**Psych-Sim Online: Hemispheric Specialization**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Course/Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Instructor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

This activity describes what researchers have learned about the special abilities of the left and right sides of the brain. You will learn how information is transmitted to these two hemispheres and about the unique function of each.

Watch the following videos:

* The left vs. right hemisphere: <https://www.youtube.com/watch?v=FsM1IQ9d2pw>
* Split-brain patient Joe (part 1): <https://www.youtube.com/watch?v=zx53Zj7EKQE>
* Split-brain patient Joe (part 2): <https://www.youtube.com/watch?v=u9u6cQYcOHw>

**Hemispheric Connections**

1. What is the name of the band of fibers connecting the left and right hemispheres of the brain? What is its function?
2. Each hemisphere is primarily connected to the opposite side of the body. This means that a touch on the *left* hand would be registered in which hemisphere?
3. When sound waves enter the *right* ear, which hemisphere receives the primary information?
4. This crossover pattern is also true *in part* for the visual pathway. When light enters the *left* eye, which hemisphere receives the information?

**Split-Brain Research**

1. Briefly explain split-brain research.
2. A split-brain patient can name an unseen object placed in their *right* hand, but cannot name objects placed in their left hand. What does this suggest about the language abilities of the two hemispheres?
3. Since the right hemisphere process spatial and temporal information (i.e., the “when” and the “where”), if a split-brain patient is blindfolded and a fork is placed in his or her *right* hand, how would you guess that the patient would respond?
4. Since the left hemisphere process language and speech, if a split-brain patient is blindfolded and a fork is placed in his or her *left* hand, how would you guess that the person would respond?
5. In an additional experiment, words are flashed briefly to the left or right visual field of the split-brain patient. When the word appears in the left visual field, will the split-brain patient be able to read the word?
6. Why is it that normal humans (with an intact corpus callosum) can name objects placed in either hand and easily read words flashed to either visual field?