

California Association of Independent Schools
Faculty Newsletter | Fall 2003

FROM
LITTLE
ACORNS . . .



INSIDE:

Arts and Academics - A False Dichotomy

Adding Fractions: An Experiment in Constructivism

Getting Out There: Fourth Grade Meets World

...and more

Reuniting the arts
with academics
develops
the whole human
and restores
“academic”
to its
original meaning



Arts and Academics: A False Dichotomy

by Doug Goodkin

Art Instructor

The San Francisco School

goodkindg@aol.com

SCHOOL VISITORS DROP INTO A CLASS WHERE MIDDLE SCHOOL students are making musical instruments. In the next room, they are rehearsing a play. In yet another, they are inventing their own land and drawing a fanciful map. Down the way, 5th graders are memorizing and reciting the bones of the body. 8th graders are discussing the slave trade. 3rd graders are graphing symmetrical and asymmetrical patterns while 4th graders are reciting a poem, discussing its meaning and analyzing its structure.

Reading this, one might imagine that this is a school that includes music, art and drama in its curriculum, as well as the conventional science, history, language arts and math. What might come as a surprise is that the children making musical instruments were in science class studying acoustics. The ones rehearsing the play were in Spanish class. The artistic and imaginative cartographers were studying geography. The 5th graders reciting bones were in art class. The 8th graders discussing slavery, the 3rd graders graphing patterns and 4th graders analyzing poetry were all in music class.

This indeed is a school that values so-called art and academics, but it is also a school that does not draw a line between them. Or rather, draws an artistic curving line with shading and dynamic energy. For here the arts *are* academics and academics *are* artful.

This idea stretches back as far as the very root of the word “academic”— to Plato’s “Akademeia,” the place where the sciences and arts were formally taught. Note: sciences *and* arts. Subsequent schools were often called “academies” and the subjects taught within them, “academics”— and in the medieval schools through the Renaissance through the Boston public schools in the 1840’s to my own public schooling in 1950’s New Jersey, the arts held their place in the curriculum. Given this background, why do even the most well meaning teachers and parents set arts and academics apart?

The arts are academics, not only because Plato says so, but also because every note sung and played well, every brush stroke well executed, every Shakespeare line delivered with conviction requires a thorough body



of knowledge to back it up and move it forward. For a subject to qualify as “academic,” it must possess a tangible body of knowledge accessible to systematic procedures, investigations and development. It must be receptive to formal instruction, must have its own vocabulary, its own peculiar concepts, relationships and techniques. The arts—all of them—qualify for inclusion in the academic family. Let anyone who doubts it discuss kinesiology with a dancer, double fugues with a composer or symmetry with a sculptor.

If it is a new thought to some that the arts are academic, it may be equally surprising to consider the reverse—academics are artful. The business of school is understanding and a deep understanding requires an artful approach. To truly understand how things work—procedures, operations, ideas, systems—the student must stand under them, must go below the surface and examine them from all angles. This is best served by an artistic approach—not only ingesting information, analyzing and reflecting, but also working with the hand, opening the heart, exercising the intuition, awakening the imagination, playfully exploring and diligently working to create something new.

The students who succeed in school are those who can perceive pattern—can see the patterned relationships in math, hear the patterned sounds, rhythms and cadences of language, notice the patterned themes in stories (“someone has been eating my porridge.” “Someone has been eating *my* porridge.” “Someone has been eating *my* porridge—and she ate it all up!”), make connections with the patterns of history (unlike some current politicians!) As learning specialist Mel Levine says, “The best way to per-

ceive and understand patterns is to *make* patterns,” affirming that creativity is not a frill to the side of learning facts and skills, but is an essential strategy for deep understanding *in every subject*. In fact, creativity is the highest level of cognition.

The eyes through which we see and understand are the “i’s” through which we think—intellect, intuition

form pictures from the external objects... it is not a thought that emerges in the child but an image, an imaginative picture. ...Our teaching and education is to be built, then, on imagination.

Yet, Joseph Chilton Pearce has observed that children often can’t develop their own imagery because they are saturated with pre-programmed images from the media.

“Limiting creativity
to the traditional arts
and limiting critical thought
and analysis
to traditional academics
harms both.”

and imagination. Every artist is conversant with all three, but what is less understood is that every good scientist is as well. Schools tend to highlight the intellect and downplay its companions, but great thinkers themselves are well aware of the need for all three. Albert Einstein, for instance, noted, “Imagination is more important than knowledge.” Imagination is not just idle day-dreaming or frivolous fantasy—it is a building block of thought. Rudolf Steiner observed that:

The sense organs do not think; they perceive pictures, or rather, they

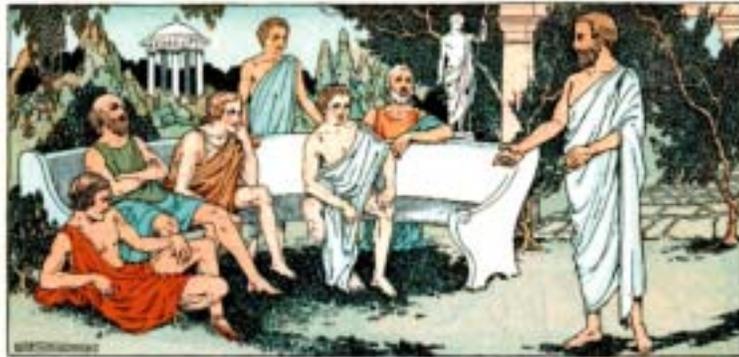
He warns that this interferes with their capacity to think. This means children who can’t “see” what the mathematical symbol or the semantic words mean; or the chemical formula, or the concept of civilization, as we know it, can’t comprehend the subtleties of our Constitution or Bill of Rights, and are seriously bored by abstractions of this sort.

Intuition is tied to images and abstract thought, but is also connected to the body, to building understanding through the hand and the senses (both fundamental Montessori tenets). Einstein, again, speaks of imagination and intuition:

The theory of relativity occurred to me by intuition and music was the driving force behind this intuition. My discovery was the result of musical perception.

When Nobel Prize winner Barbara McClintock was asked “How do you do great science?” she replied, “About the only thing I can tell you about the doing of science is that you somehow have to get a feeling for the organism.” Apparently not satisfied, the interviewer repeated the question. McClintock, who

Yet, if we denigrate the intellect, we will have only swung over to another kind of one-sided thinking. Academics without sufficient creative participation are flat and one-dimensional. Without sufficient conceptual thinking, the arts cannot express themselves fully. If knowledge alone is impotent to make the connections necessary to ask the next question, so are imagination and intuition unable to fully realize their promise without firm facts and systematic procedure. Limiting creativity to the traditional



worked with ears of corn in studying genetic transposition, persisted: “Really, all I can tell you about doing great science is that you somehow have to learn to lean into the kernel.”

McClintock, Einstein, Steiner, Pearce, Levine and others are suggesting something radical here—that not only are imagination and intuition important to abstract thought, but are its very foundation, the very stuff that builds it. This doesn’t mean that we shouldn’t learn our times tables, grammar rules or history dates. It simply puts facts, rules, concrete operations and technical exercises in their proper context—in service of the inquisitive mind actively seeking the next revelation. In a healthy mind, imagination, intuition and intellect are not competing against each other, but are in constant conversation.

arts and critical thought and analysis to the traditional academics harms both. The move to restore academics to its original purpose—to develop the whole human being through the vehicles of art, language and science—begins by refusing to reduce arts and academics to definitions that exclude and compete.

Visceral responses and “leaning into kernels” require the body to enter the thinking and the senses to open. When the hand thinks and the senses feel, the heart and aesthetic enjoyment are not far behind, and when *every* so-called subject is experienced imaginatively, intuitively, intellectually—and aesthetically, kinesiologically and emotionally as well—we will have come closer to nourishing the immense promise of the child. Here at The San Francisco School, I believe we are doing just that.

“Every
note sung,
every
brush stroke
well executed,
every Shakespeare line
delivered with
conviction
requires a thorough
body of
knowledge
to back it up.”