A WEEK IN Learning

TRAINING YOUR MEMORY

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Pop Quiz:
What is the chemical symbol for Tin?
Who was the 12th president of the United States?
What year was the lightbulb invented?

Without the assistance from Google or Siri, there are probably many of us who can't answer these off the top of our heads. Why? We have encountered this knowledge throughout elementary and high school, yet the answers weren't at the front of our minds to recall. This loss of memory doesn't just apply to what we were introduced to in school – failure of retrieval happens with important information we use every day. (Not that the periodic table is useless knowledge. Don't tell my 6th grade teacher, Mrs. Welty, that either.)

In personal and professional settings, we are constantly activating our memory. Depending on the task and situation, it could be difficult to retrieve information we once learned. This is typical in the workplace, especially in training. To better understand retrieval, and how it applies to us professionally, let's first discuss the different functions of memory.

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- Trisha Martin

The Basics of Memory

Although there are numerous moving parts when it comes to memory, it's more effective to focus on the basics. Simply put, memory has three main processes: encoding, storage, and retrieval. For encoding, new information is formed into a mental representation that is ready to be stored. The encoded information, then, is stored and maintained in a memory. Retrieval, of course, involves bringing the information back to conscious awareness. This is easier said than done, though. It would be great if we could be a human sponge, absorbing everything we are introduced to; we just aren't built to store that much. However, for the information we need to remember, there are stages within the memory process that require a lot of work from our end.

How is it Stored?

When new information is encoded properly, the storage process will first place it in sensory memory. Sensory memory (controlled through our five senses) is our shortest memory storage, and lasts less than a second. Our brain will allow a certain amount to pass through to our short-term memory. An example of this would be the ability to remember what something looked like after only observing it for a brief second. Short-term memory (active memory) can be described as what we are currently aware of at this very moment,

and is stored for about 20-30 seconds. Long-term memory isn't technically 'active'. However, the information stored can be retrieved at any point, because our long-term memory has an unlimited amount of storage (although other factors, such as time, can affect the retrieval process).

Application in the Workplace

Training involves **a lot** of information retention, whether you are just starting in your role, leading a new team member, or simply learning a new skill. Our struggle in training directly relates to how information can be taken from short-term memory, to long-term memory. Many professionals have heard of the dreaded 'forgetting curve' and it exists in and out of the workplace. Hermann Ebbinghaus discovered that there is a drastic decrease in memory retention when learning is not reinforced. 50-60% of new information is lost within one hour of exposure, and up to 90% is lost within 30 days.

The term 'reinforce' is subjective though, which causes a problem for those trying to learn on the job. When attempting to retain or train, some resort to 1) a quick refresh of the material or 2) exposing the material for extended amounts of time (cramming). Research has shown that both of these routes are not effective in transferring any learned information from short-term to long-term memory.

To increase memory retrieval, and properly encode and store new information, consider some of these research-based techniques:

Spacing Effect: New information can be successfully transferred into long-term memory through spaced out learning events. Instead of cramming material in long, continuous time masses, introduce yourself to the new subject in short intervals, repeatedly.

Context-Dependent Retrieval: Studies show that it is much easier to recall information when you are placed in the same environment where the encoding and storage process took place. So, if you know you will be working in a specific area most of the day, make sure your learning is taking place there (and is being reinforced). A good depiction of this is when we take tests in schools. Students tend to forget a lot of the material on a test if they are taken out of the classroom.

Self-Reference Effect: This phenomenon involves encoding new information with 'deep processing' and 'elaborate rehearsal' by relating the material to yourself. For example, imagine that you are trying to remember a specific number sequence. Relating them to a familiar number, like a favorite month or birthdate, will make it easy to store in your long-term memory.

Overlearning: Even if you feel confident in any new material learned, over-exposure will only increase the likelihood of it storing in your long-term memory.

According to neuropsychologists, you probably will forget over half of what you just read. If I did anything right in this article, I hope you walk away with at least: more awareness around the importance of reinforced learning, and a few techniques that can help along the way.