ORIGINAL THINKING AND ITS IMPACT ON INNOVATION

by Maha Kanwal

Creativity is intrinsic but it needs to be cultivated. A statement Ron Beghetto, an education psychologist at the University of Oregon, would back up. He said, “It’s not that creativity can necessarily disappear. But it can be suppressed in particular contexts”4.

“Particular contexts” can include standardized testing in schools or a false notion that questions always have a right or wrong answer. In fact, Kyung Hee Kim, a researcher at the College of William and Mary, conducted a study which found that since 1990, divergent thinking has been declining in American children while their SAT scores have been increasing1.

How long will the ability to memorize a textbook help students after they graduate high school? Specially when students pursue anything to do with science since all of it applies to real life. How can they come up with answers to problems, think outside the box, and innovate when they have not had the opportunity (or the motivation) to think like an inventor?

The answer is simple: take full advantage of the arts and its power to force anyone to use their mind creatively. Of course, there are skeptics who believe that this is not the right way to go about inspiring students to create. However, there are examples that show that art can result in the generation of fantastical ideas.

For instance, Star Trek Fans remember the Universal Translator: a device that deciphered alien languages in real-time, it underwent some changes as the franchise progressed but the concept always remained the same1. Approximately 50 years later, Google Translator was released6.

Fans will also most likely remember PADDs (Personal Access Display Devices) which were flat, smooth, touch-screen control panels used by Enterprise-D1,2. This was during the 1980s and in 2010, Apple introduced the iPad5.

Star Trek is a great example of creativity at its best with its nerdy made-up gadgets that became products millions of people use today.

Another example is Leonardo da Vinci; his journals show intricate drawings of avian flight modeled after the anatomy of birds. This was 400 years before Wilbur and Orville Wright made the first successful powered aircraft3.

Da Vinci also imagined an underwater diving suit. His design was made from leather and included a jacket (where a bulge would store air), pants, as well as goggles3. Then in the 20th century, Jacques Cousteau and Emile Gagnan built the modern scuba suit3.

Much like the creators of Star Trek, Leonardo da Vinci was visionary. He was not considered a scientist and he did not actually build the inventions he imagined. What is important is that he came up with the ideas, his thinking was beyond his time and unlike anyone from his era. Despite his talent, Da Vinci was just man. Similarly, the creators of Star Trek are just people. The only difference between them and todays youth is the creativity they achieved through their art.

For that reason, the more students practice becoming an original thinker through painting, writing, making movies or other expressive forms, the better their chance at using science to innovate and not just pass a class for the credit.

REFERENCES:

