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The Science of Successful Learning

Embrace difficulties

The more effort required to retrieve, the more learning takes place.



STEP
01



Avoid illusions of knowing

Familiarity is not mastery. We are drawn to immediate, short term gains, not slower, effortful, long term retention.

STEP
02

To learn, retrieve

Periodic practice and testing strengthens retrieval routes. Test yourself rather than constantly re-reading notes.

STEP
03



Space it out,
mix it up

Image Credit: Phil B <https://educationcogitation.com/tag/science/>
Make It Stick: The Science of Successful Learning by Brown and McDaniel

Try it Out!
Practice
Computations
and Critical
Analysis

**Review and
Understand
Mistakes and
Misconceptions**

**Apply Linear
Algebra to
Numerous
Situations**