



## Being Active and Using the Passive

### A Passive Voice Exercise based on Wendy Suzuki's Talk

#### *"Exercise and the Brain"*

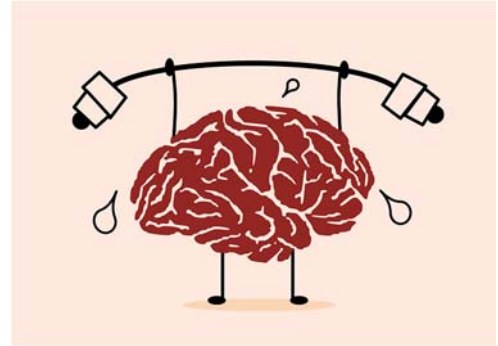
<https://www.youtube.com/watch?v=LdDnPYr6R0o>

### 1 Before You Watch

#### Discuss

Discuss the following questions in groups or as a class.

1. What is physical *exercise*? What different kinds of exercise are there? Which is your favorite? Why?
2. How do you think exercise might affect the brain?
3. Do you think it would affect your learning if you spent the first 5 minutes of your classes exercising? In what ways?



#### Vocabulary Preview

Circle the correct definitions.

1. *cognitive*
  - a. difficult
  - b. unique or unusual
  - c. related to thinking or understanding
2. *fitness*
  - a. a piece of equipment in a science lab
  - b. one's level of physical strength or stamina
  - c. one's level of motivation
3. *aerobic*
  - a. thick
  - b. related to air travel
  - c. related to heart and lung strength
4. *benefit*
  - a. advantage
  - b. academic intelligence
  - c. an increase in pay
5. *cells*
  - a. the smallest parts of a living body
  - b. exercises that strengthen the body
  - c. small quizzes that a teacher gives to students

6. *enhance*
  - a. improve
  - b. motivate
  - c. decrease
  
7. *decline*
  - a. increase
  - b. decrease
  - c. stay the same
  
8. *the elderly*
  - a. children
  - b. students
  - c. people who are old
  
9. *creativity*
  - a. patience
  - b. the ability to work fast
  - c. the ability to use one's imagination
  
10. *the bottom line* (idiom)
  - a. the floor
  - b. the most essential point
  - c. the last person in line



## 2 After You Watch

Watch Wendy Suzuki's talk "Exercise and the Brain" and take notes (<https://www.youtube.com/watch?v=LdDnPYr6R0o>). After you watch, answer the questions below. Watch the video again (and consider turning on the captions) if necessary. You might also want to stop the video, discuss certain points, consult a dictionary, etc.

- a. Which elements of the brain are affected by exercise? Check (✓) the answers.

cortex                       hippocampus                       neurons

- b. According to Prof. Suzuki, which abilities are helped by exercise? Check (✓) the answers.

1. cognition

It is improved by exercise.

It might be improved by exercise.

It was not discussed.

2. learning memory

It is improved by exercise.

It might be improved by exercise.

It was not discussed.

3. creativity

It is improved by exercise.

It might be improved by exercise.

It was not discussed.

4. patience and persistence

It is improved by exercise.

It might be improved by exercise.

It was not discussed.

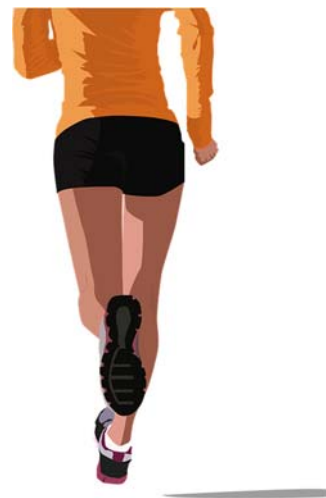
### 3 Language Focus: The Passive Voice

**Part A.** First, review Section 5 (Using Passive Voice) in the *Developing Details* card. Then, in each sentence below, identify the bolded verb as either *active voice* or *passive voice*. Circle your answers. The first two have been done as examples.

- |   |               |                |
|---|---------------|----------------|
| 1. Wendy Suzuki <b>went</b> to college at UC Berkeley.  | <u>Active</u> | Passive        |
| 2. She <b>was taught</b> by Dr. Marian Diamond.   | Active        | <u>Passive</u> |
| 3. Dr. Diamond <b>was</b> a well-known researcher of the brain.   | Active        | Passive        |
| 4. Wendy <b>was</b> first <b>inspired</b> to become a neuroscientist by Dr. Diamond.  | Active        | Passive        |
| 5. Later, Dr. Suzuki <b>took</b> an exercise class called “Intensati” at her gym.   | Active        | Passive        |
| 6. The Intensati classes <b>were led</b> by Patricia Moreno.  | Active        | Passive        |
| 7. In Intensati classes, yoga, dance and kickboxing <b>are combined</b> with shouting motivational statements such as “I am strong!”                | Active        | Passive        |
| 8. Dr. Suzuki <b>was motivated</b> by these classes and also noticed that she was able to write more easily after her workouts.                     | Active        | Passive        |
| 9. She <b>wanted</b> to motivate her own students in the same way.  | Active        | Passive        |
| 10. She also wanted to study whether academic performance <b>is improved</b> with exercise.   | Active        | Passive        |
| 11. She found that exercise <b>improves</b> cognition and memory.   | Active        | Passive        |
| 12. It <b>has not</b> yet <b>been shown</b> how exercise affects creativity, but this relationship <b>is being studied</b> now in Dr. Suzuki’s lab. | Active        | Passive        |
| 13. Dr. Suzuki <b>will not be surprised</b> if she finds a strong connection between aerobic exercise and enhanced creativity.                      | Active        | Passive        |

Finally, for each of the passive constructions above, circle the past participle and underline all forms of the verb *BE*.

Example: She was taught by Dr. Marian Diamond.



**Part B.** Complete the sentences with the verbs from the box. Use the past participle form of the verb in order to form the passive voice. The first one has been done as an example.

follow	produce	engage
call	tell	raise

1. The outer covering of the brain is called the cortex.
2. When rats **were** \_\_\_\_\_ with lots of toys and companions, their cortexes were thicker.
3. In Dr. Suzuki's classes, a 1-hour workout is \_\_\_\_\_ by a 1.5-hour lecture.
4. The students laughed nervously when they **were** \_\_\_\_\_ that they were going to have to yell positive affirmations in class.
5. The students **were** \_\_\_\_\_ and asked lots of questions.
6. New cells **are** \_\_\_\_\_ in our hippocampus due to exercise.

**Part C.** Complete the sentences with the words from the box. Words may be used more than once. Some items may have more than one correct answer. The first one has been done as an example.

is	will	be	being	may
are	was	has	been	can



1. The birth of new cells is **enhanced** by aerobic exercise.
2. Creativity and imagination \_\_\_\_\_ **supported** by the hippocampus.
3. If the hippocampus \_\_\_\_\_ **damaged**, one's ability to imagine new situations \_\_\_\_\_ **harmed**.
4. It \_\_\_\_\_ **shown** that exercise benefits memory in the elderly population.
5. Creativity \_\_\_\_\_ **improved** by exercise.
6. Exercise's impact on creativity \_\_\_\_\_ **measured**.
7. This impact \_\_\_\_\_ currently \_\_\_\_\_ **researched** in Dr. Suzuki's lab.
8. This research \_\_\_\_\_ **begun** last year by Dr. Suzuki's team.

#### 4 Writing

Write about one or more of the following topics.

1. How are *you* affected by exercise? Is your attention, energy or mood affected? Describe your observations.
2. Should classroom instruction/language instruction include exercise? If so, how should it be included?
3. How is your learning affected by other factors? For example, is your ability to succeed in school impacted by your home life? By your job? By your personal relationships? By the amount of sleep you get? Explain.

#### Hot Tip

- Notice the verb tenses in the questions. Are they passive or active?
- Before you begin writing, review Section 5 in your *Developing Details* card to help you use the passive voice appropriately and correctly.

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