (for instance all tables and chairs were removed and rugs were laid down to create the atmosphere of a "Love-In" from the *60s*). Positions for display tables were also diagrammed on a map.

For one of the presentations a parent came to demonstrate dance steps. The *50s* and *60s* drew the teachers into the performing arts. For the *50s* they greased back their hair, rolled-up their jeans cuffs, and, in the mode of "Happy Days," wore black leather jackets and sunglasses. Students held a live interview with the main instructor about his teen-age years. Before he sat down, he paused, pulled out his pocket comb, and ran it through his hair with studied *50s* precision of "The Fonz"—an inspired comedic moment! Another teacher who had to this point seemed quiet and reserved performed a hilarious rendition of a karaoke number. This was truly a great example of giving kids an enjoyable learning experience.

Creating a Play from Dreams

During this visit I observed a collaborative effort to create an original play in the drama curriculum. Two groups of students with different skill sets and interests were participating in a semester-long joint project, to produce a play.

Students in a costume class were learning to design costumes based on descriptive grids of characters and scenes. In a creative dramatics class, students captured descriptive phrases of their dreams as they tried out a variety of improvisational sequences to build a script. The play was to be a modern version of the folktale Hansel and Gretel. A professional playwright, was working with them and would eventually write the script.

At some point both classes would meet as one group and coordinate efforts, but currently they met separately to learn and practice their respective skills. Imagination and creativity were main ingredients, but so also were skilled craft and following directions. Strategy, timelines and decision-making were important parts of this project.

In the improvisational drama class, students sat on a row of chairs facing the center of a large empty room. Most of their time was spent moving around the space, and interacting with each other. The group had written down descriptive phrases from their dreams, put them in a hat and randomly drew the slips of paper from the hat. Each student acted out what was written on the slip they drew. They said their lines in a sequence, over and over, but expressively—like a relay, as they continuously moved around the room. The process seemed very nonsensical, but that was part of the plan.

I arranged to see the final eighty-minute production of the finished play and it was wonderful! Snappy dialogue, well acted, just great! I could recognize some of the dream

phases that I heard during my earlier observation—they showed up in unexpected and unusual ways. The instructor-playwright, said neither her students, nor she herself, knew the exact outcome until they arrived at a finished script. What a fine, fine effort it was!

The Science Fair

I joined the crowd milling around displays. Wooden tables had been arranged on both sides of a long hallway and at the very end of the hall was a table with a tiara showcased on green velvet. The tiara was the Science Fair prize for the best project.

I had been invited to the Fair by a science teacher, known for her ability to entice students with no affinity for the sciences into the passionate pursuit of scientific inquiry. The science fair came out of the efforts of the Science Geek Club.

At first, I was a bit overwhelmed by the sheer proliferation of experiments. As a viewing strategy, I decided to read one exhibit in depth and then cruise to see what else might grab my attention. I am in the category of those without an affinity for science, so this was a challenge to suddenly be confronted with a lot of scientific data to take in.

I chose the one immediately in front of me about roller coasters. The topic sounded like fun. It was a hand-drawn, typed display on white cardboard, bent in two places so it would stand up. I dutifully read through every last line—to do it justice. Obviously this kid had his scientific lingo down. Terms were carefully underlined and defined under each explanatory drawing. It surprised me to find how much science was responsible for an amusement ride! His exhibit said he had done research on the Internet and gone on a field trip to ride the roller coaster. He had then analyzed the physics represented by the different parts of a roller coaster ride as shown in his drawings.

When I put in the time to read it, I had surprised myself by actually understanding it. Just then, as I stepped away, the student whose work it was came up with two friends to look at his project. I was amazed—he didn't look or talk anything like the author of the exhibit who I had imagined in my mind's eye.

Next to that exhibit was a block of carved Styrofoam with a racetrack for potato bugs. It was an experiment to see if certain colors made them go faster. And then came an exhibit with Jello and lasers, which I didn't understand. Apparently, it had to do with opacity and the way laser light traveled through Jello. But since no one was standing by to make the experiment come alive, all that I observed were various large slices of red Jello. Apparently the red color of the Jello had affected the experiment in some way.

I moved on to the next exhibit—invited to listen to an explanation by a student experimenting with electrical current. Her exhibit backdrop was plain white cardboard creased in two spots, so it would stand upright. The teacher had given her a substitute part to use in her exhibit because the initial experiment had apparently failed when she used the proscribed lemon slice to run a current through. The experiment looked bare-bones. Batteries she had originally used were loosely held together with scotch tape, but they proved to be up to the task of powering a hand generator! I told her it reminded me of a manually generated bicycle light I once had. I thought she did an exceptionally good job of interacting with viewers. She said she had done poorly in math and science before she came to this alternative school, but was looking forward now to taking physics.

Next I moved onto an exhibit with glitter, fancy lettering and small jars filled with something. It explained how mummification happened. There were mummy-wrapped, artificial plastic mice taped to the board in artistic ways, showing the process. Two girls hosted this exhibit. The real mice they had experimented with were displayed in the small jars, which were filled with a variety of inorganic salts. A lot of artistry and authentic experimentation had taken place and I enjoyed chatting with the students about how they had put together their exhibit.

A little farther down the hall was a tuning fork display on audio pick-up and how it happened. Too many people were gathered around that exhibit, so I looked at some other exhibits. Some were on science philosophy, or theory, and not actual experiments. There was a video playing entitled *Brain Dancing* with a student commentary posted beside it.

I noticed judges walking around with clipboards, taking notes. Then they gathered in a separate room to tally votes. The results: the mummified mice exhibit won the tiara, and the girl with the electrical current experiment won the most interactive demonstration.

This visit to the Science Fair reminded me of a visit I once paid to the San Francisco Exploratorium.

Liberation Theatre

I walked up the well-worn, wide staircase and looked to the right. At the end of the long hallway, was another wooden stairwell leading to the next floor. Just in front of it, a group of people sat on folding chairs. They were watching three actors who also sat on folding chairs. Behind the actors were two open doors to darkened classrooms. I stood on the sideline to watch.

The scene was a bus. One of the actors had long blonde hair. She was sitting with another girl and they were talking animatedly, as teens do. A black woman sat across from them. Suddenly a "tough" white blonde girl emerged from one of the empty rooms and lurched into the scene. "What the F--- are you looking at!" she growled as she looked at the two stunned white girls. She continued to berate them as she sat down next to the black woman. Then I realized the blonde actress who had entered the scene was portraying a black character.

The watching audience was mostly white, but included some Asian and Latino students, and two older African American men. One of the African American men was heavy set, wore a gray golfer's cap and leaned heavily on a cane. The other man wore a colorful African print outfit.

The two white female actors mumbled something to each other, and then got up to get off the *bus*. The African American character (played by loud white actress) continued to harass them, while the black woman sitting beside her passively stared out an imaginary window.

At this point the person who appeared to be the director, an African American female in sophisticated, hip-hop clothing, stepped forward to discuss the scene with the audience

and asked what emotions might be going through the minds of the characters. They talked about oppression, history, and its resultant emotional effect. The older African American gentleman volunteered he'd "experienced those emotions his whole life." The directors asked how the scene might be played differently to yield a better or different result.

After discussion, the director invited the audience to take the place of any of the characters to change the outcome. The older African American with the cane volunteered. He took the place of the seated teenager with the long blonde hair, but did not find the harassing character easy to deal with. Afterwards, he said that he found a habit white girls have, of constantly tossing their long hair, to be irritating (he called it "do their hair thing"). Several people tried different approaches with the main character. (Each time she made a new entrance, uttering her line, "What the F--- are you looking at!") In a last attempt to deal with the character, another audience member tried an empathetic apology "I'm sorry you feel that way, but I wish you a nice evening." That approach worked for a moment to defuse the situation, but the main character made it clear that she felt suspicious of the sincerity of the remarks.

Then the director invited volunteers to stand in front and individually display a gesture that might indicate an emotion going through the mind of the main character.

About ten people volunteered. Voices could accompany gestures. The volunteers were asked to demonstrate their individual emotions four times each in rapid succession. Then the director asked the group to demonstrate their emotions all together and continue until she said stop. There was a loud cacophony of sound and motion. Afterwards an in-depth discussion about race took place. The African American gentleman in the colorful

ethnic print contributed some conciliatory remarks and then the director invited the audience to play the bus scene again. It was played about three more times. Different approaches brought different results, but it was obvious there was no simple answer, and any judgments would be superficial. When the *lesson* was over the director talked about how difficult it had been for the actors to portray those parts. She asked everyone to hug the actresses as well as everyone who had participated,

An Asian girl commented she went to another high school and wished they had something like that at her high school. She said the black community was regarded as cool, but lamented that the groups at her school still didn't mix well.

The Chicago Seven Puppet Show

I walked up the wooden staircase and found the teacher with whom I had made contact. He was a tall man with hair pulled back into a ponytail. He introduced me to the graduate student who would be in charge of the class during my observation and then excused himself to do other work

I settled into a large wicker armchair, which made me feel a little like I was sitting in the corner of someone's living room. As I sat there, students slowly wandered in. Two worn oak coffee tables were in the middle of a space where couches were positioned. Several comfortable chairs were scattered around the perimeter. The room felt expansive with its high ceiling and large stretch of windows. Kids sat on the furniture or floor in various postures. My eye caught a sign reading "Please don't write on the couches," about the same time I saw some handwriting on a couch.

Students gathered in loose clusters and began to rehearse their assignment. The assignment had been to research and do a presentation of one of the famous U.S. trials from the 60s. They were to use their creativity in presenting it and had been working on it for about three weeks. I watched as the student teacher quietly moved around the room and joined each group in a touch-base fashion. Earlier she had told me she had a master's degree in anthropology and was working on her teachers' certificate. She seemed totally at ease with this freeform classroom. People continuously entered and left.

No one seemed to notice my presence. A half hour went by and I began to think I might have missed something. Then the student teacher announced the first presenters needed to take their places.

About eight students positioned themselves behind a couch. What followed was delightful and enchanting—a very well researched and entertaining sock puppet show about the 60s trial of *The Chicago Seven*. Hands with homemade sock puppets appeared from behind the couch. Voices of various timbre and character were heard. Occasionally the tops of student heads could be seen as their respective "socks" became excited during the trial, but for the most part, the "puppeteers" remained out of sight. The socks were not human characters so much as symbols. One sock had a peace symbol on it. One had strands from a cotton mop to create the look of a white haired judge. That student positioned himself in a spot a little farther back from the group so his sock could talk from a removed position. Another used a doll sized ski hat with tassel to represent one of the defendants. One brown and white sock looked like it had a pink tongue. And one student had illustrated his bare hand to act as a puppet. The students took turns reading from their scripts, and giggling as they portrayed the antics and attitudes emerging in the courtroom. At one point when a defending sock behaved outrageously, the trial was halted by the judge sock who called for adhesive tape to tape down the unruly defendant. A skirmish followed with real adhesive tape as the action was performed. The research and scripts were based on actual courtroom transcripts.

In the end, I thought the students did a very credible job of explaining the trial and capturing the era. It was highly entertaining and enlightening.

Later the student teacher led a discussion about the main themes of the trial. She also talked about our own city's riot history and then handed out self-evaluation forms to the group.

Appendix C: High School Artifacts

Discovery High Artifacts

Decade Day Extravaganza Assessment Rubric

Division of Labor Contract

The Americas Decade Day Extravaganza: Group Expectations

Decade Day Research Paper Rubric

The Arts Integration Planning Information Handout

The African Affairs Project and Rubric

Spectrum High Artifacts

Self-Directed Arete Project: Initial Proposal

Final Proposal, and Timeline

Fulcrum High Artifacts

Physics Assignment

Alternative Learning Experience Contract

Log Sheet

Names: Date:

The Americas- 9/10 Humanities

Decade Day Extravaganza Assessment Rubric!

Decade:

Category	Grade and Explanation	Group Evaluation	Teacher Evaluation	Comments
	CONTENT			
Use of Content	15: Decade is presented accurately and includes key historic events; fads, follies, and manias; entertainment; life in the Americas			
Visuals and Props	25: Visuals and props are from or reflect the decade; a variety of visuals and props are used including: CDs, movies, magazines, costumes, furniture, art, and other possibilities; visuals and props are used to support and explain the decade			
Supporting Details	20: Supporting details clearly explain the concepts and are used appropriately			
Appropriate Vocabulary	5: Vocabulary is both appropriate to the presentation and to the audience; may include slang and expressions that reflect the culture of the decade			
Organization	5: Presentation has a clear beginning, organized body, and clear closure			
	PRESENTATION			
Creativity	5: Creativity is used to engage audience and explain the decade			
Voice Quality	5: Rate, volume, articulation, and enthusiasm are used to engage audience			
Humor	5: Positive humor is used appropriately			
Body Language	5: Eye contact is maintained with audience; body movement and position enhance content and allow for appropriate audience participation			
Attire	5: Attire is appropriate and presentable; represents or reflects the specific decade			
Speaker/Audience Interaction	5: Presenters give audience time to think; presenters respond well to audience questions			
	TOTAL: 100 points possible			
	General Comments:			

Decade Day Extravaganza - Division of Labor Contract

You are a member of a team. There is no 'I' in team. A team is only as strong as its weakest link. Do NOT look outside yourself for the leader. Whatever you can do or dream you can do, begin it. Boldness has power and magic in it. Begin it now.

Directions:

There are many aspects to a 'decade'. Things obviously do not start and stop at the artificial human determiners of decades but we can see change, growth, conflict, fad, folly and cultural identity within these periods of time. As a group, you will need to decide TODAY what themes you will be focusing on for your presentation and how you will present them. So let's begin (write neatly please).

Group members: _____ _____ _____ _____

_____ _____ _____ _____ _____

Decade: 19____'s Presentation Date _____/____/ Block ____/_____

Goals: You will need to include information on the following themes, topics, and area's in your presentation. Remember that what you choose here will also be the focus of **your individual** 4-6-page research paper. You will have to combine a couple of the following for your part.

a. Historical events of the decade. _____ _____ _____

b. The fads, follies, and manias. _____ _____ _____

c. The entertainment _____ _____ _____ _____

d. How life in the Americas changed. _____ _____ _____

e. Life in Latin America and the Caribbean. _____ _____ _____

f. Oral History Component (Extra Credit). _____ _____

Methods: How will you present your research (besides in a formal, MLA format research paper) on your day? You will all need to commit to helping to put the room together on the Thursday before and to breaking it down on the Wednesday afterwards. What else will you do to contribute to this being the best school project you have ever done?

Method	**Person or Person's**		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

I AGREE TO DO MY PART TO MAKE THIS PROJECT A SUCCESS FOR THE GROUP AND MYSELF.
NAME PRINTED_____ SIGNATURE_____ DATE _____/_____

Names: Date:

Americas- 9/10 Humanities

Decade Day Extravaganza: Group Expectations

Because of the compelling, extraordinary presentations that you will create as a group, you must ensure that you are aware of your expectations for each other. Group work can become a sticky situation as some members may work more than others. To hold you accountable for your presentation responsibilities, we are asking you to identify the expectations you hold for each other.

For example, you might write: *group members communicate regularly with each other about work and progress on presentation*

After the presentation, you will receive **25 effort points per student** in your group. Based on the expectations you identify, you will then divide these effort points up amongst yourselves. For instance, if one person did the majority of work, you may choose to give her 35 points and only 20 points to the two other group members.

In the space below, list your group expectations. You must identify at least **eight** expectations.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

All group members must sign to acknowledge agreement to the above expectations:

Name: Date:

The Americas- 9/10 Humanities

Decade Day Research Paper Rubric

Category	Grade and Explanation	Self Assessment	Teacher Assessment
Ideas, Content, & Organization			
Introduction	5: Contains a creative, engaging attention grabber, such as vivid description, interesting anecdote, relevant question, effective quotation, or opposing viewpoint; attention getter leads into the thesis.		
Thesis Statement	5: Contains precise and creatively written thesis statement that identifies a specific topic from your decade		
Body Paragraphs	5: Each body paragraph has a strong topic sentence that supports thesis		
Supporting Evidence	10: Ideas and evidence (including quotes from your research) expand on and support topic sentences.		
Conclusion	5: Re-states thesis in a new creative way and contains a powerful ending (question, quotation, etc.)		
Transitions	3: Uses different transitions to connect ideas within and between paragraphs		
MLA Citation			
Parenthetical Citation	5: Any idea, including quotes, that are from an author are cited parenthetically following MLA format		
Works Cited	5: Works cited page follows exact MLA format; at least three print sources are cited; at least five total sources are cited		
Conventions			
	3: Contains 3 or fewer grammar, spelling, and/or typographical errors 2: Contains 4-6 of these errors 1: Contains 6-10 of these errors		
Format			
	2: Paper is between 4 and 6 pages in length; research paper is double-spaced w/12 pt. standard font, and 1" margins		
Rubric/Drafts			
	2: Rubric, rough draft, and outline are turned in with final paper		
Total: 50 points possible			

ARTS INTEGRATION PLANNING INFORMATION HANDOUT

TEACHER:	
GRADE LEVEL:	**SUBJECT:**
UNIT OF STUDY:	
Approximate DATES OF UNIT: BLOCK PERIOD ☐ SINGLE PERIOD ☐	
VISUAL ART PROJECT:	
CONTENT AREA and/or VISUAL ART SKILLS/IDEAS/THEMES TO BE TAUGHT: • • •	
Questions you have for visual teaching artist: • • • • •	
IDEAS/THOUGHTS/COMMENTS REGARDING THIS PROJECT: • • • • •	
FEEDBACK/COMMENTS FROM TEACHING ARTIST ON REVERSE	

SCHEDULED DATES FOR PROJECT: _____

(To be filled in by arts integration coach or teaching artist)

QUESTIONS FOR THE CLASSROOM TEACHER:

-
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-
-
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Information needed from classroom teacher in order to make this project successful:

IDEAS/THOUGHTS/COMMENTS REGARDING THIS PROJECT:

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-

African Affairs Project
Annotated Bibliography & Poster

OBJECTIVE

The goal of this two-week project is for students to further their basic understanding of the legacy of colonialism, ethnicity, and post-independence struggle in Africa through the study of a particular African country or a particular topic of interest. Students will choose an African nation, or propose a topic or issue to research and present, compressing research data carefully into a poster format. The project will afford students the opportunity to explore essential questions through analysis of both historical and current information and statistics. Final products will include a typed annotated bibliography and original poster.

REQUIREMENTS

- Typed **annotated bibliography** with proper citations, a concise paragraph summary and evaluation of the quality and utility of source content (minimum 4 sources)
- Polished **poster** that meets requirements for content, design, and craft
- All posters must somehow incorporate **history, statistics and current events**
- All nation posters must have a **focus**, either A) pre-colonial civilization, colonization, or post-colonial independence, or B) some other "focus" approved by the teacher
- Issue/topic projects must complete a proposal for approval by the teacher
- Work individually or with a partner, using all class time productively
- Nation projects must complete "Nation State Research Questions"

RESOURCES

- List of African nation states
- Africa Research (Internet Links)
- Nation State Research Questions
- Sample Annotated Bibliography
- In-class: Internet access
- Homework: internet, books, magazines, CD-ROM, public library

ASSESSMENT (See Assessment rubric on reverse side)

10 Points	PROGRESS CHECK: Research and annotated bibliography
10 Points	ANNOTATED BIBLIOGRAPHY: citation & source summary/assessment
10 Points	POSTER CONTENT: historical background, statistics, focus
5 Points	POSTER ORGANIZATION AND DESIGN
5 Points	POSTER CRAFTSMANSHIP AND EFFORT

TIMELINE – 2 period for research and notes, 1 period for poster prep, 1 period for presentation/review

- Jan. 27&28: research notes and annotated bibliography draft, begin poster
- Feb. 1: One class period for poster preparation
- Feb. 3&4: Poster Peer Review - Refer to Review Sheet
- Feb. 7&8: One class period for poster viewing. Students present posters in the "Expert's Chair" for Critical Response. Typed Annotated Bibliography Due.

African Affairs: Annotated Bibliography & Poster Assessment

NAME _____ ***NATION or ISSUE*** _____ ***PERIOD*** ___ ***SCORE*** ____ */ 30*

	10 points	5 points	0 points
ANNOTATED BIBLIOGRAPHY	**Format:** 12 pt Times Roman, proper citation format, full paragraph (3 or more sentences). **Content:** Concise, accurate summary of source, as well as assessment of its quality and specific utility for different potential audiences.	**Format:** Format incorrect or inconsistent. **Content:** Does not show clear understanding. Source not adequately summarized. Quality and utility of source not assessed adequately.	No serious attempt made with **Format** or **Content.**

	10 points	5 points	0 points
POSTER CONTENT	A clear title allows viewer to quickly grasp topic. Using paraphrasing, information is compressed and presented clearly and concisely in bullets, brief sentences or captions, rather than lengthy paragraphs. Descriptions are crisp and engaging. The poster is truly informative. Offers original insight into essential questions. **History:** Clear chronology of essential facts. **Statistics:** Well-selected and relevant data. **News:** What is the current state of affairs? **Nation Focus:** Clear overview of ethnicity, early civilization, colonialism, independence or other approved focus. **Issue Focus:** Defines and explores one issue clearly and in a balanced fashion. Suggests possible remedies or directions.	Topic focus is present, but not readily discernable. Some information is topic-related, but may ramble off-topic. Not enough thought has gone into "what" and "how much" should be written. Descriptions are not particularly engaging or clear. The poster is moderately informative and does not offer original insight into essential questions. **History:** Chronology unclear or incomplete. **Statistics:** Imbalanced or spotty. **Nation Focus:** Unclear picture of ethnicity, colonialism, independence, and current state of affairs. **Issue Focus:** Defines and explores one issue clearly and in a balanced fashion. Suggests possible remedies, directions.	Main topic is unclear. Text and images are irrelevant, inadequate, inappropriate, or not related to one another. Accuracy of information is questionable, unacceptably one-sided, or may be plagiarized rather than paraphrased. The poster is not informative. The poster has not made a serious attempt at treating **history** and **statistics**, and is unsuccessful in development of the **nation** or **issue** focus.
	5 points	3 points	0 points
POSTER ORGANIZATION & DESIGN	Viewer is immediately struck by clear layout and a design concept that balances quantity of text and images, as well as their physical arrangement on the poster. Poster is eye-catching, yet also easy to read. Images are captioned, and have been carefully selected or created in appropriate medium. Images and text are logically related and complement one another. Makes good use of color palette and space to achieve a unified and successful overall visual impact.	Effort at organizing images and text is moderately successful. Selection and arrangement are somewhat imbalanced. Images and text are not arranged so as to take best advantage of one another. Captions are missing or inconsistently written. Insufficient (or excess) quantity of images. Colors clash. Inconsistent presentation of information limits overall visual impact. Somewhat confusing to the eye.	Selection and organization of images and text are inadequate. There is no apparent effort at arrangement for an overall impact. Text and images appear to have been randomly selected and casually placed. Images lack captions.
	5 points	3 points	0 points
POSTER CRAFTSMANSHIP & EFFORT	Final poster has a polished and professional appeal. Obvious effort and care in creation and final assembly of images, texts, and captions. All text has been carefully proofread, and either handwritten with great care or typed in readable size and font. The poster has a professional look to it and is clearly the result of original thought, careful planning, and painstaking effort.	The poster offers mixed appeal, with potential for success that is not fully realized due to missed steps or carelessness in planning, creation or final assembly. Text has not been carefully developed and proofread. Print is difficult to read. Although good thinking may have gone into it, the poster's success has been compromised by hasty rendering. The end result is "too little too late."	The poster appears to have been quickly conceived and rendered. Minimal effort has been made in stages or planning, creation, and final assembly. Text and images are random and messy. This poster does not represent sincere effort.

Self-Directed Arete* Project

*Arete [Greek]: excellence, virtue; akin to the idea of "personal best" in athletics (aesthetics)

As a culminating experience of your high school education, you are being asked to pursue your arts focus at great depth. The Arete project is designed to give thoughtful, concrete, and shareable shape to your educational experience. This project creates opportunities to pursue a personal, well-defined project with specific goals. The Arete project, an individualized plan you design with the help of an appropriate faculty technical advisor may take the form of an internship, an exhibition, a research or community service project, or a production. You may work as an individual or collaborate with others in a group.

Whatever form your final "product" takes, reflect upon these **guiding principles:**
* **the quest for QUALITY:** this project should reflect your very best efforts; it should demonstrate the excellence and professionalism appropriate for sharing with the larger community.

* **the PERSONAL STRETCH:** your project should take you beyond "the known" and your learning and creativity beyond your comfort zone. Your project should demonstrate an application of knowledge and creativity, and it should reflect the integrated, multidisciplinary richness so essential to education. If your project involves a group, outline a plan of action that ensures fair, equitable distribution of responsibility.

* **the COMMUNITY connection:** find a way to enrich others through your project

Your final project **will include the following:**
- **PROPOSAL**
  - and **proposal revisions** -- good exploration may lead to moments that will lead to new ideas and change
- **EVIDENCE of your work** * your project proposal will be the first piece. Also include photos, letters of recommendation, initial sketches, quotes, etc.
- **a JOURNAL**, an ongoing log which documents the process. This may be a section in the "evidence notebook."
- **CORE WRITING** that will accompany your final product. This may be small or large but will include research that sites your sources. This can take the form of a traditional research paper, artist statement, reflective essay, or other appropriate support materials. Students are expected to engage in research and site sources.
- **a FINAL PRODUCT** may take the form of an internship, an exhibition, a research or community service project, a performance, a production, and is open to your imagination
- **an appropriate ORAL PRESENTATION** that follows culminating project guidelines.
- **a SELF EVALUATION** that reflects upon the process, the product, and your learning. Site your sources.

A note on **GROUP projects:** Individuals of group projects must prove that his/her participation is a vital part of the project -- no parts may be duplicated. For example, two students working on a documentary must approach the subject from two distinct points of view so that the sum of the two parts tells a more in-depth or complete story. The two students cannot simply do twice as much work. It is suggested that no group be larger than four (4).

Projects are graded and will be 10% of your grade in every Spring semester course.

NO: quilts, collages, crafts.
You MUST work inside your field of reference

5/18/05

Self Directed Arete* FINAL Project Proposal -- 2006

A separate proposal must be submitted for each student.

Purpose: The purpose of the proposal is to convince the reader that you have a **QUALITY PROJECT** that **CONNECTS TO THE COMMUNITY** and creates a **PERSONAL STRETCH** for you. It is also intended to provide proof that you have the ability and resources to bring the project to **COMPLETION.**

DO NOT BEGIN WORK BEYOND RESEARCH AND DEVELOPMENT WITHOUT APPROVAL

Name: Your phone: Your E-mail:

Other group (max. 4 per group) members : Mentor (Friday):

Project Title:

Faculty Technical Advisor (pick one):

__K __P

__R __D

__T __S

Community Technical Advisor (optional):

Possible project locations (along the Light Rail route - not 1950):

Length of oral presentation:

Setup time: Breakdown time:

ON A SEPARATE SHEET, TYPE YOUR NAME AND THE FOLLOWING - attach it to THIS sheet

- Detailed description of final product -- also include where it will take place.
- If you are working in a group, list all members and the roles they will play. Individuals of group projects must prove that his/her participation is a vital part of the project -- no parts may be duplicated. For example, two students working on a documentary must approach the subject from two distinct points of view so that the sum of the two parts tells a more in-depth or complete story. The two students cannot simply do twice as much work. It is suggested that no group be larger than four (4).
- Statement of purpose (why) and intent (what)
- Why did you decide on this project topic or why is it important to you?
- What NEW KNOWLEDGE and/or SKILL do you expect to have learned upon completion of this project?
- How does this project constitute a CHALLENGE for you?
- What RESEARCH will this project require you to do? What type of SOURCES will you use?
- What RESOURCES and MATERIALS will you use?
- In what way does your project connect with or serve the COMMUNITY?
- List all the MAJOR STEPS and TIMELINE that you think you might take to complete this project?

I, _____, agree to the above described project in accordance with the requirements specified for the Culminating Project

_____ **Student's Signature**

_____ **Parent's Signature**

_____ **Faculty Technical Advisor's Signature**

This completed form must be submitted to the Arete Project Coordinator signed and approved by September 29, 2005. Remember to keep a copy for your "evidence notebook."

5/18/05

Self-Directed Arete* Initial Project Proposal -- 2006

A separate proposal must be submitted for each student.
In the case of group projects, all team member proposals must be stapled together.

Name (if group, all members): Mentor (Friday):

Project Title:

Faculty Technical Advisor (pick one):

__K __P
__R __D
__T __S

Community Technical Advisor (optional)

Possible project locations (along the Light Rail route - not 1950):

Length of oral presentation:

Setup time: breakdown time:

1. Statement of purpose (why) and intent (what):

2. Detailed description of final product -- also include where it will take place :

3. Why did you decide on this project topic or why is it important to you?

4. What NEW KNOWLEDGE and/or SKILL do you expect to have learned upon completion of this project?

5. How does this project constitute a CHALLENGE for you?

6. What RESEARCH will this project require you to do? What type of SOURCES will you use?

7. What RESOURCES and MATERIALS will you use?

8. In what way does your project connect with or serve the community?

9. On the back of this sheet, list all the MAJOR STEPS and TIMELINE that you think you might take to complete this project.

Arete Project Timeline -- CLASS of 2006

April 20, 2005	Discuss project and pass out materials Brainstorm Begin **Initial project proposals**
April 27, 2005	Breakout groups Rewrite/finalize **Initial project proposals** -- turn in **MAKE A COPY FOR YOURSELF**
May 27	Attend Sr. Projects 2005 -- get more inspired
Summer 2005	Preliminary work, research, rewrite, fine-tune ideas. Start your journals
September 9, 16, 23	Practice oral presentations of proposal - to mentor groups
September 29, 2005	**Final proposals due --** **MUST BE TYPED** -- use initial proposal as a model **MAKE A COPY FOR YOURSELF**
October 21	Senior-led conferences will include a 1-3 minute oral presentation of project proposals
Oct. - Dec.	Work with faculty advisor. Due dates by instructor. Evidence of work Journal Core writing Oral presentation Final product
January 5, 2006	**Final revisions due** -- (Last date for major project changes) **MUST BE TYPED** **MAKE A COPY FOR YOURSELF**

April WASL 2006 week activities-

- 1st day (Tuesday)
  - Senior meeting
  - **Evidence/Journals DUE**
  - Almost final draft of **CORE WRITING due** to Faculty Advisor
  - Schedule of practice ORAL PRESENTATIONS announced
  - Arrange/finalize setup time and tear down (clean up)
- Week 2 (Monday-Thursday)
  - Work on final touches
  - Practice ORAL PRESENTATIONS as scheduled

May 26, 2006 Final presentation

5/18/05

Fulcrum High provided by Teacher F-2

Physics Assignment

1) Pick a musical instrument or sound detector, such as the human ear and research how it works from a physics perspective. Don't forget to use what you learned last week about waves.
The following list of vocabulary might help to search for information or inform the direction of your investigation:

Doppler shift	Decibel	Beat dissonance
Pitch	Closed-pipe resonance	Consonance
Loudness	Standing wave	Fundamental
Octave	Open-pipe resonance	Harmonic
Sound level	Timbre	

2) Create an interesting visual and auditory way to present your findings.

3) Taking what you learned about sound and your instrument, design a new instrument or a modification on an existing instrument. Bring your invention to class as part of your presentation.

Check one: ☐ independent study ☐ field study Check if on transcript ☐

ALTERNATIVE LEARNING EXPERIENCE CONTRACT

Student_____ Facilitator_____ Coordinator_____
(phone number if FIELD contract_____)

Course Name_____ For: LA/Math/Sci/SS/PE/OccEd/Hlth/Art/RstEl/El SPS Course Number_____

STUDENT: Why are you taking this course and what do you intend to learn?

FACILITATOR: Describe the *learning activities* the student is expected to successfully complete. This description should be sufficient in detail to guide and advise the student of the expectations for this independent study. Include description of how much time should be spent on these activities. **A minimum of 20 hours/month is required.** (Suggestion: List the overall learning goal as the main activity, then use outline form to describe the intermediate steps or activities that will guide student to accomplish that goal.)

FACILITATOR: Describe the *teaching component(s)* of the program, including where and when teaching activities will be conducted by school district staff. Specify frequency of meetings with facilitator and/or coordinator.

FACILITATOR (COORDINATOR if field study): Describe what must be completed/turned in/accomplished/demonstrated/etc. for the student to earn credit. Include requirements for documentation of hours, journaling, presentation, etc.

Amount of credit expected_____ REVIEWED BY_____

START DATE_____ END DATE (requirements will be complete or contract will become "incomplete" on)_____

We agree to fulfill the requirements for learning activities, teaching components, and basis for credit as specified above.

Student_____ Facilitator_____Coordinator_____

COORDINATOR'S LOG (Reminder: ***Student should submit documentation of hours at least once a month.***)

Date	**Hrs completed to date** (add documentation as needed)	**Skills learned/improved**	**Next steps**

STUDENT: Comment on what you learned and how you learned it and the quality of your work. (Attach additional reflection or report if specified in requirements for credit.)

STUDENT: Comment on the quality of the facilitator's help, such as class organization, quality of assignments, useful and timely feedback, attitude toward students, effective use of class time, instructional style, and mastery of subject. (Attach additional evaluation/feedback forms if used.)

FACILITATOR/COORDINATOR (please initial): What activities were completed?

Comment on the quality of the student's participation, such as mastery of subject, initiative, motivation, attitude, study skills, and preparation. (Attach additional evaluation feedback forms if used.)

Credit earned: ____ Course name & SPS number (note reason for change if different from front of contract): _____

Transcript Date: _____

STUDENT: _____ DATE: _____

FACILITATOR: _____ DATE: _____

COORDINATOR: _____ DATE: _____

REVIEWED BY _____

Name ______________________________ Class ______________________

LOG SHEET

Proof	Activity	Date	# of hours

Appendix D: Conference Artifacts

ArtsTime Conference Handouts

Doug Herbert Keynote Speaker

James E. Zull Keynote Speaker

Superintendent of Public Instruction Letter

Putting Arts Education Front and Center

Key Policy Letters/Education Secretary

ECS Chairman's Initiative

Update, Office of Superintendent of Public Instruction

The Changing Roles of Arts Leadership

ArtsEd Washington Principals Arts Leadership Initiative

Getting To the Top

by Doug Herbert,
Special Assistant on Teacher Quality and Arts Education
to the Secretary of Education
Keynote speaker–ArtsTime, Friday, March

A year ago, I traced the developments in making the arts a core subject over the past 25 years for an article in the journal of the National Association of State Boards of Education (NASBE). I likened that effort to the plight of Sisyphus, who toiled unceasingly to push a boulder up a steep hill. But, I concluded that recent developments in curriculum, assessment, research and policy, most notably inclusion of the arts as a core academic subject in the *No Child Left Behind Act* (NCLB), could be effectively harnessed to move the boulder to the top of the hill. (For those interested in that recounting and analysis of arts education developments, the article, "Finding the Will and the Way to Make the Arts a Core Subject," can be found at *www.nasbe.org/Standard/Past.html*).

I contended then and now that in order to truly make the arts a core subject, meaning that they would be sequentially taught and rigorously learned by all students, actions must be taken on three levels simultaneously

First–commitment

First, there must be commitment from citizens and taxpayers, and that most importantly includes parents. Recent national polls of public attitudes about the arts indicate that a majority of Americans consider the arts to be vital to a well-rounded education for all students. But they may not be aware of two important, contemporary aspects of that belief: what it means to have a comprehensive, sequential program in the arts, especially in terms of the standards-based nature of the curriculum. For instance, parents in Washington state may not be aware of, or familiar with, the Arts Essential Academic Learning Requirements (EARLs). Additionally, parents and the business community should understand how preparation in the arts is also an excellent foundation for careers in this new century. Let's not only tell them about it, via brochures and PSAs. Better still, let's get them into the schools to see the unique ways in which creativity, problem solving, teamwork and higher-order thinking skills are developed through the arts. Parents and businesspeople will see these skills in action, which is important because each skill is necessary for success in today's marketplace of ideas.

Second–arts must be central

Second, we must establish the arts as central within the local schools. While *No Child Left Behind* declares the arts to be a core academic subject, each local school district must make that a reality based on its state standards and local curriculum. Unfortunately, some districts are not including the arts as a core subject, and, in some instances, blaming NCLB for cutbacks or even eliminations of arts programs.

Then Secretary of Education Rod Paige "set the record straight" about NCLB and the arts in a July 2004 letter to state and local superintendents. "I believe the arts have a significant role in education both for their intrinsic value and for the ways in which they can enhance general academic achievement and improve students' social and emotional development," he wrote. Then the secretary explained the flexibility of funding under NCLB, citing programs that have used federal education support to make the arts a part of their education improvement efforts. The secretary's letter, which is accompanied by an enclosure describing research reports and other resources helpful to principals and teachers, can be found at *www.k12.wa.us/curriculumInstruct/arts/*.

In Washington state, the EALRs are helping to establish the arts as central in local districts by setting clear benchmarks for achievement in arts content, knowledge and skills. Washington also is among a handful of states committed to making assessment a companion to the arts standards. With the support of the legislature and leadership from the Office of Superintendent of Public Instruction, the Washington Classroom-Based Assessment, which begins next school year with voluntary assessments in local districts, is off to a very promising start. In addition, starting with this year's ninth graders, Washington state students will graduate from high school with at least one full year of study in the visual or performing arts.

Third–acceptance and efforts

Third, there must be acceptance of the arts by teachers and administrators, combined with efforts to ensure that they have the knowledge and skills to plan and carry out a comprehensive, quality arts education program. The *ArtsTime conference* is an excellent means to this end as well as an opportunity to discuss other, more intensive and sustained ways to achieve this goal. And to do so, it will take the continued commitment of the conference's sponsoring organizations as well as higher education, the state's associations of school policymakers and administrators, business and corporate interests, the philanthropic community and other stakeholders in public education.

When we gather in March, I will share with you not only some further thoughts on why and how we can and must move forward on these three fronts, but indicate resources at the federal and national levels that may be helpful to you as advocates and practitioners. I look forward to seeing you then.

Arts, Neuroscience and Learning

by James E. Zull,
Professor of biology and director of the University Center for Innovation in Teaching and Education at Case Western Reserve University
Keynote speaker–ArtsTime, Saturday, March

What do we mean by "art?" This question is not a new one, but it keeps coming back to puzzle us and stimulate our thinking. We do believe that arts are valuable, even essential, in a fulfilling life. When we make this claim, we are thinking mainly of the traditional definition of arts: music, dance, drawing, theater and so on. And it is this belief that leads us to include these arts in the school curriculum.

But we also have a broader concept of art. It seems that we all have our "art." Be it the painter with a brush, a successful businessman, a mother comforting her crying child or the paper-boy distributing the morning paper on each doorstep as he flies by on his bike; whatever we have mastered in our life, can be considered our "art."

One facet that is common in all these arts is the sense of mystery. We say that a person has mastered an art when he or she succeeds but can't say how. Wonderful things happen, but no one is able to dissect the steps or write out the formula for success. It is just an art!

Is it possible, then, to discuss art in terms of science? If all human behavior and achievement is the result of physical and chemical events in our brain, then ultimately we should be able to do this. But we are skeptical. In fact, if we actually could describe the science behind an art, we might wonder if it would still be an art. Maybe the act of description is also an act of destruction.

This negative view of science goes against our broad definition of art. The neuroscientist is also an artist. The very process of seeking understanding has its own mysteries, so we continue to ask questions and try experiments that probe the "hows" and "whys" of art. We seek for the connections between art, thought and learning. And we continue to believe that the arts are essential in school, as essential, or in some cases *even more essential* than what are normally called the "basics."

So what are we discovering? What has the art of neuroscience told us about the arts and learning?

Changes in the brain

One thing we have found is that the brain physically changes when we learn, and that change is most extensive and powerful when emotion is part of the learning. The chemicals of emotion, such as adrenalin, serotonin and dopamine act by modification of synapses; and modification of synapses is the very root of learning. Changing connections in the brain *is* learning. In some cases, such change does not occur at all unless the emotion chemicals and structures in the brain are engaged.

The important idea, then, is that the arts trigger emotion. This could be part of the answer to our question above: What is art? Artists create things that engage others, emotionally. And, of course creating itself is engaging–the artist also feels emotion. The arts, then, change the brain of both the creator and the consumer.

Another thing that changes synapses in the brain is practice. We learn the things that we repeat the most. We repeat the things that we care about, so we enjoy the arts and repeat them over and over. This intensity of effort and focus is healthy for learning. It also changes the brain.

There are other lessons we can learn about the connections between arts and neuroscience. For example, the reward chemicals such as dopamine have their primary effects on our frontal cortex. Dopamine is produced in the brainstem, which is the oldest part of the brain evolutionarily speaking, but the dopamine is released in the newest region of cortex, the part that we use to create ideas, make decisions and plan our actions. Thus, we feel rewarded when we create new objects or actions. And since creativity is based on the decisions made by the creator, the reward system kicks in when we are in control and inventing things that we have thought of ourselves. Freedom and ownership are part and parcel of the neurochemistry of the arts.

The importance of the arts in school, then, is strongly associated with motivation and interest. Students love and remember their art classes, theater experiences, musical performances and creative writing. But beyond this, they may also love their algebra, chemistry and history. In fact, they will love these academic experiences if we allow the normal neurochemistry of learning to take over. To the extent that they provide freedom, creativity and mastery, the academic basics become an "art."

Realizing the centrality of arts for learning is important not only for teachers and school administrators, but for parents and for society at large. Often when budget cuts loom, a levy doesn't pass or a wage dispute arises, schools begin to cut out the arts. Since they are so much fun, there is an assumption that the arts are less important. However, the findings of neuroscience now allow us to defend our belief in their value. We may even see change in society at large and see learning increase because of it.

SUPERINTENDENT OF PUBLIC INSTRUCTION

DR. TERRY BERGESON OLD CAPITOL BUILDING • PO BOX 47200 • OLYMPIA WA 98504-7200 • http://www.k12.wa.us

January 18, 2005

Dear Washington state educators:

As we begin a new year, I want to update you on the progress our state continues to make in fulfilling the goals of our long-term educational plans in social studies, the arts, and health and fitness.

More than 10 years ago, we began a major effort to reform our education system so that it better prepares our children for the complexities and challenges of life in the 21st century. As part of that effort, we created essential academic learning requirements and set a series of timelines to create and implement assessments to assist teachers in monitoring student progress toward those goals.

State and federal actions continue to impact our work. We continue to face a state fiscal crisis, and the legislative session just getting underway will include serious discussions about our assessment plan, among other education issues. The federal "No Child Left Behind" law continues to force extra attention on student achievement in reading and mathematics because of the potential consequences of missing key achievement targets.

Efforts to improve student achievement in reading, writing and math are critical for reasons well beyond federal or state mandates. However, that in no way diminishes the importance of the other subjects. We have a responsibility to educate the "whole" child. Reading and math may be the gateways to learning, but mastering those skills doesn't deliver a well-rounded education. We will develop healthy, creative and responsible citizens only by encouraging students to apply their "foundational" skills in exploring scientific concepts, debating social science principles, improving their own health and wellness, and developing their creativity and appreciation of the diversity of cultures represented through the arts.

With that goal in mind, we focused a great deal of time in 2004 on developing and piloting classroom-based assessments for 5th- and 8th-graders and high school students in social studies, the arts, and health and fitness, among other subjects. These assessments in social studies, the arts, and health and fitness allow teachers to gather examples of student work throughout the school year – consistent with their instruction schedules – that provide evidence of student achievement in ways that best fit individual students' needs and interests. Also important, the assessments give critical feedback about what students know and are able to do in these Goal II areas at the elementary, middle and high school levels. The teachers and administrators on our assessment leadership teams have gone to great lengths to ensure these assessments will improve instruction without overburdening teachers.

Our Goal II team at OSPI dedicated hundreds of hours during the past year to introducing teachers to these assessments and providing scoring training. And I am pleased to report that the assessments are receiving rave reviews by educators. Hundreds of teachers already are using them to measure the progress of more than 300,000 students. We look forward to continuing to assist teachers and administrators throughout the state use these helpful new tools. All of the pilot assessments are available on our Web site at www.k12.wa.us (click on Curriculum/Instruction, and then the subject area of interest). If you have questions about the classroom assessments, please feel free to contact one of the program supervisors listed below.

Published: January 26, 2005
Commentary

Putting Arts Education Front and Center

By **Rod Paige** & Mike Huckabee

As a nation, we must develop children who are **prod**uctive, happy, well-adjusted citizens, rather than kids who can just pass a test and get through school.

Since the time when humans drew figures on the walls of the caves of Lascaux, the arts have been our means of recording human experience and making meaning in the world. They are a sign of a thoughtful, inventive, and creative citizenry. As the global economy becomes faster and more competitive, these qualities are increasingly important. As such, the arts are an integral part of a complete, successful, and high-quality education.

Study of the arts enhances young people's intellectual, personal, and social development. The arts provide a rich and engaging curriculum that develops students' abilities to think, reason, and understand the world and its cultures. A comprehensive arts education encompasses such areas as the history of the arts, the honing of critical-analysis skills, the re-creation of classic as well as contemporary works of art, and the expression of students' ideas and feelings through the creation of their own works. In other words, students should have opportunities to respond, perform, and create in the arts.

Research has shown that those who study the arts improve their achievement in other subjects, including mathematics, reading, and writing. In math, for example, studies point to a direct connection between music and spatial reasoning and spatial temporal skills, which are important to understanding and using mathematical concepts. For high school students, coursetaking data collected by the College Board indicate that students of the arts annually outperform their nonarts peers on the SAT. In 2004, for example, students who studied music scored 40 points higher on the math portion of the test than students reporting no arts coursework. Similarly, students who studied acting

and play production outscored their nonarts peers on the verbal portion of the SAT by an average of 66 points.

The effect of arts study on reading is similar. Because reading is the educational skill upon which all others in our lives are based, the No Child Left Behind Act focuses on literacy and sets the goal that all students read by the 3rd grade. We know from research that the arts can help achieve this goal, and that certain forms of arts instruction enhance and complement reading instruction. Studies have shown, for example, that when creative dramatics are a component of reading with preschool-age children, skills in comprehension and vocabulary increase.

The academic benefits of arts education also go beyond math and reading. An analysis of U.S. Department of Education data on 25,000 middle and high school students found that students who were highly involved in the arts performed better on a variety of academic measures than other students. They earned better grades, did better on exams, performed more community service, and watched fewer hours of television. And a growing amount of evidence shows that the arts can be particularly beneficial to students from economically disadvantaged backgrounds, and can even keep some potential dropouts in school.

Most Americans recognize the importance of this early engagement in the arts. A recent Harris Poll found that 90 percent of respondents considered the arts vital to a well-rounded education for all students. The same poll also revealed that nine in 10 parents of school-age children oppose subjecting arts programs to budget cutbacks.

The arts instill in students the habits of mind that last a lifetime: critical-analysis skills, the ability to deal with ambiguity and to solve problems, perseverance, and a drive for excellence.

To put it simply, we need to keep the arts in education because they instill in students the habits of mind that last a lifetime: critical analysis skills, the ability to deal with ambiguity and to solve problems, perseverance and a drive for excellence. Moreover, the creative skills children develop through the arts carry them toward new ideas, new experiences, and new challenges, not to mention personal satisfaction. This is the intrinsic value of the arts, and it cannot be overestimated.

President Bush and both Democrats and Republicans in Congress recognized that the arts have this intrinsic value, are a necessary component of preparation for life in our democracy, and have a positive impact on student achievement and motivation. They understood that dance, drama, music, and the visual arts provide important skills and are educationally powerful tools for reaching all learners—that the arts can engage a child in ways that defy imagination. That's why the arts are considered a core academic subject under the No Child Left Behind law: They can and should play a central role in fulfilling the law's goal of improved student achievement, as well as similar goals of states, districts,

schools, and parents. And that's why the Department of Education included the arts, in addition to math, science, and reading, in its Research-to-Practice summit, a component of its Teacher-to-Teacher Initiative, this past summer.

The state of the arts varies from state to state and district to district, but we are beginning to see recognition of their importance in education across the country. Using the state of Arkansas as an example, we can see this in more than a dozen school, community, and governmental efforts to bring the arts to students.

• Every public school elementary student in the state now receives instruction in music or the visual arts.

For More Info

Get more information on arts-in-education initiatives of the **U.S. Department of Education** and the **Education Commission of the States.**

• The Future Art and Music Teachers pilot program gives 11th and 12th grade students in at least six schools the opportunity to offer music and visual-arts instruction to K-6 students.

• The Arkansas School for Mathematics and Sciences has been expanded to include the arts, making the state one of only a handful offering a year-round, rigorous program for students gifted in the arts.

• The A+ Schools Program, begun in North Carolina and operating in Arkansas and Oklahoma as well, incorporates the arts into every subject in the curriculum of a number of schools.

Other states are at work in this area as well. In Arizona, state Superintendent Tom Horne's "content-rich curriculum" initiative is investing $4 million in comprehensive-school-reform funds under the No Child Left Behind Act to support arts education improvement efforts at 43 schools throughout the state. The initiative is based on the success of Tucson's Opening Minds Through the Arts program, which received federal support from the Department of Education's Arts in Education Model Development and Dissemination program. Again this year, the department's office of innovation and improvement will solicit applications for both the models program and professional-development projects for K-12 arts educators.

The Education Commission of the States is undertaking a two-year focus on ensuring access to high-quality arts education in our schools. The goal of the ECS initiative—The Arts: A Lifetime of Learning—is to put the arts front and center on the education agenda. Its work plan is centered on four interrelated areas—awareness, research, tools, and state leadership—that, together, form

the word "arts" and provide a set of objectives vital to increasing the arts' stature in education:

• Raise levels of public *awareness* and deepen understanding among state policymakers about the educational, social, and civic benefits of student involvement in the arts.

• Call for and contribute to the development of better state-level *research* and data on which to base policy decisions.

• Equip state policymakers with the *tools* to analyze and interpret state-level information related to the status and condition of arts education and instruction in schools.

• Support *state leadership* in efforts to develop policies and practices designed to improve educational outcomes for *all* students through school-based integration of the arts.

As a nation, we must develop children who are p**rod**uctive, happy, well-adjusted citizens, rather than kids who can just pass a test and get through school. We must ensure that our children can compete in the 21st-century economy by preparing a workforce and a citizenry that can think creatively, skillfully, and "outside the box." The arts are a vital part of doing this—and of ensuring that every student can achieve his or her potential and contribute fully to our society.

We know our nation is up to the challenge, but we must mobilize, inform, educate, and inspire education and policy leaders to recognize the vast potential returns that can be realized by investing now in arts education. Because of their primary responsibility in setting policy and in determining funding levels for public education, these leaders play a critical role in helping to make and keep the arts strong in schools.

By working together to bring the arts to every child in America, not only will we change attitudes about the curriculum, but we also will change the future of our country.

***Rod Paige** has served for the past four years as the U.S. secretary of education. Mike Huckabee is the governor of Arkansas and the current chairman of the Education Commission of the States (2004-06). He also is the winner of the 2005 Public Leadership in the Arts Award for State Arts Leadership, presented last week by Americans for the Arts and the U.S. Conference of Mayors.*

Vol. 24, Issue 20, Pages 40,52

FROM THE ARCHIVES
"President Accepts Paige's Resignation," November 15, 2004.
"Paige: It's Not Too Early to Call School Law a Success," October 6, 2004.
"Principals' Poll Shows Erosion Of Liberal Arts Curriculum," March 17, 2004.
"Arts, Foreign Languages Getting Edged Out," November 5, 2003.
"Study Identifies Benefits Of Arts Curriculum," November 13, 2002.
"Huckabee Wants to Link Ark. Teacher Pay, Achievement," January 23, 2002.
"Paige on Paige: A Talk With the Secretary," July 11, 2001.
"No Simple Answer," November 8, 2000.
"Classroom Renaissance," May 10, 2000.

Your work, year after year, continues to make a huge difference in the lives of our children. You are teaching them to communicate, think and apply their knowledge and skills in ways that will allow them to pursue their dreams. I will continue to do all I can to promote a well-balanced curricula in our schools as the backbone of our efforts to produce engaged, thoughtful citizens. Thank you for your continued commitment to helping to create a world-class education system here in Washington.

Sincerely,

Terry Bergeson

Dr. Terry Bergeson
State Superintendent of Public Instruction

Caleb Perkins	Social Studies/International Education Program Supervisor www.k12.wa.us/curriculumInstruct/SocStudies/CBAs.aspx	CPerkins@ospi.wednet.edu (360) 725-6351
AnnRené Joseph	The Arts Program Supervisor www.k12.wa.us/curriculumInstruct/Arts	AJoseph@ospi.wednet.edu (360) 725-6365
Pam Tollefsen	Health/Fitness School Health Programs Coordinator www.k12.wa.us/curriculuminstruct/healthfitness	pamt@ospi.wednet.edu (360) 725-6364
Lisa Rakoz	Health/Fitness Program Supervisor www.k12.wa/us/curriculuminstruct/healthfitness	lrakoz@ospi.wednet.edu (360) 725-4977

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Key Policy Letters Signed by the Education Secretary or Deputy Secretary

July 2004

July 2004

Dear Superintendent:

As I am sure you know, the arts are a core academic subject under the *No Child Left Behind Act* (NCLB). I believe the arts have a significant role in education both for their intrinsic value and for the ways in which they can enhance general academic achievement and improve students' social and emotional development.

As I travel the country, I often hear that arts education programs are endangered because of *No Child Left Behind*. This message was echoed in a recent series of teacher roundtables sponsored by the Department of Education. It is both disturbing and just plain wrong.

It's disturbing not just because arts programs are being diminished or eliminated, but because NCLB is being interpreted so narrowly as to be considered the reason for these actions. The truth is that NCLB included the arts as a core academic subject because of their importance to a child's education. *No Child Left Behind* expects teachers of the arts to be highly qualified, just as it does teachers of English, math, science, and history.

The Value of the Arts

The arts, perhaps more than any other subject, help students to understand themselves and others, whether they lived in the past or are living in the present. President Bush recognizes this important contribution of the arts to every child's education. He has said, "From music and dance to painting and sculpting, the arts allow us to explore new worlds and to view life from another perspective." In addition, they "encourage individuals to sharpen their skills and abilities and to nurture their imagination and intellect."

A comprehensive arts education may encompass such areas as the history of the arts, the honing of critical analysis skills, the re-creation of classic as well as contemporary works of art, and the expression of students' ideas and feelings through the creation of their own works of art. In other words, students should have the opportunity to respond to, perform, and create in the arts.

Setting the Record Straight

There is much flexibility for states and local school districts under the *No Child Left Behind Act* with respect to support for the core subjects. In Arizona, for example, as part of Superintendent Tom Horne's current "content-rich curriculum" initiative, $4 million in Comprehensive School Reform (Title I, Part F) funds are supporting arts education at 43 current Comprehensive School Reform schools throughout the state. Additional Arizona Arts Education Initiative school sites are being supported with Title V (Innovative Programs) funding under NCLB.

Under NCLB, Title I, Part A funds also can be used by local education agencies to improve the educational achievement of disadvantaged students through the arts. In the same way, Title II Teacher Quality Enhancement Grants can address the professional development needs of teachers of the arts, and portions of Title II funds can support partnerships that include nonprofit, cultural-arts organizations.

The arts also can be an important part of learning and enrichment in programs supported by 21st Century Community Learning Centers program funds. Before- and after-school, weekend, and summer programs are excellent opportunities to stimulate students' artistic interests and foster their growth or to integrate arts learning with other subjects, including reading and math. Cultural partners in the community -- arts centers, symphonies, theatres, and the like -- can offer engaging venues as well as skilled instructors and mentors for students.

Various information about some of the publications available on arts education is enclosed. We are providing this information for your convenience, and you may want to share these resources with your state department or central office staff as well as with your administrators, principals, and teachers.

The Value-Added Benefits of the Arts

In keeping with NCLB's principle of classroom practices based on research evidence, studies have shown that arts teaching and learning can increase students' cognitive and social development. The arts can be a critical link for students in developing the crucial thinking skills and motivations they need to achieve at higher levels. *Critical Links: Learning in the Arts and Student Academic and Social Development*, a research compendium of the Arts Education Partnership, offers evidence of such links, including connections between arts learning and achievement in reading and math.

Based on a review of data from the National Educational Longitudinal Study (NELS: 88), University of California-Los Angeles researchers determined that students who were highly involved in arts instruction earned better grades and performed better on standardized tests. They also performed more community service, watched fewer hours of television, reported less boredom in school, and were less likely to drop out of school. These findings were also true for students from the lowest socioeconomic status quartile of the 25,000 students surveyed, belying the assumption that socioeconomic status, rather than arts engagement, contributes to such gains in academic achievement and social involvement. As mentioned in the enclosure, a summary of these and other findings in *Critical Links* can be accessed at the Arts Education Partnership's Web site at: <www.aep-arts.org/CLtoolkitpage.htm>.*

For both the important knowledge and skills they impart and the ways in which they help students to succeed in school and in life, the arts are an important part of a complete education. As we work together to implement NCLB, let's ensure that all children have the opportunity to learn and to grow in and through the arts.

Sincerely,

/s/

Rod Paige

Enclosure

Resources for Arts Education

U.S. Department of Education

Office of Innovation and Improvement (OII): The Education Department's Office of Innovation and Improvement, much like an entrepreneurial foundation, makes strategic investments in innovative educational practices through two dozen discretionary grant programs, including several arts-in-education programs. Among these is the Arts in Education Model Development and Dissemination program, which supports the development, documentation, evaluation, and dissemination of innovative, cohesive models that demonstrate effectiveness in:

- Integrating and strengthening arts into the core elementary and middle school curricula;
- Strengthening arts instruction in those grades; and
- Improving students' academic performance, including their skills in creating, performing, and responding to the arts.

For more information on the Arts in Education programs in OII, visit: <www.ed.gov/about/offices/list/oii/index.html>.

Opening Minds Through the Arts, an arts integration project in Tucson, Arizona, supported by OII's Arts in Education Model Development and Dissemination program, is featured in the January 26, 2004, issue of *The Education Innovator*, OII's e-mail newsletter at: <www.ed.gov/news/newsletters/innovator/index.html>. This project influenced the Arizona Department of Education's decision to support arts-in-education programs within the state's Comprehensive School Reform network, using Title I, Part F funds. The July 12 issue of *The Education Innovator* is to feature another of the Arts in Education Model program sites, in Hamilton, Ohio. To receive weekly *Education Innovator* issues, click on "Subscribe" in the masthead of the newsletter page above.

National Assessment of Educational Progress (NAEP): The National Assessment of Educational Progress (NAEP), also known as "the Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. Information from the 1997 *Nation's Report Card in the Arts* can be found at: <www.nces.ed.gov/nationsreportcard/arts>.

Arts Education Partnership (AEP)

The Arts Education Partnership is a national coalition of arts, education, business, philanthropic, and government organizations that demonstrates and promotes the essential role of the arts in the learning and development of every child and in the improvement of America's schools. The Partnership includes over 140 organizations that are national in scope and impact. It also includes state and local partnerships focused on influencing education policies and practices to promote quality arts education. Specific resources available from AEP include the following:

Critical Links: Learning in the Arts and Student Academic and Social Development is a research compendium that reviews 62 studies of arts learning in dance, drama, music, multiple arts, and visual arts. Interpretive essays examine the implications of the body of studies in each of these areas, and an overview essay explores the issue of the transfer of learning in the arts to other academic and social skills. A *Critical Links* Tool Kit is available at: <www.aep-arts.org/CLtoolkitpage.htm>.*

No Subject Left Behind: A Guide to Arts Education Opportunities in the 2001 NCLB Act is a guide for state and local arts and education leaders to learn more about the federal *No Child Left Behind Act* and the multiple opportunities for arts education. It provides a brief overview of the legislation, including where to find specific references to the arts, descriptions of individual programs with arts-specific examples that have received funding, and links to Web sites for additional information. *No Subject Left Behind* is available at: <http://aep-arts.org/PDF%20Files/NoSubjectLeftBehind.pdf>.*

Education Commission of the States (ECS)

ECS is an interstate compact created in 1965 to improve public education by facilitating the exchange of information, ideas, and experiences among state policymakers and education leaders. Recognizing the contributions the arts make to student achievement and economic development will be the focus of Arkansas Governor Mike Huckabee's tenure as the 2004-06 ECS chairman. The goal of his ECS Chairman's Initiative will be to "ensure that every child has the opportunity to participate in, learn about, and enjoy the arts." More information on the initiative will appear on the ECS Web site at: <www.ecs.org>.*

National Association of State Boards of Education (NASBE)

In 2003, a NASBE Study Group on the Lost Curriculum examined the status of curriculum in the nation's schools, particularly with regard to the arts and foreign languages. The Study Group concluded that a substantial body of research highlights the benefits of including the arts in the curriculum. Second, it concluded that the arts are "increasingly at risk of being lost as part of the core curriculum."

The group's report, *The Complete Curriculum: Ensuring a place for the arts and foreign languages in America's schools*, contains 10 recommendations for incorporating all core subject areas, including the arts, into the improvement strategies promoted by the *No Child Left Behind Act*. A recent issue of NASBE's *The State Education Standard* was devoted to the arts and contains a summary of the Study Group's report and its recommendations, along with informative articles on arts education. You may access articles from the journal issue and a summary of *The Complete Curriculum* report at: <www.nasbe.org/standard/index.html>.* Ordering information for the full report may be found on the NASBE Web site.

* This document contains contact addresses and Web sites for information created and maintained by other public and private organizations. This information is provided for the reader's convenience. The U.S. Department of Education does not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of information or addresses, or Web sites for particular items does not reflect their importance, nor is it intended to endorse any views expressed, or products or services offered.

The Education Commission of the States
Chairman's Initiative
The Arts – A Lifetime of Learning

Governor Mike Huckabee of Arkansas
2004-06 ECS Chairman

The Education Commission of the States (ECS) is pleased to announce the July 2004 launch of the Chairman's Initiative on Arts in Education. Governor Mike Huckabee of Arkansas will lead the initiative, *The Arts – A Lifetime of Learning*, commensurate with his two-year term as the 2004-06 ECS chairman. Governor Huckabee is the 41st governor to serve in this prestigious position and the first to focus his initiative on the arts in education.

The goal of the **ECS Chairman's Initiative on Arts in Education** is to ensure every child has the opportunity to *learn about, enjoy* and *participate directly in* the arts. These three experiences together represent what is meant by the term "arts in education." Toward that end, state leaders have a responsibility to make – and keep – the arts strong in our schools.

The focus of the initiative stems from more than an appreciation of "arts for arts' sake." As important as that value is – and indeed it is very important – there also is compelling evidence that shows student involvement with the arts can make a significant difference in improving educational outcomes for *all* kids – in terms of their academic achievement, their engagement in learning, and their social and civic development.

State policymakers play a critical role in helping to realize this goal. They have the ability to raise public awareness about the importance of arts in education, call for better state-level information upon which to base decisions and demonstrate leadership through their own actions.

Under Governor Huckabee's leadership, the initiative will work with ECS' core constituency of state policymakers in furthering these efforts and provide them with the means to do the following:

- **Learn** what the latest evidence-based research says about the educational, economic and social benefits of student involvement with the arts, and the implications for state policy and practice
- **See** how their state compares in a 50-state "ArtScan" of current state policies, programs and statistics compiled and presented in one easy-to-use searchable online format
- **Find** which state policies and practices are successful in keeping the arts strong in schools and, more important, *why* they are working based on actual results
- **Share** strategies for implementation with other state and local education, business and policy leaders.

The ECS Chairman's Initiative on Arts in Education also will undertake a number of other activities, events and publications in partnership with ECS constituents, arts organizations, and state and local community leaders. It will seek to ensure high-quality experiences for arts education are available not just to the gifted or the most fortunate, but to every child from pre-kindergarten through grade 12.

Integrating the arts into education and school life benefits not only students. Ultimately, it contributes to a stronger, more innovative economy and a better quality of life for all.

For More Information: Visit the ECS Chairman's Page at http://www.ecs.org/Huckabee or contact Sandra Ruppert, ECS senior policy analyst and program director at 303.299.3691 or at sruppert@ecs.org.

Update from the Office of Superintendent of Public Instruction
by
AnnRené Joseph, Program Supervisor, The Arts
Curriculum, Instruction, Assessment

"Our lives and all of life is an artwork in progress." ARJ

State Mandate—All 296 school districts will provide comprehensive, sequential, standards-based K-12 arts programs in dance, music, theatre, and visual arts for all students. Instruction offered by certified instructors. Access to that instruction by all learners. Assess that instruction has occurred and learning has happened—2008-09; HB 2195

My Job—Three key areas of support to you 24/7 -Advocacy, Visionary Leadership; and Action. I provide information, support, encouragement, celebration, advocacy, and vision. My leadership style is to listen, learn, and lead. I am a student of stewardship/servant leadership/philosophy. ajoseph@ospi.wednet.edu
360-725-6365, www.k12.wa.us/curriculumInstruct/arts
Dream—Best in the nation for providing quality arts instruction through certified arts instructors. National and state teams—Leadership
Staff Development—Washington Educational Research Association (WERA); OSPI January Conference—January 19-20, 2005, Seattle; ArtsTime 2005—March 11-12, 2005, Foster HS, Tukwila; OSPI Summer Institutes 2005—Arts Assessment Training
SEADAE—State Education Agencies Directors of Arts Education—National Task Force Governor's Initiative—State Education Agency Initiative—National Arts Renaissance; Presentation—National Dance Educators' Organization (NDEO)—Dance Educators' Association of Washington (DEAW)—Dance is "core" in Washington State; Music Educators' National Conference (MENC)—(Star Spangled Banner)
Points for OSPI Arts Education Goals and Leadership—Our Dreams—Hopes—Plans

- **Arts Education High School Graduation Requirement:** 2004 WAC 180-51-061
- **Arts Education Focus:** Dance, Music, Theatre, and Visual Arts are core subject areas in Washington State—NCLB/ESEA. Working with all arts organizations individually and as a team—WMEA, DEAW, WATE, WAEA, WAAE, WSAC, WABS, VSA Arts of WA, ATIF, ArtsTime, etc.
- **Arts Coordinators/Directors** in all 296 school districts—staffing, scheduling, support, vision, more arts educators as district/building administrators.
- **Federal and State Law for Arts Education** as essential, core, a "basic need."
- **Assessment Development and Implementation:** Pilots and training, 2003-2005; 2005-06 statewide training. We need funding from Legislature for next biennium.
- **EALRs—Frameworks—GLEs:** Nov. 2001—Posting and implementation of Arts Frameworks; June-Oct. 2003—Complete Grades 7, 9, 11 with AFT; 2004-05—Review/posting Grades 7, 9, 11; 2006-07—Development of GLEs; 2007-09—Internal/external development and review of Arts GLEs. We will revise our current frameworks into GLEs.
- **Quality Staff Development:** Personal presentations, conferences, team presentations, attendance at events, adjudication, clinics, festivals, etc.
- **Superintendent of Public Instruction, Dr. Terry Bergeson's Quote and Support of Arts Education:** *"We must continue to find a place for arts programs and partnerships not only for what it teaches students about art, but for what it teaches us all about the world we live in."*

THE CHANGING ROLES OF ARTS LEADERSHIP

Bonnie Rushlow, editor. The role and expectations of the arts supervisor and administrator have expanded beyond managing personnel and programmatic activities to informing policy decisions. Legislation such as The No Child Left Behind Act exacerbated this paradigm shift. Thus, the role of arts supervisors and administrators as leaders of change has become more critical than ever. The authors understand the implications of this shift and the resulting changes in the responsibilities and expectations for effective arts administration.

Section I provides a historical articulation of the changing demands on arts administrators and their attributes. Section II suggests venues for informing policy decisions—a quality that differentiates the requirements and expectations of today's art supervisors and administrators from those in the past. Section III highlights the need for arts supervisors and administrators to have 1) an acuity for informing local policy decisions; 2) a proclivity for understanding the implications for national policy for local arts education programs; and 3) an understanding of research-based arts education reform to move the field forward.

Chapters include: Influencing Public Perceptions, Developing a Culture for Arts Leadership, Rethinking Candidate Supervision in Pre-Service Teacher Education: Forging Collaborative Partnerships, Mapping a Data-Informed Path to Change: Select Research Findings, and Their Implications for Art Education Leaders, No Child Left Behind in Art? and more.

Order No. 225
The Changing Roles of Arts Leadership
212 pages (2005) ISBN 1-890160-29-6
$25.00; Members $20.00

ORDER INFORMATION: Payment must accompany order. Shipping and Handling: Canadian add 25%; foreign add 40% shipping. Virginia residents add 5% sales tax. U.S. shipping/handling: up to $10.00 — $3.00; $10.01 - $20.00 — $4.00; $20.01 - $35.00 — $5.00; $35.01 - $70.00 — $6.00; over $70.00 — $8.00. PREPAID ORDERS: All orders under $75 must include payment. All orders from bookstores must be prepaid. NO RETURNS will be accepted unless order was damaged or incorrectly filled. ALL CLAIMS must be made in writing within 30 days of delivery. INVOICED ORDERS: Orders over $75 may be invoiced and must be accompanied by a purchase order. Mail to: National Art Education Association, 1916 Association Drive, Reston, VA 20191-1590. FAX/PHONE ORDERS using Visa and MasterCard may
be faxed to 703-860-2960 or by toll free phone to 800-299-8321 (8:30am to 4pm EST). WEB ORDER FORMS: www.naea-reston.org/publications.

ArtsEd WASHINGTON
WASHINGTON ALLIANCE FOR ARTS EDUCATION
158 Thomas Street / Suite 16/ Seattle, Wa 98109

Principals Arts Leadership Initiative
Project Outline

- State and federal law includes the arts as part of the core curriculum for our schools.
- OSPI is developing the classroom arts assessments mandated by House Bill 2195.
- These assessments will be ready for voluntary use by 2005-06, with participation required by 2008-09.
- These performance-based assessments will allow students to creatively demonstrate their knowledge of arts skills and concepts.
- They are constructed in a way that every child can succeed, provided they have actually received instruction in visual art, theater, dance and music.

HOW CAN WE HELP OUR SCHOOLS BE READY?

When Dick Deasy of the Arts Education Partnership (a national coalition of arts, education, business, philanthropic and government organizations that demonstrate and promote the essential role of the arts) visited Washington State in 2003, he said leadership development among school principals was one of the most crucial tasks we faced nation-wide. A successful arts education program depends on many people – talented teachers, resourceful parents, dedicated artists. But it is the principal, in the role of instructional leader, who creates a school climate in which every child soars in arts learning or who marginalizes arts instruction. So, for its first new initiative, ArtsEd Washington is focusing on principals.

- The Principals Arts Leadership Initiative will support and inform 13 elementary school principals from 9 school districts as they lead their school communities in implementing arts education as part of the curriculum.
- It will create a growing network of Washington State elementary principals supporting each other to enhance arts education in their school communities.
- This pilot will allows us to develop, test and document a model for elementary school principal leadership in the arts.
- **ArtsEd Washington** will develop a "Resource headquarters" that gathers, collates and disseminates information about the many arts education resources available across the state.

For more information, Una McAlinden, Executive Director 206 441 4501 | una@artsedwashington.org

***ArtsEd Washington** has designed this Initiative with input and support from **Jonelle Adams**, Washington Alliance for Better Schools and **AnnRene Joseph**, Arts Program Supervisor, OSPI, **Carolyn Gellermann**, adjunct Faculty at University of Washington's Danforth Educational Leadership Program and **Barbara Shepherd**, Director of National Partnerships - Education, The Kennedy Center.*

This project is made possible by generous funding from The Boeing Company, 4Culture, The Kennedy Center and Washington Mutual and with support from Seattle Art Museum.

Appendix E: Consent Form

ANTIOCH UNIVERSITY

CONSENT FORM

I_____agree to participate in the research study entitled:

Integrating Pedagogies and Learning Approaches from the Arts with Other Academic Disciplines to Enhance Learning conducted by Diane Solvang-Angell, Center for Programs in Education, Antioch University Seattle, (206) 441-5352 ext. 5600.

I understand that this participation is entirely voluntary. I can withdraw my consent at any time without penalty and have the results of the participation, to the extent that it can be identified as referring to me or others in whose behalf I have given consent, returned to me, removed from the research records, or destroyed.

The following points have been explained to me:

1) The purpose of the research.
(See reverse.)

2) The design of the study and the amount of time I might contribute to this research.
(See reverse.)

3) No unusual discomforts, stresses, or risks are foreseen to result from participating in this research.

4) The results of this participation will be confidential, and will not be released in any individually identifiable form without my prior consent, unless otherwise required by law.

5) The investigator will answer any further questions about the research, now or during the course of the project.

6) A copy of the results of the study will be made available to me if I wish.

7) The research may be used in presentations or publication, keeping participants anonymous.

_____ _____

Signature of Investigator Date Signature of Participant Date

PLEASE SIGN BOTH COPIES OF THIS FORM. KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR.

Research in the Center for Programs in Education at Antioch University which involves human participants is carried out under the oversight of the Education Center Research Review Committee as authorized by the Antioch University Faculty Assembly and Office of the Academic Dean. Questions or problems regarding these activities should be addressed to the Director of Center for Programs in Education, Antioch University, 2326 Sixth Avenue, Seattle, WA 98121.

1) The purpose of the research:

Recent studies show that combining pedagogies and learning approaches from the arts with traditional academic subjects such as math, sciences, language arts, social studies, etc. can boost academic performance. Studies have also shown that arts-based approaches not only engage students in important cognitive, affective, and psychomotor learning but they can also promote cultural enrichment and awareness. I have experienced this phenomenon in my own learning and teaching and would like to explore this further.

In this study I will examine the teaching that is done in non-traditional educational programs, such as niche or alternative schools, and the learning that is fostered. I believe that in these educational settings, in which curriculum experimentation is often being done in order to meet multiple learning objectives, I will find examples of integrative learning models.

In an alternative curriculum, cognitive learning is combined with the deep caring and personalization of affective learning. It is done in order to reach students for whom mainstream pedagogies have failed. These students struggle with conventional learning methods. Some come to alternative education in need of remedial help, others are brilliant and bored with school. The measurable academic success these students achieve in true alternative learning environments is impressive. The results of national test scores and later success on the university level show them to be above average and in some cases, well above average. These impressive results demonstrate that effective learning is taking place in these schools. I believe that within these environments may exist models of integrative learning that draw from the arts in ways that might benefit students and teachers in other classroom settings.

Therefore, the purpose of this research is to explore the teaching in several different alternative education classrooms and to clarify and understand the uses of integrative learning in which pedagogical approaches from the arts are consciously or unconsciously blended. I will look for aspects of cognitive learning in both arts and non arts disciplines that may be helpful integrating factors. I will also be interested in the artistic/aesthetic dimensions and outcomes of integrating pedagogies.

2) The design of the study and the amount of time I might contribute to this research:

This study seeks to discover how integrative learning is manifested in alternative classrooms. Additionally, I would like to better understand alternative education teachers' awareness of integrative learning models and theories, their learning objectives, and how their pedagogies compare and contrast with integrative learning models found in the literature. I will also seek to discover the degree to which these teachers combine the arts with non-art subjects in their classrooms and what kind of results they feel they are achieving. Semi-structured interviews will be my primary data collection method. Alternative education teachers and administrators will be my participants. If possible I will also do some targeted classroom observations as a supplement to the interviews. I will also ask my participants for examples of curriculum materials where appropriate.

I plan to conduct two interviews with the teachers with whom I am able to also conduct a classroom observation. In these cases, I plan to conduct one interview before and one after the observation. I plan to have six teachers, three administrators, and three consultants in total. Each interview will last no more than 45 minutes. I would like to start my data collection as soon as possible and conclude if possible by the end of Spring Quarter (this quarter), 2005. I will transcribe interviews and observation journal entries. Using constant-comparative analysis, I will code transcripts for important themes, and I will utilize those themes in my examination of documents.