

The Parents League
OF NEW YORK

Review
2015

Essential Articles on Parenting and Education

Raising Leaders of Change

DAVID EGOLF, *Head of School, Corlears School*

Innovation distinguishes between a leader and a follower.

—Steve Jobs

The Changing Paradigm

Business experts across the globe are looking at Apple, Google and IDEO and asking what makes them, and the people that work for them, so innovative.

Individuals emerging into the workforce realize that the leading companies are looking for something different than they have in the past and many people are asking what they need to do to get on onboard.

In a 2014 *New York Times* article, Tom Friedman used an interview with Laszlo Bock, Google's person in charge of hiring, to develop an outline of what it might take for today's children to get jobs at places like Google when they finish school. Mr. Friedman sums up Bock's thinking by saying "in an age when innovation is increasingly a group endeavor, [Google] also cares about a lot of soft skills—leadership, humility, collaboration, adaptability and loving to learn and re-learn. This will be true no matter where you go to work."

Authors like Tony Wagner, Daniel Pink and Sir Kenneth Robinson are taking a step further by asking the question: How can we organize our schools and businesses to support the need for innovative thinkers in the workforce?

The four C's (Creativity, Collaboration, Communication and Critical Thinking) have been added to the three R's, and creativity has become the biggest commodity of the 21st century global market. In turn, schools must produce big thinkers who can collaborate

with teams of individuals and think dynamically about challenges.

Fortunately, there are lessons to be learned from research and practice. There are several key components to setting up schools to help today's children grow up to be the next great innovators.

Creating the Environment for Creativity

According to Teresa Amabile, a researcher at Harvard, certain environments can either support creativity or diminish it.

Environments that support creativity provide positive reinforcement as students acquire new knowledge. Creative, friendly environments also allow students choice in their learning while celebrating discovery and innovation.

Even the work of older students can have elements of play.

Above all else, Dr. Amabile tells us that schools need to help students find intrinsic motivation to solve problems. Motivation should not be imposed through external rewards but through the child's own interest in figuring things out. Teachers should be warm and supportive, yet challenge students to make their own decisions.

Tony Wagner, author and Expert in Residence at Harvard University's new Innovation Lab, has spent the last several years investigating innovation by researching and interviewing individuals and business leaders across the country. In his most recent book, *Creating Innovators: The Making of Young People Who Will Change the World*, Mr. Wagner finds a pattern to describe the journey to becoming innovative as beginning with play, which leads to passion that later provides purpose.

Setting the stage for this journey means recognizing that play is a critical part of learning in schools. Even the academic work of older students can have elements of play through hands-on experimentation and inquiry-based learning where students take an active role in the ideas they investigate and how they find the information.

Once students are engaged through play, passion is an easy next step and brings the intrinsic motivation that Dr. Amabile speaks about. A sense of purpose is gained through passion but often it also feeds motivation as innovators realize that they can solve real problems and fill real needs.

Blurring the Boundaries

Steve Jobs was fond of quoting Edwin Land, the inventor of instant photography and founder of Polaroid, who told him that, "those people who can stand at the intersection of the humanities and science, the liberal arts and technology, that intersection, are the people who can change the world."

Researchers Robert and Michele Root-Bernstein studied scientists, engineers and entrepreneurs and found that those who were the most successful in their fields were also very engaged in making

We cannot fail to recognize the importance of arts education in innovative thinking.

arts and crafts across their lifetimes. They also found that these individuals used their arts experience to help them find innovative solutions to problems in their chosen profession.

Applying this to our schools means the information and challenges that we put in front of students must ask them to apply understanding from multiple disciplines. We cannot fail to recognize the special importance of arts education in innovative thinking.

Curriculum integration, especially in the form of STEAM (Science, Technology, Engineering, Art and Math), mimics the kind of work that the global economy demands. Small-group activities, with open-ended challenges connected to what students are studying, should be regular work in our schools. During these working sessions teachers should model the cross-disciplinary connections for students by joining their colleagues and co-teaching to share expertise.

Making a Difference

Finally, students need to learn that their ideas can have a positive, lasting impact on the world around them. Challenged to solve real world problems, students learn to think of ways that their innovative ideas can improve the lives of those around them.

An inspiring example is provided by the Design for Change organization. Founded by Kiran Bir Sethi, who is also the Director of the Riverside School in Ahmedabad, Gujarat, India, Design for Change provides resources to help students move through a simplified design thinking process that asks them to “feel” any problem that bothers them, “imagine” a way to make it better, “do” an act of change and “share” their story of change with the world.

Ms. Sethi believes strongly that if we empower students they can make a profound difference. In her popular TED talk, “Kids, take charge,” she describes the first projects of Design for Change, which was begun in 2009.

These projects had her fifth grade students going out into their local community and campaigning for change in child labor laws and advocating for more child-friendly cities. The Design for Change organization has now grown to reach 34 countries and over 300,000 students around the world.

It is never too early to build this kind of consciousness in our future leaders. Schools need to take up the responsibility of teaching students so that they can make a difference.

The Innovation Imperative

Since critical ground is laid in the earliest years of education, our lower schools (nursery and elementary years) need to do the work

Students need to learn that their ideas can have a positive, lasting impact on the world around them.

of developing the habits and mindsets that students require to excel in this new paradigm.

During these years we must build deep understanding of concepts and develop the skills of communication and collaboration, alongside strong divergent and flexible thinking skills. Students should emerge from their elementary school years with a love of learning and a thirst for new challenges, and they should experience joy in finding alternative ways to solve problems.

Capitalizing on this foundation, middle and upper schools, along with colleges, can introduce more complex and abstract opportunities for creative problem solving.

The innovation imperative then is for educators and parents to recognize this need and focus their schools around these guiding principles:

- Environments that support creative thinking avoid extrinsic reward and provide encouragement and opportunity for play and choice.
- By teaching the arts from an early age and intersecting science, humanities and arts curricula in exciting ways, new frameworks for problem solving will emerge.
- Children can make a difference when they engage in real-world problem solving and use their innovation for community action.

This takes sustained effort, but with a dedicated focus and energy on innovation in schools, we can provide the next generation with the great minds that they need to excel.

References

Amabile T. M. *Creativity in Context: Update to the Social Psychology of Creativity* (1996) (Westview Press, Boulder, CO)

- Amabile, T., Fisher, C. M., & Pillemer, J. (2014). IDEO's Culture of Helping. *Harvard Business Review*.
- Friedman, T. (2014, February 22). How to Get a Job at Google. *New York Times*, pp. SR11. <http://www.nytimes.com/2014/02/23/opinion/sunday/friedman-how-to-get-a-job-at-google.html>.
- Gallo, C. (2011). *The Innovation Secrets of Steve Jobs: Insanely Different: Principles for Breakthrough Success*. New York: McGraw-Hill.
- Framework for 21st Century Learning*. (2014). Retrieved April 7, 2014, from <http://www.p21.org/our-work/p21-framework>.
- Pink, D. H. (2006). *A whole new mind: Why right-brainers will rule the future*. Penguin.
- Robinson, K. (2006, February) How schools kill creativity [Video file]. Retrieved from http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity.
- Root-Bernstein, R., Allen, L., Beach, L., Bhadula, R., Fast, J., Hosey, C., et al. (2008). Arts foster scientific success: Comparison of Nobel prizewinners, Royal Society, National Academy, and Sigma Xi members. *Journal of the Psychology of Science and Technology*, 1(2), 51–63.
- Root-Bernstein, R. & Root-Bernstein, M. (2013). The Art and Craft of Science. *Educational Leadership*, 70(5),16-21.
- Sethi, K. (2009, November). Kids, take charge [Video file]. Retrieved from http://www.ted.com/talks/kiran_bir_sethi_teaches_kids_to_take_charge.
- Wagner, T. (2012). *Creating innovators: The making of young people who will change the world*. Simon and Schuster.

David Egolf is the Head of School at Corlears School, a nursery through fifth-grade school in Manhattan.