Deep Linking
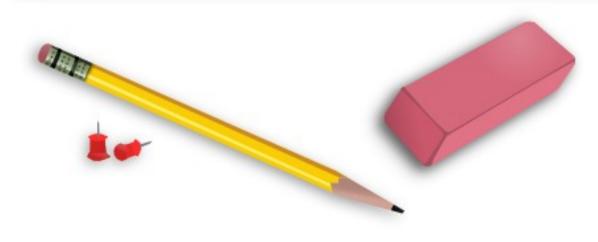
Deep linking is one of those techniques that, at first, sounds like a lot more work. When I first explain the technique, I expect a few readers to jump out and scream at their screen that this is the opposite of "rapid" learning since it means (surprise!) more work.

However, I hope that the few reader will sit through this and realize that deep linking can actually **save you time** in the long run, because you will actually "get" the subject, rather than just have a brief understanding. When you "get" a subject, that saves huge volumes of time on relearning and studying that most students waste.

Deep linking is also one of the most straightforward ways to learn holistically. So, unlike metaphors, diagrams and fancy visceralizations (which can be confusing without practice) deep linking is really easy to get started on.

The final advantage of this tactic is that it boosts your interest in topic. I know, I know, there's no way you can possibly enjoy calculus, anatomy or perhaps economics. Or can you? Maybe your resistence to learning the subject isn't just that the subject is "boring" but your method of approaching it was off in the first place.

What is Deep Linking?

In Learn More, Study Less, I identified 3 broad linking strategies. These aren't so much specific methods, but general approaches to fusing ideas together for better memory and understanding. Those three are:

1. Lateral linking
2. Vertical linking
3. Deep linking

Deep Linking

Lateral linking is the most obvious form of linking, it's where you compare what you're learning to something you already understand within the subject field.

For example, if you're studying integrals, then it is easy to compare them to derivatives. If you're learning functions in computer programming, you can compare them to loops. If you're learning how to create a cash flow statement, you can base that off your knowledge of an income statement.

Vertical linking is the most creative form of linking. This is where you connect what you're learning to something completely different, outside the field.

For example, if you're studying integrals, you could compare it to sand flowing into an hourglass. If you're learning functions in computer programming, you could compare them to a pencil

sharpener. If you're learning how to do a cash flow statement, you can relate that to the change you keep in your wallet when doing shopping.

Deep linking is the most intensive form of linking. This is where you connect what you're learning, to deeper study on the topic itself. I believe it is also the easiest way to form powerful connections.

For example, if you're studying integrals, you might read up a bit on Newton's help in inventing calculus. When reading about functions you may learn about the way they work in simpler programming languages. If you're learning how to do a cash flow statement, you may research how the statement is particularly important to new start-up businesses.

The Iceberg Strategy for Learning

Deep linking follows the iceberg strategy for learning. That being that, in order to have some ideas float to the surface, they should be supported by a much larger mass of connections or understandings underneath.

Since ice has about 90% the density of water, that means nine tenths of an iceberg is below the surface of the water. Knowledge can have a similar impact. When you deep link, you are building the underwater 90% so that the 10% never sinks.

Unfortunately, very few people ever do research deeper than what is required of them. *"Is this going to be on the test?"* Is a common concern cited by students. The question being, why learn any more than you absolutely need to, learning the basics is hard enough.

Why Deep Linking Actually Saves You Time

There are two reasons deep linking saves you time:

You don't actually need to *remember* the additional research. If I want to do more research on a topic, I don't need to actually remember that further research. The additional research simply serves as a breeding ground for new holistic connections with the material I actually do need to remember.

Linking is hard work, deep linking is easier. Coming up with creative connections, metaphors and diagrams is hard. Particularly if you're new at it. But, if you do further research into a topic, coming up with new links is easy.

Why Deep Linking Makes Your Courses More Enjoyable

"Yeah, but who cares?"

This is the biggest obstacle to holistic learning. When you find yourself saying this in a class, it makes forming connections far more difficult.

I'm not trying to blame anyone who doesn't like a course they are taking. I've said this to myself in courses where I feel the professor isn't giving any practical information. So, I know how it feels to be in a boring class.

Deep linking can make those classes interesting because you'll be uncovering all the context missing in the classroom

discussion. When your professor is just rambling on about an obscure statistical theory, you may say to yourself, *"Yeah, but who cares?"*

However, if you do a bit more research, see how the technique is used in real world situations, or see how it is necessary for more complex statistical analysis, the idea becomes more interesting. Instead of dealing with dead, useless topic, you now have something with legs and a heartbeat.

Why Deep Linking Doesn't Require a Lot of Work

Once again, I feel there will still be some students who are hesitant. *"More research? I have too much to learn as it is!"*

Deep Linking

Deep linking doesn't actually require much more time. Thanks to the internet, getting more detailed information on a subject is incredibly easy. And, because you're under no pressure to remember this additional information, you can skim articles to find what interests you, instead of taking detailed notes.

Consider deep linking to be a quick probe into the territory ahead, not a complete survey.

Implementing Deep Linking

The best tool for deep linking is Wikipedia. Although there are limitations to the service, it has provided me with the starting point for almost all my deep linking.

Deep Linking

For example, when I was learning how to create 2-3 trees in a computer programming class, I did a Wikipedia search on the topic. Not only was there an explanation of the trees, but also far more details about how they were used, red-black trees, variations of the concept, etc.

Did I understand everything I read? Of course not. But the deep linking allowed me to better understand my main subject (which was the entire point). In all, I probably spent less than 10 minutes skimming a few Wikipedia articles, but already generated dozens of links connecting my current topic to newly discovered territory.

Google Scholar is another great tool for doing research. Here you can find academic papers on the topic you've researched. Even reading the abstracts can give you a bit more depth into the

idea you're currently learning. I find it less useful than Wikipedia because navigation is more difficult and the writing style is less accessible, but it is still a good place to look.

An even more basic form of deep linking is simply to flip to later sections of the textbook which utilize the ideas you're currently using. You can skim these over, and even if you don't understand everything, you will get a better picture of how what you're learning now is actually applied.

Finally, talk to your professors. Most professors are happy that a student has an interest in learning more, so they could probably direct you to the best resources to read up on the topic.

Again, you may spend a bit more time creating the extra links, but you'll save time when you don't have to study the initial subject as intensely.

Putting it Into Practice

Once again, Learning on Steroids is about implementation not just ideas. So here are a few suggestions for putting it all together into a 30-Day Trial:

- You could spend 30 minutes per day deep-linking with a subject of your choice.
- Buy 3-4 books that interest you, that are related to your chosen topic. Read for 15 minutes every day.
- Talk to students in a higher level from you and ask them how what you're learning currently is used in their subjects.

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