



## THE BASIC BRAIN

Improving memory requires us to understand the Basic Brain!

What do we know about the way our brains work?

The brain, like a muscle, requires training to build Muscle Memory.

Your mind stores new information for just a short period of time - from 30 seconds to a few hours. In order to learn new material, you must move it into "long-term" memory, then use a variety of techniques to make sure it's stored "securely." It's a lot like athletic training or music practice.

**Ross's 9 Rules of Remembering and Retrieval:**

1. Forgetting begins quickly and dramatically after you read, hear, or see new information.
2. Writing is important for recording and reinforcing memory for almost everyone.
3. Remembering works best in small doses delivered regularly over a period of time.
4. Learning and remembering are easier when you already know something - anything - and you build on what you know.
5. Remembering random information is really hard!
6. "Reworking" beats recopying any day [because the Brain gets involved with reworking while the Brain is on autopilot with copying].
7. Reps\* reinforce but thinking builds a stronger foundation. [\* reps = repetition]
8. Remembering different types of information requires different memory techniques.
9. Being able to retrieve information from your Brain's storage area is just as important as being able to remember it.

**Traps and Tricks**

1. Just because something makes sense when you hear it doesn't mean you really "know" or "understand" it... or will remember it.
2. Learning of all kinds - *i.e.* from pure memorization to understanding concepts - works best if information is
  - a. organized in some way.
  - b. manageable.
  - c. adjusted based on the learner and the material to be learned.
3. Learning through example leaves a lasting impression, especially if you make up the example.
4. Cramming results in "shallow" rather than "secure" or long-term learning. Shallow learning disappears under stress...such as the inevitable stress of a test.
5. Test yourself before your professor tests you... but be a tough grader for yourself!
6. Professors follow patterns -
  - in the type of information they ask for and
  - in the way they test.

## OK, WHAT NOW??

There are tried and true techniques for effective learning and remembering!

Make sure you have shifted your mindset:

from *studying for the test* to *learning the material*.

Answer 3 questions:

### 1. *What do I need to learn?*

**Facts?** **Memorization may work.** [good for items you need to use quickly & often: formulas, vocabulary, grammar rules, chemical elements, etc.]

**Concepts?** **Understanding is required.** [important for making sense and seeing the logic behind topics, concepts, problems, examples, etc.]

Most professors give clues in their lectures as to what types of information you need to know. Can you figure out what matters? If not, see your professor or a professional study strategies tutor! For example, you may not be including everything you need in your class notes.

### 2. *How will my professor test me?*

There are 2 main types of test questions, and you should use different strategies to prepare for each type of test.

**Recognition questions: the answer is there**

**For ex: multiple choice, matching, true/false**

**Recall questions: I must provide the answer**

**For ex: fill in the blank, problems, short answer, essay**

[requires very accurate & complete answers]

If you have difficulty with certain types of question, a professional tutor at the Learning & Advising Center can assist you.

### 3. *What's the best way for me to learn and remember each type of information?*

- **Study cards** [cue cards, smart cards]  
[Think carefully: what should be included on them?]
- **Study Guide** [an annotated summary of essential information]
- **Visuals:**
  - **charts** [especially good for comparing and contrasting information]
  - **lists/steps**
  - **diagrams** } **Be able to label and accurately explain each item**
  - **time lines** } **you include in any visual!**
  - **sketches**
- **Applications to the "real world"**
  - **problems** [from the text?]
  - **case studies** [from class? from the text? from your experiences?]
  - **examples** [can you make up your own examples?]
- **Recitation: making up and answering sample test questions**
  - **alone**
  - **with others**
- **Outlining**

If you find that you are having difficulty remembering certain types of information, or if your test grades are lower than you would like, call 951-2730 and set up an appointment to work with a professional study strategies tutor. Assistance is available!

