Brain Signals Analysis during Meditation and Problem Solving

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Abstract

Improving performance and productivity is one of the current topics in industry. Researchers are working on many perspectives to achieve ideal results. Some of them study external factors while others focus on internal factors. Relaxation, calming down, and confidence play major roles in refining the productivity efficiency of people. The brain is the center of commands and is the decision maker. Scientists found that controlling and understanding brain signals will help people change their life for the good without the necessity of chemicals or drugs. However, the brain’s cerebral cortex structure is divided into four lobes (Frontal lobe, Parietal lobe, Occipital lobe, and Temporal lobe.) Each lobe is responsible for performing different functions. When the brain shifts from one stage to another it generates various waveforms (Beta, Alpha, Theta, Delta, and Gamma) with unique amplitudes, and frequencies. Each waveform indicates certain characteristics and details. For certain, working on internal and external factors is a great combination that makes unstoppable improvement. People that master their comfort experience life changes as a result. In this paper, we concentrate on internal factors of individuals observing their performance during activity, and analyze brain signals during meditation and solving math problems. We do this by observing signals from the cerebral cortex of the participant using electroencephalography (EEG). Mastering the subconscious leads to improving subject productivity and performance. A person can change their habits and better themselves without using chemicals or drugs. Meditation gives direct access to hidden power and forces the mind to act differently to gain strength reducing pain and stress.