Learning on Steroids:

Getting Started with Active Reading

by Scott Young
Most people read passively. This is where you skim information, interpret it, and let the ideas stew inside your brain. However, this approach has disadvantages, particularly when reading mandatory material for your studies.

Here are some of the problems students can have when needing to read through the thousands of pages of material during a semester:

1. **Distractions.** Ever gone through several paragraphs before realizing you hadn’t actually read what was written. Daydreaming is a symptom of overly passive reading.

2. **Poor recall.** You can regurgitate what was written half an hour after reading, but can you explain it after 2 days, 2 weeks, or for the exam?
3. Falling asleep while reading. If you’re already a sleep-deprived student, reading dozens of pages of boring material can turn even energetic students into temporary narcoleptics. (For anyone who claims to not have suffered from this problem, I dare them to read *On the Wealth of Nations* at 6am)

Reading Actively for Comprehension

Speed reading is great if your main goal is to read a lot of material quickly. Although the skills of speed reading can be used everywhere, you will get the most benefits when trying to understand broader concepts, buried within many pages of material.

*But what if speed isn’t your problem?*
For many situations speed reading doesn’t provide huge advantages. If you’re studying advanced mathematical proofs, speed reading tactics won’t help too much. If you need to know the details of a chemical formula, legal contract or hardware design, your problem isn’t speed: it’s comprehension.

**Speed Reading and Active Reading Can Work Together**

The point of this guide isn’t to throw any of your hard-earned speed reading techniques out the window. As I mentioned in my previous implementation guide, the whole point of speed reading isn’t to just go really fast. That would be like a NASCAR driver taking hairpin turns flooring the accelerator pedal.
Speed reading is supposed to train you to know when to speed up and slow down. It’s this finer control of speed that allows you to skim over less detail-intensive material and still gain the major point, while slowing to a crawl for the difficult, minutia-soaked passages.

If speed reading works on the dimension of speed, active reading works on the dimension of comprehension.

Active reading allows you to transform reading from a passive activity, into one where you are fully engaged, and can focus on key details to remember them more accurately later and understand them more fully in the moment.
Most People Already Active Read
(at Least Partially)

Have you ever used a highlighter to underline passages of your textbook when reading?

If yes, then you already know how to active read to a limited extent (I’ll call it Active Reading 1.0).

Highlighting may not be the most revolutionary reading technique, but it illustrates the most important principle of active reading: identifying **what information is essential** and **what is merely supportive**. By highlighting you are separating the keystones from the mere scaffolding.
When you read with a highlighter pen, you’ve already taken one step to become a more active reader. Instead of just passively absorbing the information, you are making decisions about what to focus on. This brings up active reading principle number two: reading actively means **engaging with the essential information beyond just reading the text.**

**Reading Actively:**

**The Layered Approach**

You already understand the two principles of active reading:

1. Deciding what’s essential.
2. Engaging with the essential information beyond just reading the text.
I like to work with these steps in a layered approach when I’m reading a difficult textbook. I call this the layered approach since it allows you to engage with the most important material deeply, without becoming bogged down and overwhelmed.

The layered approach involves picking a few activities, or layers, for how you’ll approach the reading material.

For example, this would be the layers I might use on a textbook:

**Layer One** - Read
**Layer Two** - Read with highlighting (which, by necessity, involves re-reading)
**Layer Three** - Read with transcription into a notebook (paraphrase, not verbatim)
**Layer Four** - Transcription with diagrams (think flow-based notes for reading)

**Layer Five** - Transcription with diagrams and further research (quick Wikipedia/Google check)

Now let’s say I’ve decided in my daily goals list to read one chapter from my economics textbook, which is 35 pages. For most of the text, I’ll only be on the first layer. A great deal of the explanations are merely to help me understand the important concepts. I don’t need to memorize the example with robots and pizza if I know it’s just a metaphor for the balance between capital and consumer spending.

For many concepts though, I’ll make an effort to highlight them. I usually do this for any information that might be testable for an exam. When I highlight, I also reread as I underline, so this ensures I don’t miss any key facts.
For the bigger or more difficult to remember concepts, I’ll write down a brief explanation on a pad of paper I keep with me while reading.

For even more central concepts I’ll add diagrams and connections deliberately in the notebook, rather than just a paraphrase. And for the stickiest ideas I’ll do a few Google searches to get more clarification on the concept.

Now, normally I don’t use all five layers when actively reading. Most of the time I can get away with three or occasionally four and still understand everything satisfactorily.

However, if you’re having difficulties in a subject, using deeper layers more often will increase comprehension. Like speed reading, it’s not about flooring the accelerator all the time, but knowing when to stop and concentrate.
Two Ways to Read Actively -
One Shot or Repeat Viewings

I typically use the one-shot method where I go through all the layers in one reading. So if I want to highlight, transcribe, annotate or research points, I do it in one sitting. Those familiar with my “learn it once” suggestion will understand this.

However, that doesn’t mean it is necessarily the best way to read actively, just one of the fastest. I suggest doing a multiple viewings system if you’re just starting out, especially if the material is difficult.

The multiple viewings system means you do each layer at a time. So in my previous example, I could read the chapter once
just passively (layer one). Next, I would read again, this time highlighting testable information (layer two). Third, I’d re-read highlighted sections and transcribe the most important (layer three). Then I would re-read highlighted sections, creating additional diagrams, finally doing further research on the stickiest points.

The second method will, of course, take more time. However, if done properly, a deep, active-reading approach will result in much higher comprehension, meaning you don’t need to study as much later. Active reading which results in re-reading sections 2-3x is superior to the sloppy method of reading a dozen times passively.
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Your Layers Will Differ By Subject

The Read -> Highlight -> Transcribe -> Illustrate -> Research layered approach is just one format. I’d use it in books that have more conceptual knowledge, like law, economics or biology.

However, if you were learning computer science, those layers wouldn’t make sense. Why spend two layers on research without a single layer to actually try to write a small program and see if you know what you’re doing?

For computer science or math, a better set of layers might be:

Read -> Highlight -> Transcribe -> Practice -> Research
What about for language learning? How does research make sense when learning simple rules? You might use the approach:

*Read* -> *Translate/Highlight* -> *Visceralize Word Association*

These are just hypothetical examples because every learning task differs. You need to construct the layers based on your subject.

If you’re having a hard time deciding what layers to use, ask yourself what would be the most intensive way you can think of to remember information. That becomes your last layer. Now just build layers which employ methods somewhere in-between.
How to Decide What is Important

The layered approach to active reading only helps if you know what is important. For most people, in most subjects, this won’t be a problem. What is important and testable is obvious.

However, less experienced students, or students taking bizarre classes, can often struggle with knowing what is really important. I’ve bought used textbooks with odd passages highlighted, as if the student didn’t realize that those weren’t crucial to remember.

In addition to deciding what is important, the balance of different layers matters as well. For some courses, I can get away with reading almost completely passively, doing little more than highlighting to retain the information.
For other courses I’ve spent little time actually reading. Most of my “reading” tasks are spent researching, practicing or using other deeper approaches to retain the information.

Knowing what is important and how actively you should read will vary on a class-by-class basis. If you’re struggling with this point, however, I suggest taking the following actions:

1. **Talk to your professor.**
2. Talk to **students who have taken the course** before.
3. Look for **past mid-term/final exams**. These are the goldmine for studying if you can find them.
Examples of Active Reading in Practice

Reading tactics are hard to create examples of in a written account. However, I’ll share a few ways I’ve used active reading so the layered process makes more sense in context. If you feel you understand the method and just want some tips on training it, feel free to skip ahead.

Example One: Law-Class Notes

I’ve had to take a couple law classes as part of my business degree. In a recent one, I had a number of readings to do. I used a simple 3-layer method to understand the material and get an A on the final exam:
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Read -> Highlight -> Transcribe

First I read all the material.

This step is basically mandatory in almost every class. Some classes (with some majors being particularly bad for this) will present the readings as essential, but they contain zero testable information. They are solely there to improve your general understanding.

But for many others, a good chunk of your testable knowledge will come from the textbook. Sometimes as high as 50% of the questions can only be answered from textbook readings, so skipping the readings can result in a failure, or at the very least a few lost letter grades.
Next, I highlighted facts, principles and rules that would be tested.

This allowed me to whittle down a few hundred pages of information into 30-50 pages which can be reviewed more easily.

Finally, I transcribed those facts in my own words onto a separate piece of paper.

This final step allowed me to reduce the 30-50 pages into 3-5 pages of dense, extremely important information. Yes, there are more facts than could be covered in 3-5 pages, but the transcription only covers the facts I feel are easy to forget or are central to understanding other concepts.
Example Two: Accounting Problems

Once again, a simple 3-layer system:

\textit{Read} \rightarrow \textit{Highlight} \rightarrow \textit{Practice Problems}

I used this for both my financial and managerial accounting classes (our school has 40% failure rates for these two nasty classes) and managed to get A+s in both.

Once again, I started by reading and then highlighting. I did these in one go, but in retrospect it probably would have been better to read twice, with the second round focusing on highlighting. I mislabeled unimportant facts as important and vice versa trying to do them in one go.
This time, however, instead of transcription (although my class-time notes were full of diagrams and metaphors), I focused on practice problems in key areas. Some students did every practice problem, but I focused on the problem sets for concepts I didn’t understand easily when I first approached them in the reading.

“Example” Three: Data Structures in Computer Science

I’m bringing up this last example because it’s a case where I didn’t read actively and still did well in the course. I want to point out that, active reading is helpful when you have:

- Detail oriented classes
- Dull or uninteresting material
- Difficult concepts
I recently completed a course on data structures (just an elective, my degree isn’t in computer science). There was an associated book with the topic, although the book wasn’t strictly necessary for understanding the course, it did offer many useful ideas.

I read the book without highlighting and worked on some of the problems it suggested. I didn’t need to go through the steps of deep, active reading because the book was easy to read and dovetailed nicely with the homework assignments I already had for the class.

The point of active reading isn’t to use it exclusively but to use it strategically. I only actively read maybe 20-40% of my course material. You might do more, as much of my reading isn’t for classes. Going through five layers on every single book isn’t necessary for most students, so I only recommend it if you need it.
How to Start Active Reading

Before you start reading something actively, decide what are the layers you are going to use. You don’t need to come up with five, six or eighty-two layers for your first go. Unless you already have a developed routine, you might want to just start with three:

*Read* -> *Highlight* -> *Paraphrase*

Then you can practice the method. I suggest starting with multiple viewings.

Once you’ve done this approach a few times (or if you’ve already been working with a similar approach), you can expand by adding deeper layers to enhance your reading.
Implementing the Skill

Reading about ideas doesn’t turn them into skills, you need to practice them.

Here are a few ways you could make a new trial with the method and make it stick:

30 Day Trials or 7 Day Experiments:

1. Read actively with one subject for one month.
2. Actively read textbook material for 30 minutes every day.
3. Add an additional layer to your current readings.
Stopwatch Challenges:

1. 30 hours of active reading.
2. 15 hours of active reading within a particular course

If you do start a trial, please share about it in the forum. Collectively we are smarter than we are individually, so adding your wisdom can help us all improve.

Good luck with this tactic, and I’ll see you on the other side!