ARTIFICIAL INTELLIGENCE ...

»MENTAL INTELLIGENCE«

How to influence our brain for better results

Karen was sitting at her desk, eyes closed, wearing headphones obviously listening to music.

Her manager standing next to her finally tapped on Karen's shoulder. »This is not the time for deep relaxation; we have to finish that project planning in one hour!« Karen opened her eyes. »I'm just manipulating my brainwaves for a better result, you want to try it yourself?«

What exactly was she doing? She simply listened to music with alternating acoustic signals. We know that billions of nerve cells in our brain communicate via bioelectrical impulses. When a stimulus arrives, this information is processed. Frequency fluctuations then take place. Certain frequencies are assigned to certain states of the person.

Some frequencies are particularly suitable for creative processes or for storing memories.

Here is a list of the different frequencies and their characteristics:

Gamma 100 – 38 Hz:	Peak performance, assembling specific perceptions. Measurable while performing highly concentrated work.
Beta 12 – 38 Hz:	Normal frequency band, alert, attentive, focused. Measurable while performing concentrated work.
Alpha 8 – 12 Hz	Alert but relaxed, very creative. Measurable after waking up, before falling asleep, during relaxation exercises or light meditation.
Theta 3 – 8 Hz	Dream state, subconscious is active. Measurable in REM phases, during deep relaxation or meditation.
Delta 0.2 – 3 Hz	Deep, dreamless sleep, consciousness is switched off.

According to recent studies, some frequencies can be easily changed in listening to sounds accompanied by pleasant music, alternating between the left and the right ear. These tones provide an impulse for slight eye movements to the left and right. These eye movements are found in the REM (Rapid Eye Movement) sleep phase, in which the emotional experiences of the day are processed in the brain. They also create inner balance and improve concentration and creativity. Therefore, EMDR or wingwave® music is used in some companies, for example in development labora-

tories to increase creativity or in call centers to reduce strain and tension. Especially for pupils diagnosed having an attention deficit syndrome, there are trainings using neurofeedback. Participants train to focus their concentration on a special task, for example to move a figure on a screen simply with the power of thoughts. The processes and results of these trainings are then mentally transferred in daily life at school.

Frequencies can also be changed in order to give the brain a necessary frontal brain pause. Mindfulness exercises and meditations for example have an effect on the alpha and theta states and help to relax the brain and body. This, in turn, ensures that we can get a fresh start with more concentration and creativity.

In addition to that, there are many international studies on how meditation works. Most importantly, they prove that the technique builds lasting emotional stability. At the same time, they have proved that sleep disorders, anxiety disorders, and depression can be reduced and disappear completely through regular meditation without the use of psychotropic drugs. In many cases, a positive influence of regular meditation – without medication – in lowering blood pressure has also been confirmed.

Considering the power of thoughts influencing the metabolism in any direction, we must recognize that our brain is a treasure chamber. We easily can find mental pictures that via dopamine influence the outcome of our activities - either positive or negative. For example, if we have a clear picture showing the closing of a negotiation, our brain system will focus attention and energy on this result due to a cocktail of dopamine, endorphin and oxytocin. And our rewarding system will finally help to relax and to refresh to start again.

There are a lot of simple techniques – it's definitely worth analyzing and perhaps adding some of these to your toolbox.

I would like to invite you on this trip discovering how to direct your thoughts for more well-being, health, and success in your life.

Enjoy!

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