

Do Students Learn More When They Feel Better? What Does the Neuroscience Research Say?

By Eric Jensen, Brighter Brain Bulletin, March 2009 www.jensenlearning.com

I met a teacher the other day who was quite serious about her work. In fact, her position was that kids at school were not there to have fun. They were there to do the "work" of learning. Anything, (e.g. an activity or energizer,) that even hinted of the "F" word (fun) was immediately dismissed as a waste of time. Do you know anyone like this? If so, here's something you might share with them.

They (and you) might be curious about what the research says about our brain, enjoyment and learning. First of all, let's be clear about it: there are many types of learning (I have counted 14 in all) and many of them often happen non-consciously (imitation learning is an example). Second, there is no magical absorption, "sinking in", or "download" of content. Those are metaphors. Learning is ultimately an electrochemical event in the brain. Everything learned consumes resources, like neurotransmitters, proteins, glucose and calcium. One of the neurotransmitters highly involved in learning is dopamine. You may know it as the one implicated in drug abuse. But dopamine serves multiple roles. It is implicated in the *anticipation* of pleasure as well as pleasure itself. When we are in a better mood, with just the right amount of dopamine, we actually make better decisions. Too much dopamine and we make poor decisions. In the right dosages, it facilitates working memory and neural plasticity (the remodeling of synapses). You'd want to keep your student's affect level WELL ABOVE feeling bad and WELL BELOW euphoria. How do you do that? Keep reading.

As you might suspect, I'm going to remind you that good feelings in the classroom will enhance dopamine production. What is it that you can do that is behavioral; that actually bumps up the production of this special neurotransmitter? First, repetitive gross motor activities will do it, (e.g. marching, power walking, etc.). Get the movement going in your classroom! Second, succeeding at a challenging task will raise the D-levels. Third, camaraderie and team spirit can help do it. Finally, just the anticipation of pleasure can do it. Hook them in with a genuine promise of something good coming up soon! Why do all this? Enhanced dopamine levels support better working memory, enhance memory formation, and better decision-making. But here's the really amazing thing: The reverse actually works, too! Better decisions made bumps up dopamine! New skills learned bumps up dopamine. Is this awesome or not? Let's cut to the chase: everything you do in your classroom is likely to have SOME effect on the brain. Brain-based education says, "Be purposeful about it." Now, go have some fun!

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