Mini-Lesson: The Forgetting Curve

Use this information to teach a mini-lesson on why you need better learning strategies. When you share the "forgetting curve" you make a powerful case for incorporating better strategies when you learn, and to reduce redundant time-wasting classroom review. The student saves considerable time by using them.

Why we need better strategies for learning

The investment we make in *time to learn* is considerable. And yet, we forget much of what we have read or seen in a noticeably short time. We find the information learned today is often not accessible to us a month or even a week from now. Every learner is aware this happens--but what do we do about it?

Most students attempt to solve this problem by *power learning* - trying to pound in the information through repetitive review and re-reading. We keep going over and over our notes, or that problematic chapter, until it, we believe hopefully, sinks in. The science of learning tells us this is the most inefficient strategy that wastes vast amounts of our time.

We should understand two things about forgetting:

- Forgetting will likely occur when we try to learn something, but
- It's not inevitable - we can overcome it through better learning strategies

We should not accept forgetting as a natural byproduct of learning.

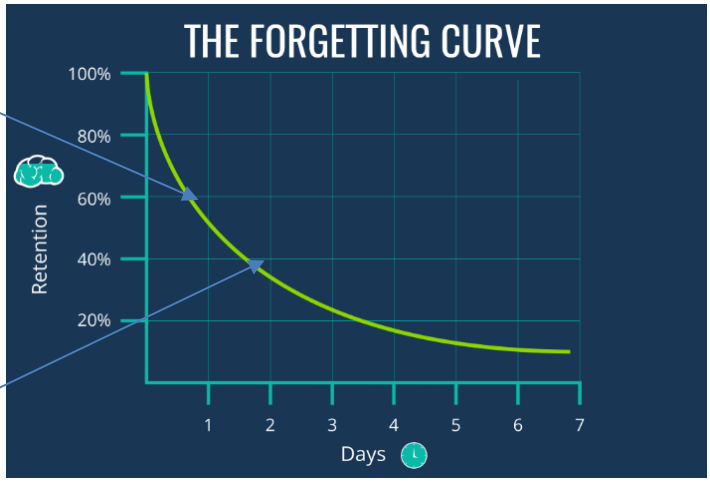
How Bad is the Problem?

Let's examine how severe the problem of forgetting is. How much do we forget?

Herman Ebbinghaus discovered over a hundred years ago the forgetting curve, when he demonstrated through his experiments how rapidly information is lost over time *absent active strategies or efforts to retain it*.

If it feels like you forget new information almost as quickly as you hear it, even when you write it down, you are correct.

40% of the information is lost in one day without learning strategies.



60% of the information is lost in less than 2 days when you do not use better strategies!

Looking at the chart above, we tend to lose almost 40% of new information within the first 24 hours of first reading or hearing it! If no additional efforts are made, 80% of that information will be lost in just over 3 days.

Can you see how severe forgetting is and why your child needs strategies to overcome it?

Without active learning strategies, 80% of information will be lost in just over 3 days!

Wow! You knew forgetting was a problem, but I'd guess you didn't think it was this bad.

Left unaddressed, the forgetting curve means we are burdening ourselves with lots of unnecessary review, re-reading, and re-teaching. This wastes an incredible amount our time. And it makes learning a tedious venture.

Think of yourself going shopping, spending your hard-earned money, then getting home finding you had only 20% of what you paid for! You wouldn't stand for that, and you shouldn't with learning either.

Learning Strategies 4X Your Efficiency

Learning doesn't have to work this way. Better methods mean you can learn 2X, 3X, and even 4X times more efficiently! But you have to know the strategies and use them.

For example, use a better note-taking system that interacts with other learning strategies. The actions of just writing something down, or highlighting something in a book, are ineffective strategies by themselves. Science proves they do not enhance memory, and worse, they create the temporary "illusion of knowing." You think you know something when you don't, or in short order, won't.

For the student, don't fall into the endless misery of reviewing, and re-reading to overcome the forgetting curve. Break bad habits. For the homeschooling instructor - without better strategies, you suffer through laborious and wasted time spent in classroom review.

The goal for both of you should be efficient learning through better methods and practices. It's worth investing time to learn to do it better.

When you don't actively address the forgetting curve, and ignore planful evidence-based learning strategies, you are shortchanging your child's college readiness. This scientific evidence is very compelling – you can't overcome the forgetting curve with outdated power learning habits.

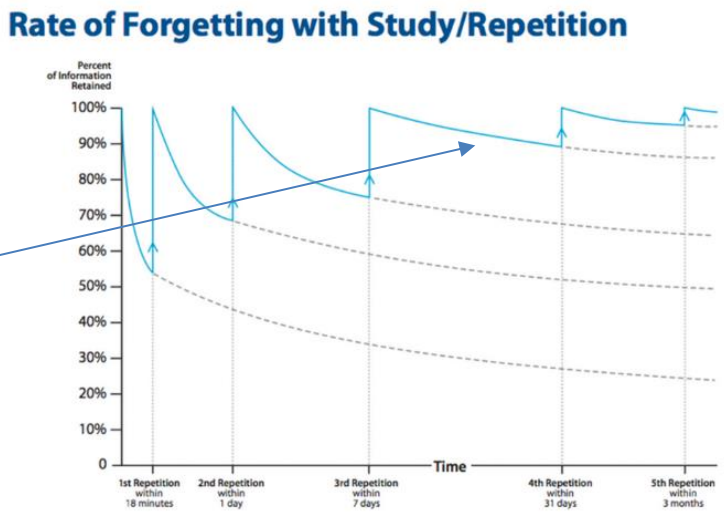
Now, let's look at the good news.

Spaced Repetition

Examine what happens to the forgetting curve when the student interacts with their notes using a system of review called spaced repetition. (also known as spaced practice)

In the chart below, the rate of forgetting is minimized when the student interacts (reviews/summarizes/discusses/retrieves/engages) with their notes within 24 hours. A second repetition for a shorter period within a second day brings recall back up to 100%. A third repetition within 7 days, and then one in 31, brings recall back to 100%.

Spaced repetition, where the student actively works with the notes, results in remembering 100% of the information.



Improvement begins when your child takes better notes that facilitate review and recitation, then works with that information systematically, where he can retain and retrieve 100% of the information received. As a parent, you need to lead the way by coaching and encouraging this combination of strategies and by adjusting your classroom assignments to incorporate spaced practice.

The chart above assumes your child created the right kinds of notes to start. Absent that, spaced repetition will be harder, and possibly not as efficient.

Which Learning Strategies Provide Active Learning?

In this course, we cover strategies that require the student to engage in active rather than passive learning. "Active learning" means the responsibility for retaining information falls on the student, not the parent.

For learning to be effective, research confirms that students need to be engaging and actively doing things with the material by using these strategies:

- ✓ *Note-taking that encourages retrieval*
- ✓ *Summarizing the information*
- ✓ *Retrieval Practice*
- ✓ *Spaced Repetition*
- ✓ *Self-Testing*
- ✓ *Recitation practice and presenting to others (like the Feynman Technique)*
- ✓ *Discussing concepts and ideas with others*
- ✓ *Solving problems, etc.*
- ✓ *Mnemonic devices*
- ✓ *Memory palaces*

Refer back to Lesson 2 and your guide "12 Amazing Strategies" to review these and more. Remembering information better requires thinking about your thinking (metacognition). This is why we emphasize it so much in this course.

Summary of Key Points

If you don't address it, the forgetting curve has high costs. We've known this for over a hundred years, but most students and teachers don't pay enough attention to the problem. Expert learners know how to use more powerful strategies to work around the forgetting curve. You can't overcome it by *power learning* methods like re-reading.

As a learning coach, you lead the way by supporting this practice -- while your child is learning the content, she is also thinking about "how" she intends to interact with it later so it can be remembered. Sit down with your child and help him or her become an efficient learner by knowing and using evidence-based learning strategies. Practice strategies for each of these three things - *repetition, encoding, and retrieval*.

Bring this into your home classroom. Talk about it. Use teaching strategies that incorporate spaced practice.

Don't surrender to the forgetting curve. Address it through smarter learning.

Questions to Stimulate Learning Conversations

1. After a student has read something, how much information will they remember two days later?
2. Science tells us that re-reading something multiple times to try to remember it is inefficient learning. How often do you find yourself doing this?
3. Science tells us that highlighting something in a book does not improve memory of that information.
4. What study practices do you use to help you remember information and overcome forgetting?
5. Now that we understand the forgetting curve, how valuable would it be to learn some new strategies to help you remember more?