

How Does the Brain Learn Best?

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A great deal of information has been compiled on the workings of the human brain over the last forty years. This new information has been taken into account by neuroscientists and educators who have used it to reveal practical insights to apply to classroom teaching practices. Teachers can become more effective in their work by understanding the ways in which the brain stores, retrieves, processes and senses information.

The most important thing that anyone needs in order to learn is attention. There are specific areas of the brain that mediate attention. However, neural systems fatigue quickly. They can become less responsive after sustained activity of only three to five minutes. This is similar to the way other muscles in the body require rest after lifting weights. The good thing is that these neurons can recover within a matter of minutes. The way to get around this fatigue is by stimulating the neurons in repetitive and patterned ways instead of in sustained continuous stimulation.

When someone listens to the teacher telling them something, they use one neural system. When they are told about another concept that relates to that fact, they use a slightly different neural set that is functionally connected to the first neural system. Other neural systems are activated when they are told a short vignette that relates to the concept. All of these neural systems are interrelated and important for learning. Students learn faster if they create memories in all of these neural systems. This is because facts can seem empty when they are not linked to concepts and context.

The child's brain will seek novelty when she is involved in a safe or familiar situation, as she is in most classrooms. Her brain will fatigue in a few minutes if she only hears dry factual information. The brain can only tolerate between four and eight minutes of completely factual lecturing before it craves and seeks some other stimuli. This stimuli can either be internal or external in nature. If that novelty stimuli isn't provided by the

teacher, the student's mind will seek it from somewhere else. continuously presenting the same type of information, be it facts, concepts or anecdotes, will always produce this effect of fatiguing the brain. This will result in the child not learning very much. She will also fail to enjoy learning and anticipate new lessons. A good lesson needs to include all three types of information. However, it's important for teachers to put these together in the right ways. This is called the bob and weave method of lecturing.

The bob and weave lecture is effective because it moves to and fro between the neural connections. This technique allows the interconnected neurons to be woven together. These neurons are usually interconnected when people are out in the world. People move from neural system to neural system like exercisers in a gym move from one machine to the next. In teaching, the students require the same rotation from one type of information to the next in order to stay focused and engaged. this means that the teacher needs to engage his students with stories that can engage them emotionally. Doing this activates and prepares the brain's cognitive parts and gets them ready to store information. It is easiest to digest information when the brain has some emotional seasoning, such as humor, sadness, empathy or fear. All of these emotions make the facts easier for people to swallow. Next, the teacher can give his students a fact that links into some of the related concepts. After that, he can go back to telling the narrative and help his students to make a connection between the story and the concept. Then, he can go back to introducing another fact and reinforcing his concepts. Following that, he can go back to finishing his story. This is the bob and weaves teaching method. The teacher keeps student's brains working at their full capacities by weaving in and out of narratives, concepts and facts.

Humans love to hear stories and learn new things. Teachers just need to use the bob and weave teaching method to keep them completely interested.