Memory: How it Works and Why We Forget - Transcript

Link to Video on YouTube

Have you ever had a test where you just couldn't remember how to answer the questions? You're definitely not alone.

Remembering information and how to apply it in different situations is an integral part to your success in university. Let's figure out how your memory works and how you can use it to optimize your learning.

There are three processes involved in memory: Encoding, Storage, and Retrieval.

Let's say that you need to remember Albert Bandura and his contributions to observational learning.

First, you need to pay attention to this information. This allows you to encode it.

You also need to retain information. Your brain stores it in your short-term memory. If you actively rehearse it, Bandura, Bandura, Bandura, then it will stay in your short-term memory and you can work with it. Depending on how well you encoded the information, it can decay or be stored in your long-term memory.

It's great to know that Bandura had contributions to observational learning, but can you prove it on a test? The third memory process is retrieval. From the depths of your long-term memory, you pull up information so that you can use it.

But what if you can't remember that information? There could have been a problem with forming the memory when you encoded it. Were you multi-tasking when you were

trying to remember who contributed to observational learning? Checking your social media, talking to other people, or just doing other things at the same time divides your attention. If you don't pay attention to the things you're trying to remember, you won't encode it. Technically that means that you can't forget that memory because it never existed.

Let's say that you paid just enough attention to encode the information. This could have shallow processing, meaning that you only remember superficial details about the information, like the font that it was written in or what your prof sounded like when they said it. You'll need to pay more attention if you want to keep this memory longer. When you pay attention to it, identify what the information is. For instance, Bandura theorized that people learn by observing others. You see the consequences of their behaviours and you can copy them if you liked the outcome. And you'll know not to copy their behaviours if they were punished. Bandura also conducted an experiment with Bobo dolls to show how adults can model aggressive behaviours for children. Learning this extra information about Bandura highlights its importance and it'll help you remember him better.

Do you want to know what will really make this memory stick? Make it personally relevant and interesting! Maybe you're a big music fan and making up a band name, like Bandura and the Bobo dolls, helps you to remember some of Bandura's key research.

Even with good encoding, sometimes we just can't access those memories! If there's a mismatch between how you encoded the information and how you need to retrieve it, it can be harder to remember. Say you had a short answer test, but you studied for it like it was multiple choice. It'll be harder for you to retrieve information if you were focusing only on recognition rather than recall. It might help to have a cue but really, you need to study the way you are going to be tested. When the encoding and retrieval pathways are similar, it'll be easier to access those memories.

Sometimes memories just fade with time. This process is called decay. In 1885, a scientist named Ebbinghaus published a paper about how long our memories last. In

the experiment, he made himself memorize a bunch of nonsense syllables and then recall them over time. Ebbinghaus made what we call, the “forgetting curve”. He concluded that we forget things quite quickly after learning them. However, it’s important to note that this curve shows what happens to information you don’t rehearse after learning it.

Time may have an impact on forgetting, but really you need to use the learning, or lose it.

So the next time you’re class, pay attention so that you can encode the information. Elaborate on what the information is and why it’s important. Make it personally meaningful so that the memory will stick.

Most importantly, make sure you practice! Retrieve the memories from your long-term memory. Study the way you will be tested and keep using what you learned.

Want to know more about how you can improve your memory? Check out our video on memory strategies, take a look at some other resources included in the links below, and get some tips for studying smarter.