

Put away your phone

Late-night texting affects sleep, grades

MESSAGING IN THE dark affects sleep, health and performance in school, says a study. Students who text for longer duration in the dark sleep only for a few hours and thus remain sleepier during the day than those who stopped messaging when they went to bed, the researchers from Rutgers University in New Jersey, US, said.

Texting before lights out did not affect academic performance, the study showed. Although females reported more messaging overall and more daytime sleepiness, they had better academic performance than males. The researchers attributed this to the fact that the girls texted primarily before turning off the light.

"We need to be aware that teenagers are using electronic devices excessively and have a unique physiology," said Xue Ming, a professor at the Rutgers University.

Adolescents should be getting eight and a half hours of sleep during a night, the researchers said, adding that de-



ficiency in sleep can affect their Rapid Eye Movement (REM) - the period during sleep most important to learning, memory consolidation and social adjustment in adolescents.

When falling asleep is delayed but rising time is not, REM sleep will be cut short, which can affect learning and memory, the researchers explained.

The effects of "blue light"

emitted from smartphones and tablets are intensified when viewed in a dark room.

This short wavelength light can have a strong impact on daytime sleepiness symptoms since it can delay melatonin release - a hormone that helps control sleep, making it more difficult to fall asleep - even when seen through closed eyelids, the researchers noted in the

study published in the *Journal of Child Neurology*.

To conduct her study, Ming distributed surveys to three New Jersey high schools - a suburban and an urban public school and a private school - and evaluated the 1,537 responses contrasting grades, sexes, messaging duration and whether the texting occurred before or after lights out. *IANS*

Pause and reflect

TAKING MORE TIME to make decisions after a mistake arises from a mixture of adaptive neural mechanisms that improve the accuracy and reduce maladaptive mechanisms, according to a study. "Our research reveals that a combination of changes in the brain slow you down after mistakes," said

Braden Purcell, a New York University researcher and coauthor of the study.

"One gathers more information for the decision to prevent repeating the same mistake again. A second change reduces the quality of evidence we obtain, which decreases the likelihood we will make an accurate

choice," Purcell added.

It has been long established that humans often slow down after mistakes, a phenomenon called post-error slowing (PES). Less clear, however, are the neurological processes that occur under PES.

The NYU researchers conducted a series of experiments involving monkeys and humans to address this question. Both watched a field of noisy moving dots on a computer screen and reported their decision about the net direction of motion with their gaze. The researchers controlled the difficulty of each decision with the proportion of dots that moved together in a single direction - for instance, a large proportion of dots moving to the right provided very strong evidence for a rightward choice, but a

small proportion provided only weak evidence.

Humans and monkeys showed strikingly similar behaviour. After errors, both slowed down the decision-making process, but the pattern of slowing depended on the difficulty of the decision. Slowing was maximum for more difficult decisions, suggesting longer accumulation of information. However, the overall accuracy of their choices did not change, indicating the quality of accumulated sensory information was lower.

The study potentially offer insights into afflictions that impair judgments, such as Alzheimer's disease and Attention Deficit Hyperactivity Disorder (ADHD). The study findings were published recently in the journal *Neuron*. *IANS*

ALIGN YOUR LIFE

Dream on

Dream analysis has been part of many spiritual practices for years. Many different techniques are used to analyse dreams and you can now even download meanings of different objects seen during the dream. So it a useful process or it is just another so called gimmick?

Dream interpretation is the process of assigning meaning to dreams. In many ancient societies, such as those of Egypt and Greece, dreaming was considered a supernatural communication or a means of divine intervention, whose message could be unraveled by people with certain powers. However there has never been any proof for that belief.

People appear to believe dreams are particularly meaningful: they assign more meaning to dreams than to normal thoughts. For example, people report they would be more likely to cancel a trip they had planned that involved a flight if they dreamt of their plane crashing the night before. However, people do not attribute equal importance to all dreams. People appear to use motivated reasoning when interpreting their dreams.

It was in his book *The Interpretation of Dreams*, first published in 1899, that Sigmund Freud first argued that the motivation of all dream content is wish-fulfillment, and that the instigation of a dream is often to be found in the events of the day preceding the dream, which he called the "day residue." However many theories about dreams were floated around by Carl Jung and Calvin S. Hall as well.

Dream interpretation has caught up with people across the world and is seen as a tool to tap into the mind or understand the events happening around you. The symbols of dreams can mean different things to different people depending on where they come from and their personal beliefs. Therefore we cannot apply same meaning or logic to all dreams for different people across the world.

That brings me to the next most commonly asked question - how can you interpret your dreams?

The answer is simple. Record or write down your dreams on a daily basis. Go through them from time to time and see if they make sense. You can also search the Internet for the dream interpretation meanings and see if they make sense.

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