STUDENT ASSIGNMENTS

1. Visit the Web site of National Resource Center on ADHD (http://www.chadd.org/ ) to obtain information on attention-deficit hyperactivity disorder (ADHD). Perform the following tasks:
   a. Select and read the topic: “Adults with ADHD: Symptoms and Causes”
   b. Select and read the topic: “Parents & Caregivers of Children with ADHD: Evaluation and Treatment.”
   c. Write a brief report based on your understanding of the articles.

2. Search the Internet for additional information about attention-deficit hyperactivity disorder (ADHD). Write a brief report covering the following points:
   a. How common is ADHD?
   b. How does wearing eyewear help to concentrate?
   c. What are the major differences between ADD and ADHD?
   d. What are stimulant and non-stimulant medications? Which is more effective and why?

3. Using the Internet, gather information about the latest research developments in the field of ADHD. Write an article focusing on the following points:
   a. Neurological functioning in ADHD and other disorders such as schizophrenia
   b. Long-term treatment for ADHD
   c. Role of methylphenidate and clonidine
   d. ADHD and alcohol abuse
   e. Behavioral manifestations in ADHD and creativity

4. Using the Internet, research the relationship between the default mode network and mindfulness meditation.
   a. Find examples of how meditation affects attention.
   b. Find examples of how meditation might change the brain.
   c. Describe the role that meditation researchers prescribe to the default mode.

STUDENT ACTIVITIES

Bear et al., Neuroscience: Exploring the Brain, 4th ed. Instructor’s Material  p.1
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1. Perform the following experiment with your fellow students to observe the general theories of attention. Use a computer to show some letters in quick succession, each letter overwriting the previous letter.
   a. Choose two target letters, for example, M and N. Ask your observer to watch the complete sequence and indicate which of the target letters are in sequence. Construct the sequences to systematically vary the separation between two target letters. For example, if the target letters are M and N, construct the sequence such that M and N have five letters between them and the sequence reads . . . MBKLQMN . . . Try different separation lengths.
   b. Note down how many observers detect the target letters correctly and the instances when they make mistakes.
   c. Visit the Web site CogLab: Attentional Blink (https://coglab.cengage.com/labs/attentional_blink.shtml) for more information about this experiment. Compile your observations and compare them with the theories of attention proposed by Steven Petersen and his colleagues.

2. Using Internet-based research, find fMRI or PET images of brain areas involved in directing selective attention in humans. Seek help from your instructors or make an appointment with an expert to read the brain images and understand the areas involved in attention. Record your observations. Compare these brain images with the images of brains involved in listening, learning, and speaking. Note down your observations in the form of a report.

3. Follow this link and engage in the selective attention task: http://youtu.be/vJG698U2Mvo. Describe what studies like this tell us about the function of attention in the brain?