

Bonus for superior snoozing: Students who meet 8-hour sleep challenge do better on finals

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Students given extra points if they met "The 8-hour Challenge"—averaging eight hours of sleep for five nights during final

exams week—did better than those who snubbed (or flubbed) the incentive, according to Baylor University research.

"Better sleep helped rather than harmed final exam performance, which is contrary to most college students' perceptions that they have to sacrifice either studying or sleeping. And you don't have to be an 'A' student or have detailed education on sleep for this to work," said Michael Scullin, Ph.D., director of Baylor's Sleep Neuroscience and Cognition Laboratory and assistant professor of psychology and neuroscience in Baylor's College of Arts & Sciences.

While students who successfully met the sleep challenge received extra points, the "mini-incentive" was not included in the analysis of how well they performed on the finals, stressed Elise King, assistant professor of interior [design](#) in Baylor's Robbins College of Health and Human Sciences.

"They didn't just perform well because they received extra points," she said. "Students know that sacrificing sleep to complete school work is not a healthy choice, but they assume they don't have a choice, often remarking that there aren't enough hours in the day for coursework, extracurriculars, jobs, etc."

This removes that excuse."

Research participants included undergraduate interior design students and students in upper-level psychology and neuroscience classes. While the psychology classes emphasized education about sleep, the interior design students did not receive any formal training in sleep. Those who opted to take the challenge wore wristband sleep-monitoring devices for five days to ensure accurate study results.

"The students didn't need the extra credit to perform better, and they

weren't really better students from the get-go," Scullin said. "If you statistically correct for whether a student was an A, B, C, or D student before their final exam, sleeping 8 hours was associated with a four-point grade boost—even prior to applying extra credit."

The collaborative interior design study—"The 8-Hour Challenge: Incentivizing Sleep During End-of-Term Assessments"—was published in the *Journal of Interior Design*. Scullin's study of psychology students—"The 8-Hour Sleep Challenge During Final Exams Week"—was published in *Teaching of Psychology*.

Poor sleep is common during finals as students cut back on sleep, deal with more stress, use more caffeine and are exposed to more bright light, all of which may disrupt sleep. Fewer than 10 percent of undergraduates maintain the recommended average of 8 hours a night or even the recommended minimum of 7 hours, previous research shows.

But with incentives, "we can potentially completely reverse the proportion of students meeting minimum sleep recommendations—7 hours a night—from fewer than 15 percent up to 90 percent," Scullin said. "Half of students can even meet optimal sleep recommendations of 8 to 9 hours."

PSYCHOLOGY STUDENTS

In the study of psychology students, 34 students in two undergraduate courses could earn extra credit if they averaged 8 [hours of sleep](#) during final exams week or at least improved upon their sleep from earlier in the semester.

The 24 who opted to take the challenge averaged 8.5 hours of sleep, with 17 meeting the goal. On the final exam, students who slept more than 8 hours nightly performed better than those who opted out or slept less

than 7.9 hours. (The incentive was 8 points—the equivalent of 1 percent of a student's overall class grade.)

"It's worth noting that one [student](#) who had a D-plus grade before the final but slept more than 8 hours a week during finals week, remarked that it was the 'first time my brain worked while taking an exam,'" Scullin said.

INTERIOR DESIGN STUDENTS

In the interior design study challenge, students earned credit (10 points on a 200-point project) if they averaged 8 or more hours a night but received no grade change if they averaged 7 to 7.9 hours a night.

Of the 27 students enrolled in the program, 22 attempted the challenge. Compared with a group of 22 students who did not try for the extra points, very few (9 percent) averaged 8 hours or even 7 hours (14 percent).

The 8 hour challenge increased the percentage of 8? and 7?hour sleepers to 59 percent and 86 percent respectively. Students who took part in the challenge slept an average of 98 minutes more per night compared to students who were not offered the incentive but were monitored.

"Critically, the additional sleep did not come at a cost to project performance," King said. "Students who showed more consistent sleep performed better than those who had less consistent sleep. And students who achieved the challenge performed as well or better than those who did not take the challenge."

In a study of sleep and creativity done in 2017, King and Scullin found that interior design students with highly variable sleep habits—cycling between "all-nighters" and "catch-up" nights—had decreased cognition

in attention and creativity, especially with major projects. Design students customarily complete finals projects rather than final exams.

"Whether or not they 'pull an all-nighter,' when students cut their sleep, the effects are obvious," King said. "They have trouble paying attention during class, and they aren't as productive during studio time."

She noted that there is a cultural acceptability—at least in design professions—related to sleep deprivation, thanks in part to the notion of the "tortured artist" who finds inspiration in the wee hours.

"Some fields might find it unprofessional, but for many years, in design, sacrificing sleep was viewed as a rite of passage. That's something we're trying to change," King said. "Even during stressful deadline weeks, students can maintain healthy sleep habits."

"To be successful at the [challenge](#), students need to manage their time better during the day. Getting more sleep at night then allows them to be more efficient the next day," Scullin said. "By training students in their first year of college, if not earlier, that they can sleep well during finals week without sacrificing performance, we may help to resolve the 'global sleep epidemic' that plagues students in America and abroad."

Provided by Baylor University

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