

Handout: Module 3, Retrieval Practice

Essence of the Retrieval Practice Strategy¹⁻⁴

Practicing regularly by retrieving important information from your long term memory.

Advice for Students¹⁻⁴

Develop flashcards explaining principles, concepts, and procedures in your own words. Test yourself and check your response to make sure that what you recall is accurate and complete. Spend more time studying areas that are difficult for you.

Advice for Faculty¹⁻⁴

Give students pre-tests on important information, and periodically use low-stakes or no-stakes quizzes and tests to check their understanding. Provide feedback to clarify understanding. Use open-ended rather than recognition questions on exams.

Recommended Readings on Retrieval Practice

Presented in alphabetical order, the books below provide an excellent detailed description of learning science. Below each, I have noted particular chapters from each that relate to retrieval practice. You may also wish to look in each book's index under such terms as *generation effect*, *pre-testing*, *recall*, *retrieval practice*, *self-testing*, *testing*, and *testing effect* for additional, relevant information.

1. Brown PC, Roediger HL III, McDaniel MA. Make It Stick: The Science of Successful Learning. Cambridge, MA: Belknap Press of Harvard University Press, 2014.
Chapter 2, *To Learn, Retrieve*

2. Carey B. How We Learn: The Surprising Truth about When, Where, and Why It Happens. New York, NY: Random House, 2014.
Chapter 5, *The Hidden Value of Ignorance: The Many Dimensions of Testing*

3. Doyle T, Zakrajsek T. The New Science of Learning: How Learn in Harmony with Your Brain. Sterling, VA: Stylus, 2013.
Chapter 6, *Memory*

4. Oakley B. A Mind for Numbers: How to Excel at Math and Science (Even If You Flunked Algebra). New York, NY: Jeremy P. Tarcher/Penguin, 2014.
Chapter 7, *Chunking Versus Choking: How to Increase Your Expertise and Reduce Anxiety*

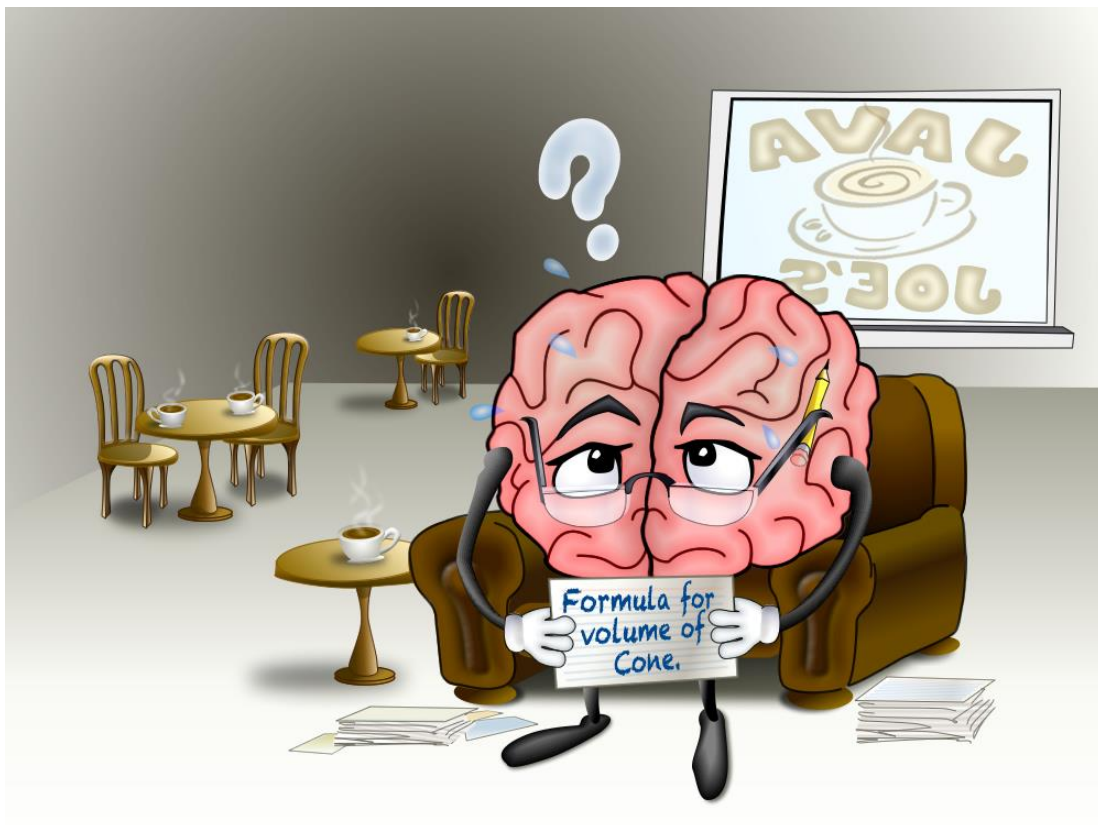
References Associated with the Retrieval Practice Video

¹For more information about the benefits of retrieval practice or testing, especially compared to passive review, please see pages 80-103 in Chapter 5, *The Hidden Value of Ignorance: The Many Dimensions of Testing*, in: Carey B. How We Learn: The Surprising Truth about When, Where, and Why It Happens. New York, NY: Random House, 2014.

²For more information about the value of paraphrasing and other uses of language in learning, please see pages 65-67 in Chapter 5, *Teaching and Pedagogy*, in: Leamson R. *Thinking about Teaching and Learning: Developing Habits of Learning with First Year College and University of Students*. Sterling, VA: Stylus, 1999.

³For more information about test anxiety and testing strategies, please see pages 119-120 (part of Chapter 7) and 244-246 (part of Chapter 17) in: Oakley B. *A Mind for Numbers: How to Excel at Math and Science (Even If You Flunked Algebra)*. New York, NY: Jeremy P. Tarcher/Penguin, 2014.

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