



Arts Education in Maryland Schools Alliance

Imagination, Creativity and Innovation

CAFE XII

Panel Discussion Imagination Conversations

June 9, 2011

IMAGINATION CONVERSATIONS SUMMARY

**Arts Education in Maryland Schools Alliance
Cultural Arts for Education (CAFE XII) Conference
June 9, 2011
Imagination, Creativity and Innovation**

IMAGINATION CONVERSATIONS PANEL

Richard J. Deasy, Former Director, Arts Education Partnership - Moderator
Michael LaRoi, Director, Advanced Concepts & Technologies – Northrop Grumman Corporation

George Maloney, President Helix Construction Services, Inc.

Kevin Maxwell, Superintendent of Anne Arundel County Public Schools

Tim O’Ferrall, Chief Executive Officer, The O’Ferrall Group

Joyce Phillip, Chief HR Officer, University Physicians, Inc.

Steve Smalley, Systems Engineer, Frostburg State University Engineering Advisory Board

Solomon Snyder, M.D., Professor of Neuroscience, Johns Hopkins University

Don Thomas, International Space Station Program Specialist, Astronaut, Director of Towson University Hackerman Academy of Mathematics and Science

Background

Panel conversations and the follow-up discussions among attendees at the CAFE XII conference were the culmination of a series of breakfast conversations and other engagements the Arts Education in Maryland Schools (AEMS) Alliance sponsored over recent months. Maryland Conversations were designed to promote understanding of the essential role of **Imagination, Creativity** and **Innovation (ICI)** across a broad spectrum of professions and implications for education. Participants included corporate/business leaders; engineers; scientists; attorneys; researchers; artists; teaching artists; cultural arts institutions representatives; policy makers; and higher education, arts education, and education leaders. The insights, valuable information, and recommendations contributed during discussions were compiled in a report, *Imagination Conversations in Maryland: Nurturing the Imagination/Creativity/Innovation Continuum*.

Richard Deasy, Moderator

The Maryland conversations are among the more than 40 conversations across the country over the past 18 months that are being conducted in partnership with the Lincoln Center Institute, the educational outreach program of Lincoln Center. The Institute’s educational philosophy has long embraced the crucial role of the imagination in all forms of learning, including, of course, the arts. The national Imagination Conversations were launched in conjunction with the Center’s 50th anniversary last year. The initiative culminates in a “summit” meeting in New York July 21-22 attended by participants in the state level discussions.

Research done by the national Arts Education Partnership substantiated the crucial role of imaginative thinking and its application in creative and innovative ways in school, life, and work. In 2008 a national poll of American voters jointly commissioned by AEP with other organizations revealed that 91 % of the electorate felt that imagination needed to be fostered in schools and that failure to do so was damaging to children and their future roles as contributors to a vital America. These research and polling data added to

Lincoln Center's desire to conduct the national conversations. The hope is that the conversations throughout the country and at the Summit will provide insights to guide policies and practices that will encourage a greater commitment to the nurturing of imaginative, creative, and innovative thinking in the nation's schools.

Panelists at the conversations, represent a wide range of expertise and fields of endeavor. They have addressed three general questions:

1. What role does imaginative thinking play in achieving creative and innovative achievements in your field of endeavor?
2. What are the strategies and conditions within your field that continuously nurture, promote, and reward such thinking?
3. How can we replicate or emulate these strategies and conditions to advance imaginative thinking and creative and innovative activities in the nation's schools?

To provide a thread of consistency across the many national conversations the Lincoln Center used the following definitions for imagination, creativity, and innovation, which were seen as sequential and interrelated in practice:

Imagination: the capacity to visualize new possibilities - for thought, action and/ or the use of materials

Creativity: engaging the imagination to conceive, express, or produce something highly original

Innovation: engaging imagination and creativity to produce an advance in a field of activity.

CAFE XII Imagination, Creativity, Innovation (ICI) Panel Discussion

During the CAFE XII Imagination Conversations a rich dialogue was initiated that probed the experiences of the diverse panelists with the processes leading to innovation. Crucially, many panelists are also involved in various ways with schools and universities. The goal of the moderator was first to explore personal experiences and then to focus a significant amount of time on the suggestions panelists had for fostering comparable learning experiences in appropriate ways for students. Mr. Deasy encouraged discourse that would explain the extent to which the field of activity of each panelist can be supportive of and engaged with schools.

Can you discuss an innovation that you have personally participated in within your field and the conditions and processes that brought it about?

How is an environment conducive to imaginative, creative and innovating activity fostered and sustained within your professional field/organization?

What are your views of how comparable environments can be created with schools and universities?

Common elements shared by panelists as they discussed the process involved in Imagination, Creativity and Innovation

Motivation/Challenge -- Needs and/or Wants -- Collaboration -- Visualizing/Imagining -- Creativity -- Risk Taking/Failure -- Problem Solving -- Innovation

Panelists emphasized the importance of risk taking, experimentation, and the freedom to fail in each of their professional fields. Failed attempts during the innovative process add to the knowledge base which is necessary to problem solve, create and ultimately succeed. An open and non-restrictive physical and intellectual environment for collaboration among diverse thinkers with their own unique gifts and strengths nurtures innovation and serves as a catalyst for risk taking. The combined contributions, creative thinking, and problem solving techniques of individuals working together without the encumbrance of judgment or right vs. wrong answers enables the group to overcome obstacles in realizing their mission or goal and to create a better solution or product. The philosophy that mistakes are okay, that one learns from mistakes, and that mistakes can lead to solutions, are concepts that should transfer to schools and be introduced to children at a very early age. Leadership in the work place and in schools is an important factor in promoting try/fail/try again development skills. By helping to instill confidence, an effective leader nurtures risk taking, creativity and innovation.

Continuous assessments to determine quality and/or “what could be done better” promote inspiration and creativity. Asking questions (i.e. “What if? How? What?”), and exploring multiple possibilities for improvement, expansion, or evolution of a subsequent product or discovery, nurtures higher level thinking and ICI. Project based exploration without structure restrictions, but with the freedom to think outside of the box and pursue non-conventional ideas with non-conventional methods is an avenue for ICI.

Specific perspectives offered by panelists enriched the discussion:

Dr. Solomon Snyder, Professor of Neuroscience, Johns Hopkins University, described his breakthrough research on the biochemistry of neural synapses and ways of stimulating production of such vital neurotransmitters such as serotonin and dopamine, which act on neural receptors. He recounted his research’s genesis in a decision to challenge the conventional wisdom that it would be an impossibly complex endeavor. In addition to challenging conventional wisdom, he pointed out that scientific breakthroughs rely on tenacity and patience over a long period of time. Dr. Snyder spoke compellingly about the importance of the arts in expanding children’s capacities.

Don Thomas, International Space Station Program Specialist, Astronaut, Director of Towson University Hackerman Academy of Mathematics and Science, spoke of his experience working at the Bell Labs, which was a particularly productive environment for research. As a scientist and astronaut who participated in the NASA space program he learned to distinguish between the urgent need for precise adherence to protocols in certain situations and times when creative thinking is called for in the context of space missions and research. He cited the creative work of the NASA engineers meeting the technical challenges that arose on Apollo 13 as being an excellent example of the latter. The parallel was drawn with schools with panelists acknowledging that it is important to

instill the capacity for discipline and precision as well as free exploration. Also, the point was made that while some rules are needed in schools those rules that are arbitrary are not helpful in creating an environment supportive of ICI.

Kevin Maxwell, Superintendent of Anne Arundel County Public Schools, spoke about the partnerships of the science and technology sectors with his school system as well as their work in arts integration -- *instruction that integrates content and skills from the arts - dance, music, theatre and the visual arts -- with other core subjects and is reported by arts integration practitioners to stimulate cognitive development, encourage innovative thinking and build creativity.* He drew the connection between learning in and through the arts and the value of hands on exploratory experiences for students to develop motivation, understanding, and capacity for imagination/creativity/innovation across subject areas including STEM. He talked about incorporating the arts in STEM to make it "STEAM." He cited the STEM schools in Anne Arundel County in which the arts play a vital role. He described an interdisciplinary project in analyzing a creek environment, which was particularly effective. He also spoke of his role as a leader and what he does to support those around him to be innovative.

From the corporate perspective (Northrop Grumman), Michael LaRoi, Director, Advanced Concepts & Technologies and Steve Smalley, Systems Engineer, focused on their need for creative as well as technically proficient thinkers for their engineering staffs. Michael LaRoi pointed out that employees in his organization that have a background in the arts are often more comfortable in making decisions; are inclined to offer creative, insightful solutions; and have the ability to remain highly focused on tasks, research, and projects.

George Maloney, President, Helix Construction Services, Inc., spoke of the creative thinking that is necessary in the construction field; as an artist himself, he sees clearly the relationship of the arts and ICI to succeeding in the development and construction industry.

Joyce Phillips, Chief HR Officer, University Physicians, Inc., brought the perspective of personnel work, and talked about her recognition that to be successful, employees need to be able to be open to listening and understanding other people's view points and to think creatively about how to resolve problems. She addresses these needs through hiring and training processes.

Tim O'Ferrall, Chief Executive Officer, The O'Ferrall Group, reflected his background in marketing and innovation in business in citing the value to the corporate community of instilling ICI, and the need for corporate leaders to support building those capacities in young people through education, particularly in the arts.

*The AEMS Alliance is a Member of the Kennedy Center Alliance
for Arts Education Network*

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