

Literature Notes

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1 Notes about document

This document consists of a summary of various research related papers. It serves as a memory for literature reviews needed for writing papers. Each paper makes up its own section, labeled by how it would appear as an in-text reference. The full reference is given, and cut-and-pastable into a references section of a paper. The `makeidx` package is in the preamble, and it is used to create an index. Everywhere an index reference is desired, simply include `\index{topic}`, where “topic” will be the actual index entry. For sub-entries, use `\index{topic ! sub-topic}`. The “topic” doesn’t appear in the text. To generate the index:

```
$ pdflatex litnotes.tex
$ makeindex litnotes
$ pdflatex litnotes.tex
```

Each section also has a list of keywords that help to identify important topics in the paper. These often are related to index topics. Finally, **location** refers to the name of the folder that I’ve decided to file the paper copy of the paper when I choose to save the paper copy. This is likely to be the most in danger of being out of date, but hopefully it will help.

2 Medina 2010

Medina, John, *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home, and School*, Pear Press, 301 pages, (2010).

location: Learning

keywords: Learning, teaching, optimizing brain, vision

2.1 Summary

My most highly recommended book–EVER.

In an accessible and entertaining way, John Medina explains what is known about how the brain works, and how to use that information to optimize your teaching and learning.

How is it relevant to your professional life? **brain rule #10: Vision trumps all other senses.** Explains the necessity for avoiding “Death by power point”, an infection that is so common in presentations that we have just come to accept bad talks are a part of a professional researchers life. It doesn’t have to be this way. Really. Read this book. Please.

2.2 Important points

Use a combination of prose and bullets, whatever makes it easy for you to integrate the knowledge in your brain and refer back to the information you choose to include in this document. For example, we could list the brain rules here:

1. **EXERCISE:** Exercise boosts brain power. (*Here’s your excuse to sign up for yoga, pilates, boot camp, or rock climbing.*)
2. **SURVIVAL:** The human brain evolved, too.
3. **WIRING:** Every brain is wired differently.
4. **ATTENTION:** We don’t pay attention to boring things. (*Nice to know this is a scientific fact, now if only our professors would acknowledge this!*)
5. **SHORT-TERM MEMORY:** Repeat to remember
6. **LONG-TERM MEMORY:** Remember to repeat
7. **SLEEP:** Sleep well, think well (*What?!? I thought I grad students weren’t supposed to sleep!!*)
8. **STRESS:** Stressed brains don’t learn the same way.

9. **SENSORY INTEGRATION:** Stimulate more of the senses. (*Another reason why create a document similar to this helps you assimilate the material in your brain...and why taking notes is better than just highlighting when you study*)
10. **VISION:** Vision trumps all other senses (*This is why my presentation had so many pictures. Bullets mostly serve to remind the speaker what they wanted to say, they don't really help the audience.*)
11. **GENDER:** Male and female brains are different.
12. **EXPLORATION:** We are powerful and natural explorers. (*We should really consider this when we plan our lectures.*)

2.3 Relevance to writing

brain rules #5 & #6: Repeat to remember, and remember to repeat

Creating this document serves several purposes. First, by taking notes, you will force yourself to *understand* the material better (or at least identify what you don't understand), and you will *remember* it because you are not only repeating, but you are using more of your senses to integrate the knowledge. Second, this will help your **writing!** This is because you are not under the false impression that you are trying to write a final draft. Nobody has to see this document except *you*, so BE FREE! Write completely uninhibited! Don't worry about finding the perfect word or whether you should use a comma or semi-colon. Just let it flow, or as I call it: Brain dump.

3 Paradis and Zimmerman 2002

Paradis, James G., and Muriel L. Zimmerman, *The MIT Guide to Science and Engineering Communication, second edition*, The MIT Press, 336 pages (2002).

location: Writing

keywords: Preparing documents, figures

4 Schultz 2009

Schultz, David M., *Eloquent Science: A practical guide to becoming a better Writer, Speaker, and Atmospheric Scientist*, Amer. Meteor. Soc., 448 pages (2009).

location: Writing

keywords: Writing, style, presentations, preparing for publication, reviewing

4.1 Summary

Summarize paper here. This can be as extensive or superficial as you want. The more relevant the paper is to your work, the more extensive it should be.

Excellent resource for preparing manuscripts, reviewing manuscripts, and preparing oral or poster presentations. Most of the content is relevant for all scientists, not just atmospheric scientists. Highly recommended.

5 Silvia 2007

Silvia, Paul J., *How to Write a Lot*, Amer. Psychological Assn., 149 pages (2007).

location: Writing

keywords: writing, schedule

5.1 Summary

AMAZING resource for getting strategies for getting your writing done.

Sometimes the authors original words are perfect and you want to preserve them.

5.2 Relevance to our work

Sometimes I add a section which really emphasizes how the paper relates to the work I'm doing. This not only reminds me later when I'm designing simulations or writing an introduction to a paper, but also helps me synthesize my work in the context of the bigger picture. It helps me understand what I'm doing.

5.3 Things to do

Sometimes a paper gives me some ideas of what I should look for in my own analysis. In that case, I write it down here.

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