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The Task At Hand: Is Multitasking Affecting Our Health And Productivity?

The purpose of this project is two-fold: 1. To examine the efficiency at which people multitask through different ages. 2. To determine the effects of chronic multitasking at the cellular level. Subjects of different ages and gender were timed in their ability to sort playing cards into their various suits to model a single task. They were then timed in their ability to sort playing cards into various suits while answering general knowledge questions simultaneously. The difference between the two times was observed to determine efficiency of multitasking. SY5Y neuroblastoma and C6 astrocytoma were exposed to varying, high concentrations of cortisol for seven days to determine an effect (such as cell mortality or inhibition of growth) the hormone might have on the cells. Data revealed that performing two tasks at once required fifty to sixty percent more time to accomplish than only performing one task for all ages. After performing cortisol testing on neuronal and astrocyte cells, data showed no effect on C6 cells while SY5Y cells were more sensitive to the hormone and showed a differential response where the lower concentrations had fewer cells than the highest concentration. Cell mortality for control and all concentrations exposed to C6 were all under 1% which would represent natural cell death in culture dishes. Cell mortality for all concentrations exposed to SY5Y cells were approximately 20 percent. This project provides beneficial information to society by illustrating negative consequences multitasking may have on productivity and health.