

A World of News and Perspective



The Washington Diplomat

November 2008

- HOME
- AMBASSADORS
- APPOINTMENTS
- WORLD HOLIDAYS
- PAST ISSUES
- ABOUT
- CLASSIFIEDS
- FEEDBACK

SUBSCRIPTIONS ADVERTISING STAFF RESOURCES



Dandy Restaurant Cruise Ships
 Gourmet Dining, Dancing, and an Unparalleled View of our Nation's Majestic Monuments.® Day or Night. Rain or Shine.®

Print Page Email Page

Join our e-list
 for the latest
 monthly
 diplomatic news

your email

[Join](#)

Washington Diplomat
 P.O. Box 1345
 Silver Spring, MD 20915
 Tel: 301.933.3552
 Fax: 301.949.0065

BRAND NEW
STUDIO, 1, 2, &
3-BEDROOM
APARTMENT
HOMES
 THE WOODWARD BUILDING

JOHNS HOPKINS
 Institute
 for Policy
 Studies

Training the
 leaders...
 of
 tomorrow.

Education Special Section

Arts Smart

Educators Look at Cognitive Benefits of Arts Programs

by Carolyn Cosmos

The debate over the effectiveness of "Baby Einstein" videos and the "Mozart effect" — trying to make young children smarter through brain games, teaching videos, and hours of exposure to classical music — has been roiling parents and teachers alike for the past decade. These tools — or rather toys in some cases — have been both fervently supported and just as fervently opposed. One Stanford University headline blared: "Discredited Mozart Effect Remains Music to American Ears."

So what's the truth? Can the arts make you smart? To find out, let's start at an art museum. On Saturday mornings during the school year, about 20 teens from Maryland, Virginia and D.C. make their way to a class at the National Gallery of Art in downtown Washington. Students in this blandly titled "high school seminar" are usually a diverse lot, according to Elisa Patterson, the gallery's coordinator for high school programs. Some dress in casual clothes, while others come donning purple hair and painted jeans. Almost all of them though already identify themselves as artists.

They arrive from public and private schools, large and small, spanning the suburbs to the inner city. Admission is competitive and only one student per school can be accepted, so these represent the winners.

Even so, many tend to be shy at first. Perhaps it's the austere galleries and eminent artwork. Perhaps it's their own backgrounds as, in some cases, outsiders. "They may be an anomaly at their own schools," Patterson said.

So she and her fellow instructors work to create a community. "We have our own tables reserved for us at lunch," Patterson noted. And as the lessons unfold and students present their own artwork, these young artists seem to unfold as well. "Parents tell us students gain confidence. It's great to see them grow."

One surprising reason for this success is neuroscience research. Patterson and her colleagues, like an increasing number of arts educators nationwide, are incorporating lessons from cognitive science into their classrooms to connect the arts with learning in general.

For instance, Patterson's National Gallery seminar, which covers art history and potential museum careers, is designed to engage students so that they arrive at answers themselves — thereby also teaching them the art of deductive reasoning.

"A lot of what the students do is of their choosing. We use strategies that facilitate an ability to think critically and experience new ideas," Patterson explained.

So if a student chooses a Renaissance portrait to research, the teen will be

DIPLOMATIC POUCH

a bimonthly
 e-mail news
 column

FREE
 Subscription

PRODUCED BY

asked to compare it to a contemporary artwork and vice versa, and then present their findings to fellow students.

Another teaching strategy addresses perception. "Really seeing a work of art is much harder than you might think," Patterson said. So they developed an exercise called "I see, I think, I wonder," in which students take a few minutes to look at a piece of art and quickly jot down their first impressions. Then they're given more time to ponder the artwork, writing down and later discussing their thoughts. "They arrive at things themselves," Patterson said.

Cognitive Crossover

Responding to the controversy over the "Mozart effect," several Harvard researchers in the mid-1990s looked at existing education research to examine the impact that the arts had on specific learning skills.

Among their many findings, published in 2000, was limited confirmation of the "Mozart effect," along with evidence that children trained in playing music also showed improvements in spatial thinking. Critics cautioned though that such links, or correlations, cannot prove cause and effect because they could be accidental or the result of other factors.

But other suggestive links did turn up between music and math, drama and verbal skills, and dance and certain reasoning skills. And yes, they did find that students with arts training did better in their other school subjects — but maybe bright kids just like to paint and make music. Who was to say?

Five years later, the Dana Foundation — which studies brain science, immunology and arts education — tried to clarify the issue. Inspired by new findings and advanced imaging tools that let us peer directly into the brain, the foundation brought together a group of neuroscientists from seven universities to explore the effects of visual art, music, dance and drama on learning.

The results of the Dana Consortium Report on Arts and Cognition, released in 2008, confirmed in part what the 2000 study group had said, although it also supported the skeptics because there was still no definitive proof of cause and effect between arts learning and academic learning. "We're working on it," some of the scientists simply said.

One consortium finding though did turn up a strong connection between music and reading. For four years, Brian Wandell and his group at Stanford University compared children who received arts training with those who hadn't, uncovering a "strong correlation" between music training and better reading skills exhibited in school.

People think reading is entirely visual, but it's actually based on the child's ability to hear the sounds of speech, Wandell said in the Dana Foundation report. His team is now trying to prove that "music training in early years helps you hear sounds better."

Similarly, neuropsychologist Elizabeth Spelke of Harvard University looked how arts training might affect spatial thinking. She found that teenagers in art schools who practiced music 20 hours a week were better at geometric reasoning than students with training in other arts disciplines or no arts training at all. There were some signs, however, that the visual arts also had a positive effect on students, but geometric skill levels clearly correlated with the amount of music training a student had.

Despite these discoveries suggesting the potential advantages of music, "there isn't anything to suggest that exposing very young children to formal music training is of benefit," Spelke cautioned in the Dana report, noting that the ideal time to start formal music lessons for children is in early grade school. But she added that young children tend to acquire the basic skills they need when adults play games with them or sing to them, and everyone is having fun together.

[Next Page](#)



The Washington Diplomat

November 2008

- HOME
- AMBASSADORS
- APPOINTMENTS
- WORLD HOLIDAYS
- PAST ISSUES
- ABOUT
- CLASSIFIEDS
- FEEDBACK

Washington Diplomat
 P.O. Box 1345
 Silver Spring, MD 20915
 Tel: 301.933.3552
 Fax: 301.949.0065

BRAND NEW STUDIO, 1, 2, & 3-BEDROOM APARTMENT HOMES
 THE WOODWARD BUILDING

Do You Have A Passion For Cooking?
 Classes for all interests and skill levels
 www.lacademie.com
 301-670-8670

L'Academie de Cuisine
 The National Center for Culinary Education

- SUBSCRIPTIONS
- ADVERTISING
- STAFF
- RESOURCES



Dandy Restaurant Cruise Ships

Gourmet Dining, Dancing, and an Unparalleled View of our Nation's Majestic Monuments.® Day or Night. Rain or Shine.®

Print Page Email Page

Join our e-list for the latest monthly diplomatic news

[Join](#)

DIPLOMATIC POUCH

a bimonthly e-mail news column

FREE Subscription

PRODUCED BY
 The Washington Diplomat

Besides music, what possible benefits do other art forms have on young minds? Dana Consortium researchers Scott Grafton and Emily Cross at the University of California in Santa Barbara found that students who merely observed dancing learned movement skills almost as much as actual practice. In addition to teaching movement, dance may well spill over into other skill areas such as reasoning function.

In fact, the arts in general may offer a cognitive boost — as humanities mavens have been telling us all along. One of the most exciting and useful Dana Consortium findings tracked persistence and motivation. Michael Posner at the University of Oregon discovered that attention training in children, keeping them focused on one set of tasks, also developed their general ability to focus, which carries over to other areas in their lives.

Thus, any arts medium that can capture a child's interest can in turn motivate them to focus, Posner said in the Dana report. "If the child is interested in a particular art form, their attention can be trained by that art form," he said. "We concluded that if we tailored the arts education to the individual interest of the child, we could produce a highly motivated child who would sustain attention over long periods of time."

Meanwhile, at the National Gallery of Art, Patterson has conducted her own study looking at the practical effects of their teen arts program. "We found it positively affected their artistic and social development," she said of surveying students in past high school seminars. Specifically, Patterson said the arts development training gave teens confidence in public speaking and enabled them to be more open-minded about other views.

The program also influenced the parents, she added, with some relieved to realize that there are many career options in which a creative person can make a living and that they weren't necessarily raising a future "starving artist."

A Neuroscientist's Perspective

What Patterson and her colleagues are doing at the National Gallery is "wonderful," said Mary Helen Immordino-Yang, a Harvard-trained cognitive neuroscientist, educational psychologist and professor at the University of Southern California. Immordino-Yang is also a former middle school teacher and parent who gives workshops to educators on brain science. Her own research looks at the intertwining of emotion and learning, an interlock she believes is an ancient mechanism for human survival.

Hearing a description of the National Gallery of Art's high school seminars, she praised the program's learning strategies for creating a "scaffolding of the student's own values and emotions, helping kids make meaning out of what they see, both cognitive meaning and emotional meaning." Bringing the two together motivates further learning, as does a positive social environment, she noted.

Immordino-Yang told The Washington Diplomat that the notion of emotions getting in the way of clear thinking is a myth. She cited studies showing that

brain-damaged or psychopathic people who lack emotion have poor decision-making and analytic skills as a result. Good thinking, responsible decision-making and classroom learning have a "necessary emotional component," she argues.

As an example, Immordino-Yang recalled an Ohio teacher who had given up on her middle school violin class of bored and un-cooperative students. Nothing seemed to work until Immordino-Yang and the teacher developed a new approach whereby each student would pantomime a situation from his or her life, without any words, while a friend in the class would translate that experience by playing violin music.

"It's working," Immordino-Yang said. "They're using the violins in a way that has emotional meaning to them and they're learning from other students."

As another example, Immordino-Yang explained how her 6-year-old daughter wanted to learn a piano piece for her grandparents' upcoming visit, "but it was too hard for her and she was frustrated. Suddenly she said, 'Why don't I make flashcards to learn the notes?' — something I never would have suggested. She designed the cards, we made them together, and she drilled herself on the notes. My role as parent was to be enthusiastic and help her reach her goal."

Immordino-Yang advises that all parents help their children actively engage with the world around them and discover things on their own, following their interests instead of your own. Also, parents should model behaviors for children, including enthusiasm for learning, and help them reflect on their experience by simply asking them about it.

So what about the Mozart effect, which wasn't necessarily shown to be all that effective? "The original research itself was fine, but it was limited and done with college students. It showed that exposure to certain Mozart pieces heightened specific cognitive skills for 20 minutes," Immordino-Yang said. "It's a fallacy to expand beyond that. It had nothing to do with infants."

The most unfortunate Mozart effect, according to Immordino-Yang, is that it encouraged parents to buy toys that promoted passivity over play. "Children need to actively engage with the world to learn. Playing with sticks in the dirt is better than watching a CD or listening to a toy that talks. The more a toy does for a child, the less helpful it is for that child's development."

Carolyn Cosmos is a contributing writer for The Washington Diplomat.

Resources

National Gallery of Art – In addition to high school seminars, the National Gallery of Art offers one-time workshops for groups of middle and high school students in which they can explore a single topic, with this year's topic focusing on the exhibition "Pompeii and the Roman Villa: Art and Culture around the Bay of Naples."

There are also separate "teen studios" — free five-hour Saturday workshops with different themes — for students in grades 9 through 12, which includes a gallery visit, art instruction and studio time. Other education offerings include teacher workshops and school tours, including customized tours that the gallery will design with advance notice. For more information, visit www.nga.gov/education/.

Lawrence Academy – More information about Mary Helen Immordino-Yang's summer workshops for teachers and administrators, held in Massachusetts, can be found at the Lawrence Academy's Web site: www.lacademy.edu.

Dana Consortium Report on Arts and Cognition – The complete Dana Consortium Report on Arts and Cognition can be found at www.dana.org.

Masters in Diplomacy

Earn a Masters in Diplomacy Online at
Norwich University.
www.Norwich.Edu/Diplomacy

HCG Weight Loss Experts

2008 Version of Dr Simeons Protocol Call
NOW for New Year Resolutions
www.HCGmedical.com

TurboTax Official Site

Use TurboTax Free Fed Edition '08.
Maximum Refund Guarantee! Now Free.
www.turbotax.com