**Exerpts from *Reinvesting in Arts Education: Winning America’s Future Through Creative Schools,* President’s Committee on the Arts and the Humanities, May 2011**

See [www.pcah.gov/sites/default/files/PCAH\_Reinvesting\_4web\_0.pdf](http://www.pcah.gov/sites/default/files/PCAH_Reinvesting_4web_0.pdf) for the full report.

**What it is**

An in-depth review of arts education, including research about the benefits, and arguments for retaining arts education in schools – in particular but not exclusively, in cross-curricular/arts integration models.

**Why it was done**

US schools are in crisis and in need of transformation, as many high schools aren’t able to engage and motivate students, and many leave school without the skills needed for the 21st century knowledge economy. Leaders worry that the US is losing its competitive edge because it’s been focusing on rigorous academic standards without including creativity and imagination alongside this. President Obama and education professionals in the US believe arts education holds the key.

From the executive summary:

*“Persistently high dropout rates ... Students who do graduate from high school are* ***… the product of narrowed curricula, lacking the creative and critical thinking skills needed*** *for success. In such a climate, the* ***outcomes associated with arts education – which include increased academic achievement, school engagement and creative thinking – have become increasingly important****.”*

From the Foreword by Arne Duncan, US Secretary of Education:

*“To succeed today and in the future, children will need to be inventive, resourceful and imaginative. The best way to foster that creativity is through arts education.”*

*“The study of drama, dance, music and the visual arts helps students explore realities, relationships and ideas that cannot be conveyed simply in words or numbers … “*

*“President Obama … firmly believes that arts education builds innovative thinkers who will become our nation’s leaders in government, business and the nonprofit sectors.”*

From other sections of the report:

**The problem**

***The narrow focus on only teaching the basics has clearly not been the answer… Many high school graduates lack the skills to make them successful***  *… 21st century skills, or habits of mind … problem-solving, critical and creative thinking, dealing with ambiguity and complexity, integration of multiple skill sets, and the ability to perform cross-disciplinary work.*

*A July 2010 Newsweek cover story … The Creative Crisis … drew attention to a* ***growing creativity gap*** *based on the significant decline in tested creativity scores of American students over the past 20 years… The report also drew attention to the* ***lack of nurturing of creativity in the US*** *as compared to other countries* ***(eg Great Britain …) which are now making efforts to infuse curriculum and teaching practice with idea generation, problem-based learning, real world inquiry, and innovation …***

*Reformers are calling for* ***transformation of learning*** *…fundamental change in what and how students learn.*

*There is great stress now on arts programs as school boards … wrestle with budget woes... Tight school budgets …* ***the narrowing of the curriculum as a result of the emphasis on accountability for basic skills****… in this climate of heightened accountability* ***some believe schools will give … time only to subjects included in high stakes testing.*** *While almost all states have arts standards, fewer than a third have required arts assessments – so there is scant opportunity to demonstrate student learning in the arts.*

*… students in the schools that are most challenge and serving the highest need student populations often have the fewest arts opportunities… in practice it means that* ***the students who could benefit the most from the increased motivation and life/workforce skills …. are the least likely to*** *have the opportunity.*

**The opportunity**

The report points out that the arts don’t have a monopoly on creativity but the approaches used in teaching them are compatible with developing the three abilities associated with creativity:

* Generating new and novel ideas (synthetic ability)
* Choosing which ideas to pursue (analytical/critical thinking ability)
* Translating ideas into action (practical ability)

National task force reports increasingly show that arts education can support the demands on the workforce in the knowledge economy.

IBM’s 2010 Global CEO survey found that CEOs in 60 countries believe creativity is the most important leadership quality and helps employees capitalize on complexity.

Employers believe that creativity is the ability to identify new patterns of behavior or new combinations of actions and integrate knowledge across different disciplines, and that arts study is the second most important indicator of a potential creative worker (second only to track record of entrepreneurship).

*“The time is ripe, the building blocks are in place.”* A critical mass of research evidence about the effects and outcomes of arts education including arts integration/cross curricular arts, now exists, as well as plenty of models of best practice, and experts who can support the scaling up of these initiatives.

**Key messages about the benefits of arts education**

Decades of research show strong and consistent links between high-quality arts education and educational outcomes, but learning is complex, and so the research doesn’t yet establish causal proof (ie do this activity in this way and you’ll raise SAT scores by this much). In the first chapter of the report, there's a summary of the instrumental outcomes that leadership groups with an interest in education have identified as resulting from arts education, and they summarise the results of much of the research:

ACADEMIC ACHIEVEMENT – ie reading and maths performance, including transfer of skills learning from the arts to learning in other academic areas (eg spatial-temporal reasoning skills developed by music instruction)

MOTIVATION, ENGAGEMENT & ASPIRATION – improved attendance, persistence, focused attention, heightened educational aspirations, intellectual risk-taking

THINKING SKILLS/HABITS – problem-solving, critical and creativing thinking, dealing with ambiguity and complexity, integration of multiple skill sets, working with others

SOCIAL SKILLS – development of social competencies, including collaboration and team work skills, social tolerance, self-confidence

**The landmark research studies**

**Longitudinal studies**

**Champions of Change: The Impact of the Arts on Learning, Fiske, 1999, Arts Education Partnership and the President’s Committee on the Arts and Humanities[[1]](#footnote-1)**

A compilation of 7 studies that show the link between high levels of arts participation and higher grades and test scores in maths and reading. Included the well-regarded Catterall study that first examined data from a longitudinal survey[[2]](#footnote-2) of 25,000 students over 10 years.

The Catterall study in particular found that although wealthier students were more likely to take part in the arts, **all students including minority and low-income students, performed better in school and stayed in school longer** than students with low involvement.

- low income students involved in band and orchestra outscored others in maths;

- low income students involved in drama were better at reading and had more positive self-concept

In 2009, Catterall followed up with these students, now in their mid-20s, and found that arts-engaged low income students are more likely than non-arts engaged to have:

- attended and done well in college

- obtained employment with a future

 - volunteered in their community and voted.

**Critical Links: Learning in the Arts and Student Academic and Social Development, Deasy (AEP) 2002**

Report on 62 research studies focusing on cognitive capacities developed by arts learning, and transfer of skills to reading and maths. Also reported positive habits of mind, self-motivation and social skills including tolerance and empathy and positive peer interaction. Reports included:

*Living the arts through language-learning: A report on community-based organisations, SB Heath, 1998*

Students involved in arts ed for at least nine hours a week were four times more likely to have high academic achievement and three times more likely to have high attendance.

*Community counts: how youth organisations matter for youth development, McLaughlin, 2000*

Longitudinal study of the lives of youth in low income neighbourhoods. Those who participated in arts were more likely to be high academic achievers, to be elected to class office, and participate in a maths or science fair.

*Staying in school: Arts education and New York City high school graduation rates, Dept of Justice, Israel, 2009*

★ participation led to decreased delinquency and drug use, increased self-esteem and positive interactions with peers and adults.

★ students experiencing success in the arts appreciate the results of effort and persistence and are more motivated to apply themselves to other learning tasks.

*Creative Learning: People and Pathways, Dallas' Big Thought Programme, Bransom et al, 2010*

★ sustained engagement in fine arts gave high school students a substantial advantage in reading achievement w

★ all students who participated in arts clubs/groups had an advantage in reading and maths achievement.

**Arts integration/ cross-curricular arts / teaching through and with the arts**

*“Arts integration may hold unique potential as an educational reform model… studies have now documented significant links between arts integration models* ***and academic and social outcomes for students, efficacy for teachers, and school-wide improvements*** *in culture and climate. [it is] efficient, addressing a number of outcomes at the same time [and the gains are] school-wide, and also with the most hard-to-reach and economically disadvantaged students.”*

*“School-wide achievement gains have been observed when arts integration has been applied as a school reform and improvement strategy.”*

*Fiske 1999 Champions of Change* – arts integration produces **better attendance, fewer discipline problems, increased graduation rates and improved test scores**; **motivates students who are difficult to reach** and **challenges to the more academically successful.**

Arts for academic achievement: What does arts integration do for students? Ingram and Raidel, 2003; Unspecified title, DeMoss and Morris, 2006 – arts integration **improves reading in economically disadvantaged students and English learners**.

**Chicago Arts Partnership (CAPE) arts integration model research:**

CAPE: summary evaluation, Catterall and Waldorf, 1999 –– the 19 elementary schools operating the CAPE model showed consistently **higher average scores on the district’s reading and maths assessment** over six years, compared with other schools. There were also **positive changes in school climate** eg leadership, focus on instruction, teacher colleagueship, participation in decision-making.

*How arts integration supports student learning, DeMoss and Morris, 2002 –* arts integration supports student engagement in learning. Arts-integrated units **consistently engaged students in complex analytical cognitive activity, including those who struggle** with academic tasks. Students were not bored or discouraged, and showed interest in independent learning.

**North Carolina network of A+ schools research over 12 years:**

(an education reform model based on arts-integration, incorporating Gardener’s theory of multiple intelligences, recent brain research findings, and dance, drama, music, visual art, creative writing).

* consistent **gains in achievement, engagement of parents and community** and other measures of learning success.
* **disadvantaged and minority students performed as well on state-wide reading and maths assessments** as students from more advantaged schools.
* ***“This is doubly more impressive considering that while other schools have focused on basic skills in response to high stakes testing, the A+ Schools have achieved reading and maths gains without narrowing the curriculum.”***

**Oklahoma A+ schools research**

* Students were more likely to find school challenging, interesting and enjoyable where A+ was embedded in school policy and daily practice, compared to those where arts was an add-on.
* They achieved statistically significant higher average results than other schools (according to state academic performance data) even though in North Carolinea, the schools serve higher percentages of minority and economically disadvantaged students.

**Study of arts integration schools in Montgomery County, Maryland**

* Rigorous evaluation design - looked in more detail than most studies.
* Compared 3 arts integration focused schools (AIMS) and 3 control schools over 3 years.
* AIMS schools substantially **reduced the achievement gap** between high-poverty minority students and other students.
* The AIMS schools with the highest percentage of these students **reduced the reading gap** by 14% and maths gap by 26%.
* The AIMS schools with the lowest number of students proficient in reading and maths achieved a **23% increase in the number scoring proficient**.
* 79% of teachers said it had “totally changed their teaching” and given them “additional ways of teaching critical thinking skills”
* As a result of the research, the Maryland State Dept of Education invested in tracking arts integration and developing assessments of arts learning.

**Brain research**

**Dana Foundation – cognitive neuroscientists in seven universities**

Formal studies of the connection between arts training and academic performance using advanced techniques including brain imaging are finding that early arts education is a building block of developing brain function. Findings – which confirm earlier findings – include:

* music training is closely linked with development of **phonological awareness** (the ability to hear and produce separate sounds)– one of the most important predictors of early reading skills
* children who were motivated to practice a specific art form developed **improved attention and general intelligence.** Training of attention and focus leads to improvement in other cognitive domains.
* high levels of music training are linked with the ability to **manipulate information in working and long-term memory**

**John Hopkins Neuro-Ed Initiative researchers (incl. Rudacliffe, 2010)**

* the **brain prioritizes emotionally-tinged information for conversion to long-term memory**. The rehearsal and repetition of information embedded in multiple domains may cause an actual change in the physical structure of neurons.
* arts integration, which emphasizes repetition of information in multiple ways, is likely to embed knowledge in long-term memory.
1. These studies were questioned because they were descriptive and didn’t analyse the features of the arts that were responsible for the outcomes. An article in an education journal urged caution in making instrumental claims based on correlational rather than causal links. Since then, there have been updates of studies and analysis of brain research to understand more about how arts affects the brain, and te arts community has become more clear in its reporting, and interested in more in-depth research. [↑](#footnote-ref-1)
2. Basis for analysis: the ‘National Educational Longitudinal Survey’ (standardized test scores, academic grades, drop out rates) [↑](#footnote-ref-2)