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Why teach the arts? Art inspires learning

Math and science may boost economic competitiveness, but art completes our education.

By David Arzouman

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When American presidents talk about education, they inevitably stress the need to focus on math and science. In a technological world, they say, math and science ultimately equate with economic competitiveness. This line of thinking may be smart politics, but it makes education merely the means to an economic end.

President Obama is no exception to this tendency. But as a candidate, he also routinely noted the importance of the arts, as does Education Secretary Arne Duncan. It is fair then to ask what art actually offers.

Science emphasizes quantities. Art emphasizes qualities. Their mix, although paradoxical, moves us closer to completeness. We express such paradox in ideals like the student-athlete, warrior-poet, compassionate-conservative, even "wise as serpents, and gentle as doves."

The arts offer both a key educational component and the unique experience of handling each stage of a project – coordinating hand, eye, and mind – from inspiration to finishing touches. In contrast, business realities necessitate specialization.

Schools also practice specialization, both in the estrangement of various studies and by progressively narrowing the focus. Perhaps because expertise pays, it is not generally the case that the "higher" people go in education, the broader, more interconnected, integrated, and holistic becomes their vision.

If the arts provide an alternative metaphor applicable to education, it is that elements must balance and synergize. The attractive color, "catchy" musical passage, or favorite rhyme that doesn't fit only weakens the work. With synergy, grayed colors combine into brilliant paintings, just as in sports a coordinated team beats an unsupported superstar.

We arrive at a dilemma. In groups, individuals play roles and specialize; completeness arises from the coordinated activity spanning the group. But if education's defining goal is only preparing students for those roles, it suffers for balance.

So where is the education model that not only emphasizes balance, but also explores the parallels and connections across disciplines?

One example is the quadrivium – arithmetic, geometry, music, astronomy – a model that reaches back to Pythagoras. Consider its strengths. Arithmetic explains the relations between numbers. Geometry explains numbers in space; music, numbers in time; and astronomy, numbers in space and time. It was a vision of correspondences conducive to analogic thinking.

Our wiser cultural ancestors considered geometry more than an engineering tool and music more than mere entertainment. They were key, parallel studies, manifestations of numbers, which were therefore seen as embodying both quantity and quality, a clue to the complementary unity of science and art. Segregating the two, and regarding only one as essential, is a costly disintegration, expressing a quantitative bias necessary for technological expediency.

Admittedly, art is peripheral to making microchips or jumbo jets. But it's important to distinguish what our technology gets us, and what it doesn't. The technological gap between a smart bomb and a spear is vast. But the gap in intent can be imperceptible. Cable television, cellphones, and computers don't ensure a more meaningful quality of discourse, only faster and more far-reaching. While our means far outrun anything from the past, our purpose and moral intent struggle to keep pace.

So, yes, education is vital to everything. But it requires an element of inspiration, and inspiration rides on metaphor, correspondences, and relating, the surprising and far-reaching connections that put the world back together, that elicit the "aha" response. This is precluded by over-specialization, but it just happens to be the work of art, whose root meaning is "to fit or join together."

Thinking outside the box of each school department would be edifying. A math lesson might include rhythmic examples, or ratios also experienced as musical intervals. A geometry lesson could show how the master painters once ordered their compositions on geometric underpinnings.

Reopening these pathways would not bypass the traditional curriculum, but simply inspire the artist inside each student, longing to see the big picture. Unforeseen social benefits would surely follow.

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