

Creativity

“Logic will get you from A to B. Imagination will take you everywhere.” Albert Einstein.

We all strive to be more creative at work and play, but what does science offer us?

Four teams were given a creativity challenge. Kindergartners, lawyers, business school students and CEO's were given a paper bag with twenty sticks of uncooked spaghetti noodles, a yard of string, a yard of masking tape and one marshmallow inside. Each team must build the tallest possible free-standing structure to hold up the marshmallow in 18 minutes. Guess who won? The kindergartner's structures averaged 27" tall, CEO's came in at 21", lawyers 15" and business school students at 10". Why? The marshmallow is deceptively heavy. The adults treat this challenge like a meeting. They plan, strategize, struggle for dominance and talk for several minutes. The children don't discuss their plans in advance, they just do it. They collaborate, build as a team and learn from one another. The kids average 5 attempts to place the marshmallow in 18 minutes. The business school students average one. Adults think before acting, children think by acting.ⁱ What else makes adults less creative?

Working in a highly judgmental setting with a lack of control over your work decreases creativity.ⁱⁱ High stress often reduces creativity, low stress can increase it, but the critical factor is how well you cope with stress.ⁱⁱⁱ An anxious person should keep stress low to perform well.

One hundred and seventy three City of Brea employees who attended creativity training seminars increased new idea generation 55% and saved their city 3.5 million dollars with costs saving ideas. They also increased revenue by \$600,000 over 8 months.^{iv} The creativity training involved 4 training concepts.

- 1) Broaden your knowledge base.
- 2) Keep track of new ideas.
- 3) Seek out challenging tasks.
- 4) Surround yourself with interesting people and novel ideas.

To boost your creativity here are 4 other strategies. 1) Unplug from social media and devote time each day to creative thinking. It's a muscle that improves with exercise. 2) Think like a 7-year-old. Students asked to think like a kid developed more original ideas.^v 3) Reframe projects from a new perspective. Instead of

building a more powerful engine to achieve manned flight, the Wright brothers focused on developing a glider with wings that they could **control**. Their 3-axis control system of pitch, yaw and roll is the basis of all modern aviation. 4) Go for a walk. In a study of divergent thinking, (generating multiple solutions) walking boosted creative ideas 60% compared to sitting.^{vi} Steve Jobs often went on long walks in Palo Alto with his business coach, Bill Campbell.

“Walking has the best value as gymnastics of the mind.” Ralph Waldo Emerson

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ⁱ T. Wujek, “Build a tower, build a team.” TED talk (2010) based on Peter Skillman’s marshmallow challenge.

ⁱⁱ Byron, K. et al., The relationship between stressors and creativity: A meta-analysis examining competing theoretical models. (2010) *Journal of Applied Psychology*, January 2010 pgs. 201-212

ⁱⁱⁱ Lazarus & Folkman, (1984), *Stress, Appraisal and Coping*, Springer Publishing Company.

^{iv} R. Epstein et al. (2008) Measuring and training creativity competencies: validation of a new test. *Creativity Research Journal*. Feb. pgs. 7-12

^v D. Zabelina et al. “child’s play: Facilitating the originality of creative output by a priming manipulation.” (2010) *Psychology of aesthetics, creativity and the arts*. Vol. 4, No. 1, pgs. 57-65.

^{vi} M. Oppezzo and D. Schwartz, (2014) Give your ideas some legs: The positive effect of walking on creative thinking. *Journal of Experimental Psychology: Learning Memory, and Cognition*. Vol. 40, pgs. 1142-1152