

Student Activity: M9.2: The Sleep IQ Test

Purpose: Use this activity to help students identify their misconceptions about sleep.

Time required: 5 minutes

Materials: Handout 9–2

Task: Distribute Handout 9–2 to each student to fill out in class. Students may also gather at a computer lab to complete the survey online. The survey is short; so, students should be able to complete it easily at the beginning of a class period to allow for discussion afterward.

Discussion: Popular media reports of our nation’s sleep deficit are widespread, and the messages students receive from them are sometimes confusing. The National Sleep Foundation is a nonprofit organization (see sleepfoundation.org) that is “dedicated to improving health and well-being through sleep education and advocacy.” Its Sleep IQ test was part of the Omnibus Sleep in America poll, a nationally representative telephone survey of 1014 adults that was designed to test the public’s general knowledge about sleep. When this survey was given, adults averaged only 5.5 correct answers. This mean was consistent across sex, age, and region of the country. Level of education made a small difference, with those who were not high-school graduates averaging 42 percent correct versus 49 percent correct for those with education beyond a college degree. Here are the answers and brief explanations to present in class:

1. *False.* Although the body rests, the brain remains very active. As the text will indicate, the brain repairs and reorganizes itself and consolidates memories. The activity prepares us for alertness and peak functioning the next day.
2. *True.* Sleep need seems to be biological. Clearly, children need more sleep than adults. Although most adults need eight hours to function at their best, our individual needs seem genetically determined. How does one determine one’s unique sleep need? On a night you are not exhausted, try sleeping until you wake up on your own. If you feel rested, the length of time you slept provides a fairly accurate measure.
3. *False.* When you feel bored, you may notice you are sleepy. However, boredom, like a warm or dark room, does not cause sleepiness. Rather, it merely unmasks it.
4. *True.* Sleep seems as necessary to good health as food and water, because sleep is an active process that contributes to health and alertness. Without it, our body builds up a sleep debt. Rest is no substitute.
5. *False.* Snoring may signal the presence of sleep apnea that can be a life-threatening disorder. Those suffering from sleep apnea snore loudly and awaken repeatedly, gasping for breath. Fortunately, there are effective treatments for this sleep disorder.
6. *True.* Every person dreams every night. There is, of course, great variation in how much of our dreams we remember.
7. *False.* Sleep need remains unchanged throughout adulthood. Although older people may wake more frequently and sleep less, their sleep need is no less than during young adulthood. Sleep difficulties are not a normal consequence of aging, although they are not uncommon.
8. *True.* Researchers have asked thousands of respondents if they are sleepy, only to be told “no” just before the respondents fall asleep. Studies suggest that people are not good judges

of whether or why they are sleepy. When driving, one should not assume that he or she can tough it out. If you are sleepy enough, you can fall asleep anywhere.

9. *False*. The only short-term solution is to pull over and take a short nap or have a caffeinated drink. The better solution is prevention. Start out only after a good night's sleep. Loud radios fail to keep sleepy drivers alert (the same can be said of chewing gum and opening windows).
10. *False*. Although stress may be an important reason for occasional insomnia, chronic sleep disorders have diverse causes. For example, sleep apnea is caused by obstruction of the airway during sleep. Narcolepsy, marked by daytime sleepiness and sudden sleep attacks, appears to be genetic. No one yet knows the reasons for restless legs syndrome in which creepy, crawly feelings arise in the legs and are relieved, momentarily, by movement.
11. *True*. We have a circadian, or 24-hour, rhythm. This rhythm, which determines when we feel sleepy and when we feel alert, is set by light and dark cycles. When we travel across time zones, the light and dark cycles change and our circadian rhythm adjusts. For those working a night shift, the light and dark cycle does not change, so the rhythm does not adjust. Regardless, we are most likely to feel sleepy between midnight and 6 A.M. No matter how long you work a night shift, sleeping during the day remains a challenge. Shift workers in particular should avoid caffeine during the last half of the day, block out noise and light at bedtime, and stay away from alcohol and alerting activities before bedtime. (Note: The text chapter seems to leave more room for shift workers making a successful adjustment. For example, it states that, because our natural circadian rhythm may be a 25-hour cycle, shift workers "adapt better to progressively later shifts than to earlier ones." Moreover, studies of shift workers reveal that the manipulation of light—perhaps even light to the back of the knee—helps reset our biological clocks.)
12. *False*. Sleep disorders do not disappear without treatment. Treatment may be behavioral (for example, avoiding alcohol before bedtime and losing weight for victims of sleep apnea), pharmaceutical, surgical, or some combination thereof. Allowing a sleep disorder to go untreated worsens the quality of life and can lead to accidents and even death.

Source: Hellmich, N. (1999, March 22). Effects of skipping sleep can be a real eye-opener. *USA Today*, p. 6D.