Synopsis **of Arts Education Research**

Studies are piling up that show both the intrinsic value of arts education, its impact on academic learning and the positive effects that employment in the arts has in the economy.

As arts educatiors, we must continue to share the case for arts education and bring the proof of its value to others daily.

Ways of discussing the value of arts education:

1

Emphasize the impact arts education is having on overall K-12 academic achievement and preparation for postsecondary education.

2

Refute the common perception that "you can't make a living as an artist," which leads to an obvious and, to us, dangerous corollary: Why teach the arts?

"A culture populated by a people whose imagination is impoverished has a static future. In such a culture there will be little change because there will be little sense of possibility."

—Elliot Eisner, Lee Jacks Professor of Education and professor of art, Stanford University

Arts education and academic achievement

Studies continue to draw a reliable connection between arts education and engaged, successful students.

Literacy and language development:

Arts learning in music, drama, media arts and spoken word relates to high achievement in reading and writing and high verbal SAT scores. (1) Music training relates to stronger performances in learning a second language with greater improvement in expressive fluency and competency. (2)

Mathematics achievement:

Studies find a relationship between music and high mathematics SAT scores. Relationships also exist between dance and media arts learning in high school and high achievement in math. (3)

Overall academic achievement:

Research suggests a significant positive relationship between arts study and high school students' overall academic achievement as measured by standardized tests and student grades. (4)

The Perpich Center for Arts Education recently published "Building a Legacy," the first statewide assessment of K-12 arts education in Minnesota.

Two correlations between student achievement and arts education were identified in Minnesota.

1

A positive relationship exists between a school's Focus Rating (part of the Minnesota's Multiple Measurement Rating or MMR) and higher levels of arts education (as measured by the arts education index).

2

There is a positive relationship between a school's scores for the Graduation Required Assessment for Diploma (GRAD) reading assessment and higher levels of arts education.

These positive correlations still hold when controlling for other "confounding" variables such as income, minority status or geography. Higher levels of arts education coincide with higher Focus Ratings (MMR) and GRAD reading scores. (5)

Research finds that students who experience arts integrated curricula meet or significantly exceed state and district standardized test averages, even in schools with high populations of at-risk students. (6)

Underserved populations:

There is a strong body of research that demonstrates ways in which the arts contribute to academic success for high school students from low socio-economic backgrounds, English-language learners and students with special needs. These populations demonstrate the greatest relative improvement in academic achievement when participating in the arts. (7)

"As a matter of social justice, we must be concerned when students are denied access to a high-quality education—one that includes learning in and through the arts—simply because of where they live or go to school."

— Sandra S. Ruppert, director of the Arts Education Partnership

Studies measuring creative thinking, critical thinking, problem solving and reasoning all find these functions increase and improve when arts education is added to the educational mix. (8)

Correlative studies also show a strong relationship between arts education and:

- positive emotional development that leads to stronger abilities to self-regulate
- deep engagement in learning
- motivation to learn for understanding
- a decrease in disciplinary issues in schools
- self-awareness, self-concept and self-expression
- self-efficacy and self-confidence

PERPICH
TEACHING IN AND THROUGH THE ARTS

Synopsis on Arts Education Research — Continued

The creative industries are America's largest export with more than

$60 billion

annually in overseas sales.

97%

of employers say creativity is of increasing importance but

85%

of employers concerned with hiring creative people are unable to find the applicants they seek.

Creativity-oriented jobs have gone from just over 10 percent of the U.S. economy to more than

30%.

Sources: U.S. Department of Labor, U.S. Bureau of Labor Statistics

Arts education, employment and contributions to a healthy economy

An article in Business Week magazine said, "The game is changing . . . It isn't just about math and science any more (although those are surely important disciplines). It's about creativity, imagination and, above all, innovation."

"Creativity is now the most important leadership quality for success in business, outweighing even integrity and global thinking."

— IBM study of more than 1500 corporate heads and public sector leaders across 60 nations and 33 industries

A number of materials point to the growing importance of creativity in today's economy:

A new report from the National Endowment for the Arts, "Artists in the Work Force: 1990-2005," shows that:

- There are now almost two million Americans who describe their primary occupation as artist.
- The size of the artistic community gives the group enormous aggregate income—approximately $70 billion annually.
- Compared to other U.S. workers, American artists tend to be better educated and more entrepreneurial.
- The number of artists in the U.S. has remained constant as a percentage of the population for the past 15 years.

Interviews with industry leaders looking at employment trends through 2016 for arts-related jobs predict that:

- Employment of artists and related workers is expected to grow 16 percent, faster than the average for all occupations.
- Employment of game designers is projected to grow by 14 percent.
- Employment of art directors is expected to grow by 12 percent.
- Employment in the motion picture and video industries is expected to grow 11 percent.
- Employment of interior designers is expected to grow by 19 percent.
- Employment of multimedia artists and animators is projected to grow by 13 percent.
- Employment growth by arts-centric businesses since 2007 was 11.6 percent, more than four times the rise in the total number of U.S. employees of 2.4 percent. (9)

"The time has come to insist on an obvious but overlooked fact—artists are workers. They make things and perform services, just like other workers, and these goods and services have value"

— Dana Gioia, chairman of the National Endowment for the Arts

"I work with a lot of Fortune 500 companies, and they're always saying, 'We need people who can be innovative, who can think differently.'"

— Sir Ken Robinson, author of Out of Our Minds

"Artists Count: The Economic Impact of Minnesota's Individual Artists (2007)," a statewide study conducted by lead organization Minnesota Citizens for the Arts (MCA), Springboard for the Arts and The Minnesota Crafts Council (MCC), found that of the 19,676 artists surveyed:

- Their economic impact in terms of their own spending was $295 million.
- They supported 5,937 full-time-equivalent jobs.
- They generated $24 million in state and local revenue.

The study also showed that artists are engaged in their communities, volunteering and voting to a higher degree than the rest of the population. (10)

1, 2, 3, 4, 6, 7, 8. The details of the studies cited may be found at http://www.artsedsearch.org/summaries/14/17/32
5. http://www.pcae.k12.mn.us/survey/legacy.html
9. Sources: Americans for the Arts, National Endowment for the Arts, U.S. Department of Labor, U.S. Bureau of Labor Statistics and the Entertainment Software Association
10. http://www.mncitizensforthearts.org/learn/artsresearch/artists-count-2/

PERPICH

HARVARDgazette

Return of the President's Challenge

In second year, seeks solutions to social concerns, including in arts

By Lauren Marshall, Harvard Staff Writer

Wednesday, October 10, 2012

President Drew Faust today launched the 2013 President's Challenge, inviting Harvard students and postdoctoral candidates to create entrepreneurial solutions to pressing societal problems and introducing a new category, the arts.

The President's Challenge was created last year in conjunction with the Harvard Innovation Lab (i-lab) to encourage students from across the University to find important high-impact solutions to the world's most pressing social problems and to provide support and guidance as student teams develop their projects. In its second year, the challenge is offering a broader set of topics — learning, energy and environment, health, disaster preparation and relief, and the arts — to which student teams can apply their minds, diverse passions, and creativity in developing project proposals.

"Harvard is a place of extraordinary creativity. The knowledge created in our classrooms and laboratories sparks ideas that generate innovative solutions with real-world impact," Faust said. "The second President's Challenge broadens the opportunity for all students and postdoctoral candidates to apply their passion and creative ideas toward meaningful contributions to society around them."

Selected by the provost and deans, who will administer the challenge through the i-lab, the topic areas provide opportunities for students to harness their interests as they develop projects. Students can develop a range of projects — anything from new products, distribution channels, or business strategies, to new ventures in the arts that can contribute to the lives of individuals and communities — and will have four months to advance their ideas.

"Last year's challenge revealed that our students are eager to apply what they are learning at Harvard to the world's most pressing problems," said Provost Alan M. Garber, a co-chair of the judging committee. "This year, we expect to see an even wider range of creative, ambitious proposals bubbling up from classrooms and research labs across the campus."

Last year, 170 student teams submitted project proposals to the President's Challenge. Vaxess Technologies, a Cambridge-based company founded by students from across Harvard, was selected as the grand prize winner, receiving $70,000 last spring to support a plan to commercialize new technology that uses silk to stabilize routine vaccines and eliminate the need for refrigeration in transport and delivery. In addition to the Vaxess team, the student-led teams that received $10,000 as runners-up in the competition included SPOUTS of Water, which proposed creating a self-sustaining ceramic water filter factory in Uganda; Revolving Fund Pharmacy, which tackled issues involving delivery of lifesaving medications in western Kenya; and School Yourself, which develops interactive electronic textbooks in math and science.

The i-lab will host a kickoff event exploring the promise of social entrepreneurship on Oct. 18, featuring David Edwards, Gordon McKay Professor of the Practice of Biomedical Engineering and founder and director of Le Laboratoire in Paris, whose work spans the arts and sciences.

The i-lab will support participants throughout the challenge, equipping them with the skills and guidance needed to take on their projects. Mentoring and networking activities are planned through the fall, leading to the submission of project proposals from the student teams by February.

A panel of Harvard faculty and alumni organized by judging committee co-chairs Garber and William Sahlman, Dimitri V. D'Arbeloff – MBA Class of 1955 Professor of Business Administration, will select 10 finalist teams, which will each receive $5,000 to help develop their ideas in the spring semester and provide expert support and resources that will aid in developing their concepts. The finalists will showcase their progress in a "Demo Day" event in May.

Following Demo Day, just before Commencement, one grand prize winner and up to three runners-up will be announced and awarded a share of a $100,000 total purse. The grand prize winner also will be awarded dedicated workspace in the i-lab, mentoring, and access to expert resources in the i-lab through August.

Gordon Jones, managing director of the i-lab, said: “We help all students take their ideas as far as they can go, and are excited to support students’ personal and professional aspirations — whether those are in a social or artistic domain — in this President’s Challenge. This is a unique opportunity for any Harvard student to make an impact locally or globally, and we want to give them the tools to achieve that.”

Read the full article here
http://news.harvard.edu/gazette/story/2012/10/return-of-the-presidents-challenge/

HUFFPOST ARTS & CULTURE

STEM to STEAM: Art Is Key to Building a Strong Economy

By Jon Kamen and John Maeda

11/13/2012

We recently had the pleasure of collaborating in Richard Saul Wurman's new improvisational conference WWW, which came to life for the first, and perhaps only, time in September. One of many powerful moments of conversation was when Will.i.am took the stage to talk about the importance of getting children involved in Science, Technology, Engineering and Math -- the STEM subjects. The lead singer of the Black Eyed Peas has become an impassioned spokesperson for how STEM will power the economy and lift neighborhoods from poverty, and for how we need to do more to get kids to pursue careers in the STEM fields.

Talking to each other after his talk, we both realized it's no coincidence that someone like Will.i.am -- an artist himself -- makes the case for STEM the best. As the CEO of a global transmedia company, and president of the preeminent school of art and design, we both witness the amazing thinking and making that creative people -- artists and designers -- engage in every day. It's why, like Will.i.am himself has recently started to champion, we need to include Art and design when we talk about how STEM powers innovation. We need to add Art to turn STEM to STEAM.

Our conversation together reinforced three important points about why STEAM, not STEM, is so critical:

Artists and designers bring STEM to life:

As we all know, STEM is so important -- but on its own, sadly it's not working. Despite all of the resources being invested in it, the word is exactly what's wrong with the concept. It doesn't inspire, energize or engage the youth whom it is ultimately intended to benefit; hence our nation is falling desperately behind.

Just looking around the room at WWW, when an artist like Yo Yo Ma or Will.i.am speaks or performs, you instantly recognize the attention the Arts commands. There's a level of storytelling and pure emotion that only they can convey that makes people sit up and take note. It's artists and designers who tell stories to move, to inspire, to entertain, to persuade. This same creative thinking that will be required to solve the gnarly challenges the 21st century presents to us.

As an example, there was a recent campaign by the Lumina Foundation calledKnowHow2Go, aimed at getting high school kids prepared for college. It reminds them of the required courses they will need to take to be considered for admission -- Natural Sciences, Mathematics, Foreign Languages. Lumina is right: these are the subjects many colleges value. But what about the important work of getting the students tuned in to this message? That was done with a compelling campaign developed by the same kinds of artists and designers who come to RISD and end up working for firms like @radical.media.

Creativity will always be America's secret sauce:

What is missing from traditional STEM approaches is what has always been the "secret sauce" to American progress -- creativity. When we think about the success of the American auto industry in its heyday, or Apple's present success, it's because both pioneered taking a product that was purely functional and made it desirable. Both took a piece of technology and provided artistry.

We both see examples every day -- of students experimenting with a new material to get the desired shape, of sound editors staying up to all hours mixing to get the desired impact, of web designers testing versions to get the most intuitive experience. The artists' and designers' passionate pursuit to express themselves -- to make an impact -- gives the technology in their hands purpose and makes innovation come alive.

STEAM is gaining traction

At RISD we have been championing STEAM for a while and have truly seen a national movement starting to take shape. In addition to Will.i.am, this year Sesame Street is being brought to viewers by the letters S - T - E - A - M . Only a year ago, Elmo was interviewed on CNN about the importance of S -T - E -M.

In Rhode Island, Representative Jim Langevin (D-RI) introduced House Resolution 319, which “Expresses the sense of the House of Representatives that adding art and design into federal programs that target Science, Technology, Engineering and Math (STEM) fields, encourages innovation and economic growth in the United States.” Government agencies like the National Science Foundation and the National Endowment for the Arts are working together and are both behind STEAM as well.

You can support the House resolution and let your voice be heard by signing this petition. Join us at http://stemtosteam.org/

Read the full article here
http://www.huffingtonpost.com/jon-kamen/stem-to-steam-art-is-key-_b_2123099.html?view=screen

Post-Bulletin

IF IT MATTERS TO YOU, IT MATTERS TO US

Susan Nee: Excessive focus on tests thwarts innovation

By Susan Nee

April 15, 2011

In the corner is a guitar. On top of the filing cabinets, sharing space among accumulated papers and sedimentary layers of the lives of second-graders, sits a bust of Robert Frost, which was sporting horn rimmed glasses the last time I saw it.

This is the classroom of a second-grade teacher at one of Rochester's public schools. Down the hall a few doors is a reading teacher who purchased beautifully rendered copies of Robert Frost's "Stopping by Woods on a Snowy Evening" for her students. Once I listened as she worked, coaxing them to slow down as they read aloud so they could hear the rhythm of the poem. It was beautiful.

These people were born to teach. You see it in their eyes and in their classrooms. They are approachable, patient, and there is energy in their delivery. They walk around their classrooms. They are experts at using the pause with a purpose; the one that, without saying a word, lets a student know they're out of line. They are firm when it is needed. They are a walking seminar on classroom management.

I had the opportunity for three years to work with them and have seen what constant testing and poring over classroom test results can do to the spirit of an excellent teacher.

I've listened to teachers talk about how excessive focus on testing has cut time out of the day for things like social studies, history, science and recess. The easiest things to jettison are things not being measured with a standardized test. Yes, we need testing to tweak curriculum and measure students' retention. And basic reading skills and math skills are a must. But listening to music, reading poetry, and exploring the wonders of math outside skill drills ignites young minds.

Good teachers get this. They know the precious mind development time being wasted by constant drilling for tests. The goals established by No Child Left Behind can be blamed for all this test focus. But, NCLB had at its outset a noble goal; to lift the quality of all American children's lives by starting them out with an education to equip them for college or trade school. Too many schools nationally are "drop out factories." Too many bad teachers are protected by tenure and unions. Too many administrators just move ineffective teachers from school to school rather than move them out of teaching altogether. And too many school districts have acquired a decades long habit of just asking for more funding when told they are not producing quality education.

The global economy has increased the wealth for countries who adapted and figured out how to get a bigger slice of pie for themselves. Meanwhile, the American education system has had the same structure and approach for decades. Our education results compared with the rest of the world just show we haven't improved as the world raced to catch and outpace us.

A study by the University of Kansas recorded the number of words parents from 42 families in various socio-economic groups spoke to their 4-year-old children. Children from professional families heard on average 45 million words before kindergarten. Children from poor families heard on average 13 million words. This is the beginning of the achievement gap and the cold calculus of poverty.

How does the child with the 32 million word deficit catch up without more time in school? People like Geoffrey Canada of the Harlem Childrens Zone get this. The KIPP (Knowledge Is Power Program) schools get this. Our local Chamber of Commerce gets this, too. In fact, chambers of commerce across the United States are getting more involved in education as they see a shortage of workers on the horizon and have a vital interest in investing in human capital for our country's businesses.

Our nation's education structure needs to move into the 21st century — better fiscal management, better personnel management, and be quicker to adopt technology which reduces costs and offers better choices to educate children across the spectrum. We also need to follow the lead of the pioneers who have found effective solutions to the achievement gap.

We Americans, we're boisterous, loud, argumentative and full of hubris. We also, in the end, always buckle down and do the work that's needed. We'll do it with education, too. Let's quit finger pointing and whining and start the work to change how we approach education, and be willing to adapt and change.

Susan Nee is a member of the Post-Bulletin's Editorial Advisory Board.
Post-Bulletin Company, L.L.C.
www.postbulletin.com

Read the full article here

http://www.postbulletin.com/opinion/excessive-focus-on-tests-thwarts-innovation/article_c9a0e6a4-836e-52b9-b5b2-79f402d5e995.html