

The header features the text "HYPOTHALAMIC NEWSLETTER" in a bold, blue, sans-serif font. The word "HYPOTHALAMIC" is on the top line and "NEWSLETTER" is on the bottom line. The text is centered and overlaid on a background of various green icons: a brain, a stack of books, a neuron, and a starburst. The entire header is framed by four blue L-shaped corner brackets.

# HYPOTHALAMIC NEWSLETTER

Welcome to this edition's Hypothalamic Newsletter! We will be discussing the effects of online learning on student sleep habits and the psychological effects of too much testing.

## Effects of Online Learning on Student Sleep Habits

A recent study conducted by professor of psychology Ralph Mistlberger, Andrea Smit, and Myriam Juda at SFU's Circadian Rhythms and Sleep Lab challenges an earlier belief about the reasons behind the lack of sleep among young adults. Mistlberger states, "There is a widespread belief among sleep researchers that many people, especially young adults, regularly obtain insufficient sleep due to work, school, and social activities.

## The Study

The move toward remote work and school during COVID-19 has provided a novel opportunity to test this belief." The researchers compared self-reported data on sleep habits from 80 students enrolled in a 2020 online summer session course at SFU with self-reported data on sleep habits from 450 students who took the same course in-person during previous summer semesters. The results of the study were recently published in the journal PLOS ONE. The participants of the study were asked to keep sleep diaries over the course of two-to-eight weeks, complete sleep questionnaires, and provide written reports.

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There are 37 miles of nerves in the human body.

## The Psychological Effects of Too Much Testing

### Study on Online Learning Findings

The findings were relatively surprising; one might predict that due to the decrease in frequency of early classes and work days compared to earlier semesters, students would use some of this newfound free time to catch up on necessary sleep, but this was not the case. The participants slept less efficiently, less at night and more during the day, and they did not sleep more overall despite the excessive free time gained during the quarantine.

“One very consistent finding is a collective delay of sleep timing – people go to bed and wake up later,” says Mistlberger. “Not surprisingly, there is also a marked reduction in natural light exposure, especially early in the day. The lack of change in sleep duration was a bit of a surprise, as it goes against the assumption that young adults would sleep more if they had the time.”



Standardized Testing is a burden for all students, no one enjoys it and it has a chilling effect on your mental health as well. The No Child Left Behind Act (NCLB) spawned more testing; strict penalties were in place if students did not meet certain standards of proficiency. This however means that if you fail tests you take more practice tests to do better, which as you can see is an endless cycle. Parents after school often ask their children how their day went, but they usually receive answers like “we had another test, it was boring” and as parents that's not what they want to hear. In an article by Chad Donahue from 2015 he discusses the emotional toll testing had on students. As a middle school english and social studies teacher he observes the strain, stress and exhaustion of his students. According to him he detects signs of depression and anxiety.

The human brain will triple its size the first year of life

## The Psychological Effects of Too Much Testing Continued

In fact, heightened test anxiety may affect 20 percent of school-aged children and 18 percent may experience milder forms of it. As schools have evolved over time it has added more to this already bad situation, as schools are putting an emphasis on tests and additional requirements, which puts creative ventures on the back burner. However such a test rich culture would lead to depressed and anxious students, and would ruin the fun of learning, and would flush out creativity while depleting students of their energy. Kindergartners in certain districts have to take 14 tests in a year. The brain at that young of an age is still forming and with the amount of tests they may lose their creativity and burn out early.

Experts estimate that the mind thinks between 60,000 – 80,000 thoughts a day. That's an average of 2500 – 3,300 thoughts per hour



The human brain is the largest brain of all vertebrates relative to body size