

# The Natural Human Learning Process (NHLP)

CAN YOU GUESS HOW MANY NEURONS you have in your brain? Brain scientists say that the human brain has one or two hundred billion nerve cells (neurons) and approximately 40 quadrillion connections (synapses) among them. They say this makes the human brain, which is a three-pound, soft, squishy organ, “the most complex object in the universe.”\*

The human brain, through human history, has created and made everything human beings have ever invented and produced. Fortunately, you do not need to know about all the vast complexities of the brain to learn well. You can learn some things about your brain that will help you be a more confident, successful learner and creator. Your brain was born to learn; therefore, you are a natural-born learner. It is important to know these major points about learning:

1. Your brain was born to learn, loves to learn, and knows how to learn.
2. You learn what you practice.
  - ▶ Practice is making mistakes, correcting mistakes, learning from them, and trying over, again and again.
  - ▶ Making and learning from mistakes are a natural and necessary part of learning.
3. You learn what you practice because, when you are practicing, your brain grows new fibers (dendrites) and connects them (at synapses) into neural networks.
4. Learning takes time because your brain needs time to grow and connect dendrites, synapses, and neural networks.
5. If you don't use what you learn, you can lose the new learning. Newly formed dendrites, synapses, and neural networks can begin to disappear if you don't use them—if you don't practice or use what you have learned. They just get absorbed into the brain tissue and are not stabilized.
6. Your emotions affect your brain's ability to learn, think, and remember.
  - ▶ Self-doubt, fear, and other negative emotions can prevent your brain from learning, thinking, and remembering.
  - ▶ Confidence and interest help your brain learn, think, and remember.

Research with more than 10,000 students and teachers across subjects, ethnicities, genders, ages, and levels of education has found, thanks to our amazing brain, that there is a natural human sequence of stages of learning:

1. motivation (wanting to or having to learn something)
2. practice (trying it)
3. more practice (improving, gaining confidence)
4. more practice (more understanding, some success)
5. more skill (more success, becoming natural)
6. mastery (able to teach it, able to build on it)

This is the natural human learning process (NHLP). This research has found that every group, without exception, reports three to six stages. When fewer stages are reported, the middle stages usually have been reported as one or two stages of practice and/or the last stages have been reported as one stage of skillfulness, mastery, and teaching.

## See the NHLP in Action

Think of something you learned to do well outside of school. It could be a sport, a hobby, an art, driving a car, something around the house, a people skill, maybe something you did when you were younger but don't do anymore. Think back to before you knew how to do it. Then think how you went from there to knowing how to do it. Write down some notes about how you got from not knowing how to do it to being good at it—maybe not the world's greatest expert, but pretty good.

1. If directed by your instructor, get together with a few others in your class, or complete the process by taking notes. Describe the thing you are good at. Then, if possible, share and compare in the group how everyone learned his or her thing.
2. Now share and compare with the whole class. What happened at the very beginning of learning your new thing? Your instructor will record your answers. This will be Stage 1.
3. Then what happened next? Share and compare; then your instructor will record your answers. This will be Stage 2.
4. Then what happened next? Share and compare; your instructor will record your answers. This will be Stage 3.
5. Keep answering what happened next until there are no more stages to report.

Did you all learn your different things pretty much this same way? Maybe not every word in this exact order—but pretty much in a similar way? More than 10,000 people have said they learned this same way. So just remember that learning takes time and practice.