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Optimizing Learning in College: Tips from Cognitive Psychology



Principle

Durable learning is about being able to understand and recall what you learned, so practicing recall is the best study technique.

Quotes

“One of the most powerful principles of effective learning is known as spaced practice.”

“Answering questions beforehand activates any related knowledge you have about the topic and makes it easier to connect new information to what you already know.”

So What - Application

Because durable learning is about being able to understand and recall what you learned, the best tips for really learning something is to practice remembering it.

Quiz yourself.

Take practice tests.

Write yourself questions.

Answer questions before you read.

Rereading and highlighting create overconfidence because it seems familiar, but can you call it up when you need it?

Spaced learning, quizzing yourself, and active reading create better learning .

The Research Story

Three researchers from Minnesota and Missouri used existing research in Cognitive Psychology to create a guide for how to learn in a college class.

Reading Tips:

Tip #1: Slow down and read to understand.

Tip #2: Answer questions before you read.

It might seem weird to answer a question you don't know yet, but it causes your brain to call up what you do know related to the topic, so your brain then connects your reading to what you already know.

Tip #3: Don't just highlight. Write questions as you read.

It creates deeper thinking and serves as a study guide later. Add questions like “Why is this true?” “What parts of this page are new to me?”

Practice Remembering:

Tip #4: Summaries. Don't write summaries of what you read.

It takes too long and is not that effective. After reading a chapter ask yourself to recite what you learned from memory. Then review the chapter and see what you missed. Trying to remember something, failing, reviewing, then remembering again creates long-term learning.

Tip #5: After class, try to jot down notes you just took from memory.

Tip #6: Quiz yourself.

Tip #7: Practice tests practice recall and denote what you don't remember.

Tip #8: Don't re-read

Rereading creates over-confidence - it seems familiar so you think you know it, but you can't pull it from memory.

Taking Notes Tips:

Tip #9: Consider writing instead of typing notes on laptop.

Writing makes you think more. Typing gets more verbatim notes down to review later. So it depends on if you really will go back to your notes later. Write to remember, type to capture it all. Also, laptops can be distracting. Can you type without going to the internet?

Tip #10: Get slides ahead of time if the professor uses slides.

Study Tips:

Tip #11: Space out your studying.

Read before class, review notes after. Touching the material often creates deeper, longer-lasting learning.

Tip #12: As you review notes, write down questions you have.

Tip #13: Study for tests a little every day rather than cramming.

Tip #14: Sleep & take a walk. Sounds simple, but it consolidates learning.

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