

Mindful multitasking: Meditation first can calm stress, aid concentration

June 14 2012, By Peter Kelley and Catherine O'Donnell



Research by UW Information School professors suggests that meditation training can help people working with information stay on tasks longer and also improves memory and reduces stress. Credit: Flickr user Myyogaonline

(Medical Xpress) -- Need to do some serious multitasking? Some training in meditation beforehand could make the work smoother and less stressful, new research from the University of Washington shows.

Work by UW Information School professors David Levy and Jacob Wobbrock suggests that [meditation](#) training can help people working with information stay on tasks longer with fewer [distractions](#) and also improves [memory](#) and reduces stress.

Their paper was published in the May edition of *Proceedings of Graphics Interface*.

Levy, a computer scientist, and Wobbrock, a researcher in human-computer interaction, conducted the study together with Information School doctoral candidate Marilyn Ostergren and Alfred Kaszniak, a [neuropsychologist](#) at the University of Arizona.

“To our knowledge, this is the first study to explore how meditation might affect multitasking in a realistic work setting,” Levy said.

The researchers recruited three groups of 12-15 human resource managers for the study. One group received eight weeks of mindfulness-based meditation training; another received eight weeks of body relaxation training. Members of the third, a [control group](#), received no training at first, then after eight weeks were given the same training as the first group.

Before and after each eight-week period, the participants were given a stressful test of their multitasking abilities, requiring them to use email, calendars, instant-messaging, telephone and word-processing tools to perform common office tasks. Researchers measured the participants’ speed, accuracy and the extent to which they switched tasks. The participants’ self-reported levels of stress and memory while performing the tasks were also noted.

The results were significant: The meditation group reported lower levels of stress during the [multitasking](#) test while those in the control group or who received only relaxation training did not. When the control group was given meditation training, however, its members reported lower stress during the test just as had the original meditation group.

The meditation training seemed to help participants concentrate longer

without their attention being diverted. Those who meditated beforehand spent more time on tasks and switched tasks less often, but took no longer to complete the overall job than the others, the researchers learned.

No such change occurred with those who took body [relaxation training](#) only, or with the control group. After the control group's members underwent meditation training, however, they too spent longer on their tasks with less task switching and no overall increase in job completion time.

After training, both the meditators and those trained in relaxation techniques showed improved memory for the tasks they were performing. The control group did not, until it too underwent the [meditation training](#).

"Many research efforts at the human-technology boundary have attempted to create technologies that augment human abilities," Wobbrock said. "This meditation work is unusual in that it attempts to augment human abilities not through technology but because of technology — because of the demands technology places on us and our need to cope with those demands."

Levy added: "We are encouraged by these first results. While there is increasing scientific evidence that certain forms of meditation increase concentration and reduce emotional volatility and stress, until now there has been little direct evidence that meditation may impart such benefits for those in stressful, information-intensive environments."

Provided by University of Washington

Citation: Mindful multitasking: Meditation first can calm stress, aid concentration (2012, June

14) retrieved 2 May 2024 from <https://medicalxpress.com/news/2012-06-mindful-multitasking-meditation-calm-stress.html>

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