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The Effect of Brain Rest on Learning

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Abstract

Brain breaks to rest the working part of the brain are necessary in all classrooms. Children have a limited ability to sustain focused attention. The time increases by age of the child from 5 minutes for a 3-year-old to about 48 minutes for a 17-year-old. (Brain balance. 2024) After which a brain rest for 3-5 minutes is required. Students return to studies refreshed when the brain breaks specifically activate a different lobe from the working brain. When students are studying mathematics, they are using the prefrontal cortex to problem solve. Playing a language word game uses the Parietal lobe or physical movement using the cerebellum shifts cognitive thinking and resets the working brain. Through the activity, oxygen floods the brain and neurochemicals are released. This increases the transmission speed of messages across brain's neurons. All brain breaks should include what I call: B, M, W- Breathing, Movement, and Water. After completing a brain rest activity, students always take 3-5 deep breaths and a sip of water.

Brain breaks change brain structure. The breaks effect cell size, cause greater connectivity between neurons, and create new cell growth in the hippocampus. (Terada, 2018) The brain at rest is definitively not idle. The hippocampus is working to make novel connections to the new information. (Yang,2012)

Brain rests impact learning by allow faster processing of information and moving the facts from the working memory to long term memory.

Keywords: Neurotransmitters, Brain Breaks, Working Memory, Cognitive overload, Amygdala hijack