

How to Study Efficiently and Remember What You Study

by Winston Sieck - September 15, 2016

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School is unreal.

Imagine you're suffering through an algebra class.

Graph this weird function. Can you solve for Y?

You move on to physics. The teacher discusses electrons spinning around neutrons and protons.

You shake your head. None of this is real. Pure fantasy land.

What can you do?

How can you grasp these crazy concepts quicker?

So you can study efficiently - and remember what you study.

Fortunately, you can use a few simple tricks to make abstract ideas concrete. You can turn the fantasy into reality. So [concepts make sense](#) and stick in your brain.

These tricks aren't hard to use, though it helps to know a little about how memory works. Our [study skills course](#) covers memory in more depth, if you want to get further into it.

Do you know how memory works?

Is it a black box to you? What do you see when you open up the head?

No, not that gray stuff. Try to see it differently.

What you find is a bunch of ideas, having a party in your brain.

Your memory is a big party.

Friendly thoughts. Happy ideas. Mixing about.

But also, a little exclusive.

Don't get me wrong. They happily let new ideas into the party. But the newbies need an invite. How do you get an invite to a party?

You make a connection.

You find someone on the inside, and show them you're a lot like them. Then they let you in.

Want to get new ideas into memory?

Connect them to things you already know.

Making connections is simpler than you might think. You need a few tricks to relate unfamiliar ideas to your past experience.

Try the following [learning strategies](#) to understand quickly, study efficiently, and remember what you study.

Find an example to make abstract concepts concrete

One way to connect abstract ideas with things you already know is to come up with a concrete example.

This can be especially helpful in math. Math is often stripped down to the bare essentials. Core logic and procedures you can apply to many different kinds of real world problems. Yet it's easy to get lost in the abstractions. To lose sight of how this form of [critical thinking applies in everyday life](#).

To study efficiently, try to find one real experience to connect with. Something you can imagine easily.

For example, suppose you need to solve $y = 5x$ for $x = 3$. It's abstract. It has no concrete meaning. That's been stripped away, which can make the problem hard to grasp.

You look at the application "word" problems in your math book, and find one about babysitting:

Alexis makes \$5 per hour babysitting. Let x represent the number of hours that she babysits, and y stand for the total money she makes from babysitting for an evening. How much does she make from a 3 hour babysitting gig?

This problem gives you context - babysitting. Something you know about and that has meaning. We can all relate to money and time. So next time you stumble upon an abstract problem, add context. In your head, make each problem about babysitting (or mowing lawns, or whatever).

By making the problems meaningful to you, they become easier to digest. So, you study efficiently.

As another example, suppose you are in a calculus class finding the areas under weird curves. You're looking at an X-Y graph. The curve arcs up, dips back down, then up again.

What the heck is that curve about?

The exercise doesn't say. Just gives you a complicated equation. You look at an application problem and see that one of those crazy curves is the border of a fancy garden.

You can easily imagine a fancy garden with a curvy border. Oh, and you want to figure out how big the garden is, so you know how much soil to buy.

That's something you can hold onto. You can imagine yourself walking along that border. Touching it with your hand. Now you're ready. Going back to the abstract problems, you can try to imagine that each curve you see is the border of another fancy garden. Doing so makes the problems more familiar, more comfortable, which helps you study efficiently. And remember what you study.

You see how much easier concrete pictures make abstract problems?

You're not always able to come up with a concrete example that exactly fits the concepts you're struggling with. Your next best bet is to think of a metaphor.

Think of metaphors and analogies

Metaphors may be far off from the idea you're trying to learn. But they share something important.

Sound pretty abstract?

Let's take an example. Remember the memory party? The party idea is a metaphor for memory. Parties and memory are mostly different. Yet, they share the key idea about being connected.

People connections on the one hand, and connections between ideas on the other. Voila.

How can you find your own metaphors?

When you encounter a challenging concept, take time to mull it over. Pick out key words that are used with it. What else do they remind you of?

Take studying electricity in physics, for example. The idea of tiny electrons passing through wires may not feel that real to you. After all, when's the last time you saw an electron?

But, the words, "current" and "flow" used in this context give you a tip. Ahh, water.

You've experienced flowing water. Seen it. Heard it. Touched it. You can imagine water flowing through pipes to get a grip on those electric currents.

Now you're ready to soak up the lessons. You've got an angle to help you study efficiently. And the connections will help you remember what you study.

Explain it to yourself

Another way to integrate a new fact with things you already know is to talk to yourself. [Explain what the concept means to you](#) in your own words.

You can kick start with a question, such as, “How does the circulatory system work?”

Or ask yourself why a fact is true. “Why does blood circulate?”

Having to explain encourages you to dredge up anything you already know about the topic. You’ll naturally think of familiar ideas that help you relate.

Your brain binds together the old and new ideas. Helping you remember what you study.

Trying to explain something can be a bit rough. As you try to talk through the idea, you also identify gaps in your thinking. You revise your explanation, trying to say it differently. This serves to enrich and repair your understanding.

You may find that you need to look back over some of the earlier material to fully understand the idea. That’s great. You’re targeting what you don’t know. It’s how you study efficiently.

Your explanation will be better if you try to pull in ideas from different parts of the class.

Now, you’re making connections all over.

Make it real

You may think that studying efficiently has to do with cutting out steps. Finding the bare bones study process.

But that’s not how your mind works.

Adding some meat to academic ideas makes them easier to swallow. You can get them down faster. And remember them better.

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