

In this lecture I will be demonstrating how I teach about learning and the brain when I am teaching my Seeing My Time program. I use this model in discussions with both students and adults. I draw on a white board as I give my lecture. I recommend that you take your "notes" with a similar drawing.



So, what is learning? What happens in our brain when we learn? First, here's how I draw a brain. It looks a bit like a lima bean, but you get the idea.

As we learn, it is important to realize that the brain physically changes. Your brain has physically changed since this morning, which is pretty amazing to think about. How does that change happen?

Let's start with neurons, or our brain cells. Here's how I draw neurons. They don't actually look like this. There are many different kinds and shapes of neurons. But they all have a cell body and structures called dendrites, which look a bit like tree roots. Dendrites transmit information between the neurons. Your brain has billions of brain neurons.

When you were a small child, you learned about triangles. You learned about triangles because you played with them. You had triangle shaped blocks. You had puzzle boards where you had to fit in the triangle shape. Your mother may have read you one of those "shape books" where she would ask you to point at the triangle. Then your kindergarten teacher told you, "Circle the three red triangles." Your brain was thinking: Humm, these triangles must be important. People keep talking about triangles. So in your brain you have neuron networks devoted to all that you know about triangles.



Later on you were introduced to this shape, the three dimensional triangle, the pyramid. Your brain did this: "Oh! This new idea is a little like the old idea of triangles that I already know about." So, at the most basic level, in order to learn something "new," you have to be able to connect it to something "old" that is already stored in your brain.

New learning requires a foundation of prior knowledge or learning. Over time you will develop neuron networks connected to all of your new learning experiences.

What you also need to know about these neuron networks of stored information, is that if you don't USE the stored information, you will lose it. Eventually it will go away.

For instance, back in middle school and then in high school geometry, I learned a lot about triangles. I knew the names of different kinds of triangles. But today, since it has been a really really long time since I've done geometry I don't remember the definition of an isosceles triangle. That neuron network is gone from my brain.

To remember something, to get it solidly into our brain requires a great deal of repetition and practice to keep those neuron networks working quickly and smoothly. This is why professionals in all fields practice fundamentals to keep their skills sharp. Students often think that if they "learn" something one day. They are "done" with that information. NO.... you must practice and review to have quick access to past knowledge.

In summary, learning is connecting new information to old information already stored in our brain. And in order to not forget new learning, we have to practice and review, practice and review and practice and review.



We are at the end of our short demonstration video. Pause and record your key idea and consider how you could use this model to teach about learning.

Thoughts for Using this Information