BENEFITS OF DOODLING

Relaxation and presence
Mood regulation
Memory recall
Creativity and problem solving

THE ARTISAN LEADER

handcrafted leadership development

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What does doodling do?

Jackie Andrade; Journal of Applied Cognitive Psychology; February 2009

Doodling is a way of passing the time when bored by a lecture or telephone call. Does it improve or hinder attention to the primary task? To answer this question, 40 participants monitored a monotonous mock telephone message for the names of people coming to a party. Half of the group was randomly assigned to a 'doodling' condition where they shaded printed shapes while listening to the telephone call. **The doodling group performed better on the monitoring task and recalled 29% more information on a surprise memory test.** Unlike many dual task situations, doodling while working can be beneficial. Future research could test whether doodling aids cognitive performance by reducing daydreaming.

Reduction of Cortisol Levels and Participants' Responses Following Art Making

Girija Kaimal, Kendra Ray, and Juan Muniz; Journal of the American Art Therapy Association; May 2016

This quasi-experimental study investigated the impact of visual art making on the cortisol levels of 39 healthy adults. Participants provided saliva samples to assess cortisol levels before and after 45 minutes of art making. Participants also provided written responses about the experience at the end of the session. Results indicate that **art making resulted in statistically significant lowering of cortisol levels.** Participants' written responses indicated that **they found the art-making session to be relaxing, enjoyable, helpful for learning about new aspects of self, freeing from constraints, an evolving process of initial struggle to later resolution, and about flow/losing themselves in the work.** There were weak associations between changes in cortisol level and age, time of day, and participant responses related to learning about one's self and references to an evolving process in art making. There were no significant differences in outcomes based on prior experiences with art making, media choice, or gender.

Functional near-infrared spectroscopy assessment of reward perception based on visual self-expression: Coloring, doodling, and free drawing

Girija Kaimal, Hasan Ayaz, Joanna Herres, Rebekka Dieterich-Hartwell, Bindal Makwana, Donna H. Kaiser, Jennifer A. Nasser; Elsevier; May 2017

This pilot study is the first to examine brain activation via functional near-infrared spectroscopy (fNIRS) during three distinct drawing tasks—coloring, doodling, and free drawing. Participants engaged in each task separated by equal intervals of rest in a block design experimental protocol. Additional data included a pre- and post-survey of self-perceptions of creativity, prior experience with drawing tasks, and reflections on study participation. Overall, the three visual arts tasks resulted in significant activation of the medial prefrontal cortex compared to the rest conditions. The doodling condition resulted in maximum activation of the medial prefrontal cortex compared to coloring and free drawing; however, differences between the drawing conditions were not statistically significant. Emergent differences were seen between artists and non-artists for coloring and doodling. All three **visual self-expression tasks activated the medial prefrontal cortex, indicating potential clinical applications of reward perception through art making. Participants improved in their self-perceptions of problem solving and having good ideas. Participants found the drawing tasks relaxing but wanted more time per task.** Further study with varied art media and longer time on tasks are needed to determine potential interactions between participants' backgrounds and reward activation.