

NEUROSCIENCE AND TRAINING

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Neuroscience is undergoing a revolution and our understanding of the brain is changing. Research continues to seek better understanding of how the brain learns, builds and repairs itself. This has enormous implications in the world of learning and behavioural change.

The brain is not like a linear computer, more like an extraordinary galaxy. Research tells us that the brain is a social organ that needs to use not just one, but as many of your senses to learn and effectively embed new skills and knowledge into your long term memory. This can range from watching, listening, thinking, moving, sensing, tasting, smelling and feeling. If the experience of learning also involves a strong emotional response, in addition to a multi-sensory experience, then the learning experience will be strongly reinforced into long term memory and easier to recall. How can blended learning solutions best work with the brain in mind?

Does this impact how effective training should be delivered?

As Sir Winston Churchill said, "I love to learn, but I hate to be taught". The brain needs to feel motivated to learn. To move from a passive to active learning state.

Using "self-directed neuroplasticity" to better facilitate your training sessions

Firstly, the most important element of smarter training is creating a safe, vibrant

learning environment to help minimise the threat responses from the amygdala.

Neural transmitters such as norepinephrine mixed with serotonin help reduce anxiety and may lead to a rise in dopamine increasing learner motivation. Serotonin helps control your memory. In other words, if you make your learning space a physically vibrant learning environment you are more likely to improve learning retention levels.

Ask yourself what you can do to create an unexpected, inspiring learning space that helps focus and energise learners.

Is your training environment set up to be more reminiscent of an old school classroom? Conjuring up for your trainees' unpleasant memories of spelling test anxiety or dreary days of detention? Are there other alternatives to theatre, U shape, classroom or cabaret layouts? What about pagoda? A puzzle room?

Harness the mind brain connection

Secondly, to help motivate your trainees' brain to focus on new information and behaviours you need to direct and increase their attention in a positive way using both their mind and body connection to create and reinforce the right new neural connections.

An effective way to reduce the sense of threat is to offer the brain a reward to counteract this. To give the brain something it yearns for such as novelty. Discovering something new and unexpected. Getting that "Aha" moment when the brain makes a positive new, unexpected connection to existing knowledge.

Raising the trainee's dopamine levels momentarily and firing new neural growth.

Fire together, wire together

Thirdly, new neural growth needs to be kept alive by paying attention to these new circuits. Repeating and practising new learned skills and knowledge in different ways to further network, strengthen and embed those new neural connections into the long term memory.

Frequent recapping through complex problem solving, re-enactment scenarios and trainees episodically flipping the 'classroom', asking questions of each other and guiding the training sessions themselves.

Imagine working your trainee's brain like a computer or virtual reality game spinning the console multiple directions to get different perspectives. Providing a drop down menu of challenges and problems to solve and rewards to win.

Neuroscience is undergoing a revolution as previously stated. It is complex and constantly revealing new and extraordinary insights into the power and plasticity of our brains.

Be prepared to cast off outmoded theories or methodologies and refresh your thinking with from this unfolding science. This galaxy of new learning awaits you.

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