

What Is Learning? Can We Learn Better than Apes?-Part 2

by Alvaro Fernandez Copyright (c) 2007 Alvaro Fernandez We continue the conversation on Learning with Dr. James Zull, Professor of Biology and Biochemistry at Case Western University and author of *The Art of Changing the Brain: Enriching the Practice of Teaching by Exploring the Biology of Learning*. ... AF: Fascinating. Given what you just said, how do you help your students become better learners? JZ: Despite the fact that every brain is different, let me simplify and say that I usually observe 2 types of students, with different obstacles to learning and therefore benefiting from different strategies. A) Students who have an introversion tendency can be very good at the Reflection and Abstract hypothesis phases, but not so at the Active Testing one. In order to change that, I help create small groups where they feel safer and can take risks such as sharing their thoughts aloud and asking more questions. B) More extroverted students can be very good at having constant Concrete experiences and Active Testing, but may benefit from increased Reflection and Abstract hypothesis. Having them write papers, maybe predicting the outcome of certain experiments or even current political affairs, helps. AF: Very useful. What other tips would you offer to teachers and parents? JZ: Always provoke an active reaction, ensuring the student is engaged and sees the connection between the new information and what he or she already knows. You can do so by asking questions such as "What does this make you think of? Is there some part of this new material that rings a wild bell for you?" To ensure a safe learning environment, you have to make sure to accept their answers, and build on them. We should view students as plants and flowers that need careful cultivation: growing some areas, helping reduce others. AF: Please give us an example. JZ: Well, an example I use in my books is that middle school students often have a hard time learning about Martin Luther and the Reformation because they confuse him with Martin Luther King Jr. We can choose to become frustrated about that. Or we can exploit this saying something like, "Yes! Martin Luther King was a lot like Martin Luther. In fact, why do you think Martin Luther King's parents named him that? Why didn't they name him Sam King?" AF: Thanks. And what would you suggest for us who want to become better learners? JZ: Learning is critical at all ages, not only in the school environment. We have brains precisely in order to be able to learn, to adapt to new environments. This is essential throughout life, not just in school. We now know that every brain can change, at any age. There is really no upper limit on learning since the brain neurons seem to be capable of growing new connections whenever they are used repeatedly. I think all of us need to develop the capacity to self-motivate ourselves. One way to do that is to search for those meaningful contact points and bridges, between what we want to learn and what we already know. When we do so, we are cultivating our own neuronal networks. We become our own gardeners. AF: Prof. Zull, many thanks for sharing your thoughts through your book, and for your time today. You have changed my brain-and probably will change the brains of a number of readers. JZ: My pleasure! ----- A final personal reflection: this Learning Cycle is very similar to what people at McKinsey & Company (my first job ever), and other strategic consulting firms, need to develop very quickly, and constitutes the core for a very successful Performance Review system. Interesting to understand the neurobiological basis for it. Brain Fitness starts with Learning. Brain and Mind Fitness means being able, and ready, to learn. Not just an Education issue, but a Health and Wellness and Fitness one.

About the Author

SharpBrains, <http://www.sharpbrains.com>, provides the best science-based information, programs and support for Memory and Brain Fitness. Dozens of publications, such as CBS, Forbes, MSNBC, Seattle Times, Birmingham News, San Francisco Examiner, New York Post, Oakland Tribune, and more, have highlighted our organization and offerings.

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