

# the Facts

about

## NEUROMYTHS

What is a "neuromyth"?

Neuromyths are common misconceptions about the brain.

Teachers with some knowledge of the brain are likely to believe in at least one neuromyth (maybe more!)



### What are some examples of neuromyths?

#### Neuromyth

#1

#### THE BRAIN IS 'HARDWIRED'.

**truth:** The human brain has the ability to change throughout life as a result of behavior, environment, emotions, thought, etc. This is called Neuroplasticity.



#### Neuromyth

#2

#### THERE ARE CRITICAL PERIODS FOR LEARNING.

**truth:** There are no critical periods for learning, but there are "sensitive" periods of time in which learning a new skill is easier.



#### Neuromyth

#3

#### EVERYONE HAS A LEARNING STYLE.

**truth:** Research shows that students matched with their identified learning style did not perform better than students grouped by ability. Rather than focus on learning styles, we should explore our preferences through self-reflection on an on-going basis.



#### Neuromyth

#4

#### LEFT BRAIN vs. RIGHT BRAIN

**truth:** With rare exceptions, everyone uses both sides of their brain. Joined by the corpus callosum, both hemispheres work together and share information via neural networks.



#### Neuromyth

#5

#### WE ONLY USE 10% OF OUR BRAIN.

**truth:** Though we use different parts at different times, all recent studies show that we use 100% of our brain.



[Click here for more facts on neuromyths!](#)



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#### References:

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Dekker, S., Lee, N.C., Howard-Jones, P., Jolles, J. (2012). Neuromyths in education: Prevalence and predictors of misconceptions among teachers. *Frontiers in Psychology*, 3, 1-8.