7 Habits of Highly Effective Brains

Jonathan Jordan
Society for Neuroscience

Presenter Contact Information

Jonathan Jordan
President, Global Change Management, Inc.
Web: www.MindfullyChange.com
Twitter: MindfullyChange
E-mail: Jonathan@MindfullyChange.com
A little bit about me...

- Licensed Psychotherapist
- Began my professional career in the Himalayan Kingdom of Nepal
- State Qualified Clinical Supervisor
- Faculty Fellow, Florida State University
- President of a business & personal development firm
- Created brain-based, multi-sensory training programs for Fortune 500 companies – utilized by millions around the world
- Member of the Society for Neuroscience

“Geniuses don’t have more brain power than the average person, they just use their brains more efficiently”
Improvements In Brain-Imaging Have Led to...

Incredible Breakthroughs in Neuroscience

“As important for neuroscience as telescopes were for astronomy”

A Quick Look At Recent Neuroscience Breakthroughs
Recent Neuroscience Breakthroughs
in Plain English

Neurogenesis & Neuroplasticity

Neurogenesis...
in Plain English

- Neurogenesis (birth of neurons) is the process by which neurons are generated. Most active during pre-natal, new neurons are continually born throughout adulthood.
- Moderate physical exercise appears to enhance neurogenesis.
- Research at UT Southwestern Medical Center hints that working memory training may also stimulate neurogenesis.
Neuroplasticity... in Plain English

- Neuroplasticity (also referred to as brain plasticity, cortical plasticity or cortical re-mapping) is the changing of neurons, the organization of their networks, and their function via thinking, learning and activities.

- Neuroplasticity occurs in the brain:
  - At the beginning of life: when the immature brain organizes itself.
  - In case of brain injury: to compensate for lost functions or maximize remaining functions.
  - Through adulthood: whenever something new is learned and memorized.

Self-Directed Neuroplasticity

- Our brains are constantly changing, rewiring, making new connections between synapses. These changes are a result of the brain's neuroplasticity.

- As these brain remodels take place, we have two choices. We can let them just happen, or we can awaken "our faculties," direct the changes, and turn neuroplasticity into self-directed neuroplasticity (a phrase coined by Jeffrey Schwartz).

- When our brains are engaging in neuroplasticity without our knowledge, direction, or awareness, our brains are changing accidentally. When we are employing self-directed neuroplasticity, we are changing our brains on purpose.

- Accidental and on purpose are two very different ways of being in the world, and only one allows for autonomy and maximum performance.
Habit #1

Have a Nutritious Diet

“Your brain consumes 20-25% of all the oxygen, nutrients and energy you consume”

Food for Thought

- The Brain can only function at its best when it has enough energy and nutrition to process information
  - E.g., people with anorexia stop seeing a clear picture of reality
- A study conducted by Harvard Medical School researchers, on a group of over 13,000 women over the age of 70, found a direct link between cognitive brain function and the amount of green vegetables consumed, with those women eating the most vegetables having the greatest mental agility
- Ideally, reduce calories per day to at least 2,400 for a woman and 2,600 a day for a man
  - Eat colorful fruits and vegetables high in antioxidants
  - Natural vitamin E, vitamin C, B (B6, B12) folic acid
  - Omega-3 fatty acids
  - Avoid refined carbohydrates and saturated fats
A Few Suggested Foods

- Wild salmon is not only an incredible food for brain health, it qualifies as incredible across virtually every other health standard as well and is clearly one of the healthiest foods that one can eat.
- Cacao bean, minimally processed (not chocolate) usually in powder form.
- Acai Berries and/or Blueberries.
- Regular coffee consumption has been shown to actually reduce the risk of mental decline.

Bonus Tip

- Clean Your Teeth, Sharpen Your Brain!
- There is a correlation between dental health and mental health – the fewer healthy teeth the greater the chances of dementia.
- Dental problems increase inflammation and inflammation is the enemy of your brain (and heart).
True or False: Your Brain Can Multitask?

False

Studies show that a person who is attempting to multitask:

- Takes up to 50 percent longer to accomplish a task and
- Makes up to 50 percent more mistakes

Therefore, a person working sequentially is up to 50% faster and 50% more accurate!

Source: John Medina, author of Brain Rules

Habit #2
Focus Sequentially
Don’t Multi-Task - Do Multi-Sense
Your Brain Cannot Truly Multitask

- Recent neuroscience research proves multitasking is a myth that can greatly hinder performance.
- Psychiatrist Richard Hallowell describes multitasking as a “mythical activity in which people believe they can perform two or more tasks simultaneously.”
- The human brain is unable to consciously pay full attention to two tasks at the same time.
- We can do simple tasks like walking and talking at the same time, but when it comes to true multitasking (consciously using your prefrontal cortex), your brain just can’t do it.

If Not Multitasking, What Should I Do?

- Organize and prioritize your tasks in advance.
- Become familiar with your natural rhythms and know what time of the day you have the most energy, mental and physical, and schedule tasks accordingly.
- If possible, vary the sort of tasks you work on throughout the day – your brain functions better when it has variety.
- Schedule times during the day when you will check your e-mail and voicemail – and be strict about only checking it during those designated times.
- Create interruption-free time zones during the day to work on selected tasks – Turn of your e-mail notification, phone ringer, IM program, etc. – distractions that can waste your time and give you an illusion of being productive and important.
If Not Multitasking, What Should I Do?

Cont...

- Focus on one task at a time, complete it, then focus on the next task and repeat the process.

- Take “brain breaks” about once an hour. For example, stand up, stretch, and take a few slow deep breaths. Your brain will function better with movement and more oxygen.

Perform the above actions for at least a week then check to see whether you are more productive and accurate in your work than when you “multitasked” – you will be!

Do Not Multi-Task, Do Multi-Sense

I hear and I forget, I see and I remember, I do and I understand – Chinese proverb

Visual Auditory Kinesthetic
Habit #3

Be Physically Active

- You need physical activity, not necessarily rigorous workouts, for a healthy brain
- Moderate exercise appears to promote neurogenesis
- A 5-year study at Quebec’s Laval University found:
  - People who engaged in moderate exercise three times per week maintained more cognitive brain function than inactive people
  - People who were inactive were two times more likely to develop Alzheimer’s disease than those who engaged in moderate exercise three times per week

Movement Activates Your Brain’s Healing Power

There appears to be an interconnectivity of the brain areas that control movement, emotion and thinking. Doing activities that involve a number of these areas fully engages the effort-driven-rewards circuit of the brain and lifts depression and elevates mood.

- Kelly Lambert, author of *Lifting Depression: A Neuroscientist’s Hands-on Approach to Activating Your Brain’s Healing Power*
Habit #4

Participate Socially

- A recent study about social participation and brain health conducted by the Johns Hopkins Bloomberg School of Public Health found:
  - Women aged 65 and older who took part in mentoring youth and teaching reading saw positive changes
  - Improvements in cognitive function are strongly connected to brain-stimulating socialization
  - Staying socially active throughout life can help to maintain normal brain function and put off the onset of dementia
  - Engaging in activities with friends and family, especially those that require both physical and mental activity, can help to improve brain function and memory for years to come

Habit #5

Sleep Well - And Long Enough

- If you've been awake for 17 hours straight your performance is equivalent to having a blood alcohol-level of 0.05%
- That's the legal blood alcohol limit for driving in many countries
- Getting only 5 hours or less sleep is the equivalent of being drunk
- Studies in Canada revealed that when clocks were put back at the start of daylight savings, there was a dramatic fall in the number of road accidents

Source: Audra Starkey author of The Healthy Shift Worker
Sleep Well Cont...

- A sleep-deprived brain works harder, but accomplishes less
- Sleep deprived people do not have the speed or creative abilities to cope with making quick but logical decisions, nor do they have the ability to implement them well
- Sleep problems are almost always involved in mental disorders, including depression, schizophrenia, Alzheimer’s disease, and even strokes. And the severity of symptoms are strongly influenced by the amount of sleep a person gets, or doesn’t get
- Lack of sleep is known to cause blurred vision, slurred speech, memory and concentration loss, and even paranoia and hallucinations

Habit #6
Challenge Yourself Mentally

- Do things differently
- Activate your whole brain - use as many senses as possible
- Pay attention to your environment
- Use it or lose it
Habit #7
Have a Positive Attitude

- Attitude changes everything, including your brain
- Relax and enjoy life, laugh often...Focus away from perceived threats and toward optimism...Accept what is
- Stress is the main reason brains under perform
- Practice mindfulness and other methods of mental relaxation

Quick Recap

- Habit #1 - Have a Nutritious Diet
- Habit #2 - Focus Sequentially
- Habit #3 - Be Physically Active
- Habit #4 - Participate Socially
- Habit #5 - Sleep Well
- Habit #6 - Challenge Yourself Mentally
- Habit #7 - Have A Positive Attitude
Presenter Contact Information

Jonathan Jordan

President, Global Change Management, Inc.

Web: www.MindfullyChange.com

Twitter: MindfullyChange

E-mail: Jonathan@MindfullyChange.com