



## The Residue of Wasted Time

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Creativity is valuable.

From a practical perspective, the ability to create – to bring into existence something that doesn’t yet exist – is useful. Very useful. I created a system of fencing to contain my two boys in the backyard. This means I do not have to chase them quite so far. (Of course, inevitably, they in turn create ways of escaping!) The ability to create is so useful that as humans have evolved, the capacity for creativity has been hardwired into our DNA. We are all born creative; creativity is not just a rare gift for a chosen few, but a universal trait (Lehrer, 2012). We may no longer all be able to grip trees with our toenails\*, but we still all have the ability to create.

Beyond pragmatics, creations make lives richer. From Beethoven symphonies to refrigerator art, creations inspire and transport, evoke and awaken. And the very *act* of creating enriches lives, in the aesthetic realms and beyond. There is such pleasure and meaningfulness to be found in the artful preparation of a meal, in cultivating a garden, or in building a wooden bench for putting on shoes...

Educating our young people in ways that nurture their natural and inherent capacity for creativity is valuable.

Laurie Schell and Joe Landon of the California Alliance for Arts Education explain: “As we have moved into an economy driven by ideas and innovation, our schools must respond by providing all our students with the opportunity to develop creative skills” (2011).

From a cultural perspective, creatively activated people are valuable because they have the potential to enrich lives through their creations both pragmatic and aesthetic. This is a truism that is no more valid now than it ever has been or ever will be. It is always essential that we recognize the value of creativity for making lives worth living.

From a business perspective, creatively activated employees are valuable because they bring the potential to create things that are valuable – things, perhaps, that society desperately needs (such as pleasantly scented air-fresheners to hang around the rear-view mirror in your car). The ability to work creatively is an increasingly marketable skill. Recent findings indicate 81 percent of corporate leaders in America believe that “creativity is an essential skill for the 21st-century workforce” (Schell & Landon, 2012). Given that our world is changing so rapidly, we need people who will be able to create the things that we don’t know we need yet. As Caitlin Quinton writes in this issue of the CME, “Rather than focusing on knowledge acquisition, the best way

for schools to prepare students for an uncertain future may be to teach them to think creatively” (2012, p. 33).

In keeping with the prevailing current educational ethos of: ‘It’s important – quick, let’s measure it!’ California is working on a creativity and innovation index, a tool for schools to rate their progress in nurturing creativity:

It would quantify the opportunities in each school as measured by the availability of classes and before and after-school programs offered by and through school districts that nurture creativity and innovation in students. Examples might include visual and performing arts education classes, debate clubs, science fairs, theatre and dance performances, music concerts, film-making, creative writing, and independent research. (Schell & Landon, 2012)

Sounds exciting! However, there may be some problems here. For example, equating the *presence* of performing arts education classes and music concerts with the development of creative skills is a rather optimistic leap in logic. As Lee Willingham wrote: “we lay claim to creativity as one of the pillars of our musical educative endeavours. Yet music education, so strongly rooted in performance traditions, has resulted in the virtual absence of creative problem solving processes in its teaching and learning practices” (2002, p. xvii).

Music education has great potential for enabling young people to explore and develop their creative abilities. But it is not a given that music education will enhance creativity; that claim is false. The nurturing of creativity requires that learners create – to reproduce and replicate is simply not enough.

Admittedly, identifying what is and is not ‘creative’ is a thorny business. For me, creativity is the decision making and connection making that leads to the production of something new. Musical creating might lead, for example, to a new understanding of a piece, a new interpretation of a piece, or a new piece entirely – composed or improvised. Or, to expand a little, the musical creating may result in the transition of an under-used auto shop into a multi-player interactive musical instrument. The crucial element, in an educational context, is that learners must own the decision making and connection making involved in creating the musical product.

Pamela Burnard’s new book, *Musical Creativities in Practice*, advances a contemporary conceptualization of musical creativity. Burnard argues, powerfully, for an expanded view that recognizes the multiplicity of musical creativities and the multi-

ple aspects of authorship that contribute to musical creations. She asserts that musical creativities are “born of, and infused with, musical practices.” (p. 235.) Therefore, the ways of being musically creative are as varied as the ways of practicing music, or indeed, of being musical. And just as one can engage in music making alone, with a few others, or with many, so too can musical creating be carried out by individuals, pairs, groups, or communities. At its core, Burnard’s book presents interviews with creative musicians who engage in a broad variety of musical creativities, from improvising to interactive audio design. Burnard points out that in defining musical creativities teachers and researchers must “embrace the spectrum of creativities that songwriters, DJs, composers, artists, musicians, producers, music teachers, and learners presently engage in” (p. 261).

When the learners are engaged in musically creating – whatever kind of music creating that may be – educators can play a significant role in supporting learners’ creative work. Burnard suggests:

- allowing time for learners to talk with each other, teachers, and musicians;
- modelling various processes of musically creating, and rendering explicit what the processes entail;
- exploring a variety of musical skills and behaviours from a variety of cultures;
- embracing music industry experience and practices (p. 261);
- allowing time for extended planning sessions;
- developing a classroom ethos that encourages speculative answers to challenging questions without fear of failure; and
- inviting flexible thinking, risk taking, and the inherent freedoms that characterize improvisatory creating (p. 246).

With these strategies, teachers can help learners in the development of a multitude of musical creativities.

*Imagine: How Creativity Works*, a new book by neuroscientist Jonah Lehrer, offers further insights regarding the support of creative activities.

As Burnard indicated, a climate of creativity requires that learners can take risks and offer speculative answers without fear of failure. Lehrer asked cellist Yo-Yo Ma how he stays so ‘loose’ during performances. Ma explained that he controls his nerves by thinking of television cooking-show icon Julia Child who famously dropped a roast chicken on the floor in front of the camera. She kept smiling, picked up the chicken, dusted it off, and got on with the show. Ma’s point was that you have to welcome the first mistake. Creativity requires the expectation of failure – it is the only way to be successful.

Another of Burnard’s recommendations for enabling musical creativities addresses the importance of freedom when improvising. Lehrer describes brain scan research indicating that when musicians improvise, they characteristically deactivate the inhibiting part of the brain associated with self-control. (The dorsomedial prefrontal cortex, just behind the forehead, kicks into gear around grade four – good for teacher and parent sanity, bad for creativity. Picasso offered, ‘every child is born an artist, the problems begin when they grow up.’) Those working in the realms of improvisatory creating need to develop the ability to suppress the inhibitors that block innovative musical expression – they need to develop the confidence to create without worry-

ing about what they are creating.

For music educators nurturing creativity, Steve Jobs may be a useful role model.

Lehrer describes Jobs as a creative manager. In order to maximize the creative collaboration at Pixar studios, Jobs designed the structure of the giant workplace so that bathrooms only existed at one central location. Employees describe having ‘bathroom epiphanies’ that resulted from the prolonged travel away from workstations and conversations with colleagues encountered along the way. Jobs recognized that creativity is about connecting things, and that most of those connections come from other people.

Another useful understanding for music educators managing creative work involves the nature of collaboration. Lehrer describes a study in which social scientists Brian Uzzi and Jarrett Spiro examined 474 twentieth century musicals, analyzing the relationships between members of the creative teams (composers, librettists, choreographers, etc.). The researchers sought correlation between how well the collaborators knew each other and the success of the show. Results indicated that to maximize innovation, collaborators should know each other well (so they can find common ground), but not too well (so they don’t fall into the same old patterns of creating) – somewhere in the middle is ideal.

The primary emphasis of Lehrer’s book concerns the magical ‘eureka’ moment of insight so often associated with creativity. Lehrer explains that this epiphany results from a new connection between an already existing circuit of brain cells – the brain creates new connections from old ideas. Lehrer suggests that when creators reach a block and need a moment of insight, the best strategy is to walk away. Though it may seem logical to increase focus and concentration on the task, in fact, taking a break will likely be more effective. The idea will come when you stop thinking about it; the mind needs to wander so the quiet voice in the back of the head can be heard. Univeristy of Illinois researchers found that when undergraduate participants imbibed enough alcohol to become tipsy, they solved 30% more creative puzzles than when they were sober. The induced state caused the participants to be relaxed, less focused, and more likely to daydream – exactly what is necessary to generate a moment of insight. While the alcohol is probably not such a good idea for the music classroom, Lehrer offers an alternative. His top tip for enabling stalled creativity is to take a break. As Einstein remarked, creativity is the residue of wasted time.

\*My eldest, who is four, recently asked me why we have toenails. I told him that a long time ago we used our toenails to help us climb trees. He nodded thoughtfully and said, “You mean in the 70s?”

#### References

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