

## Handout: Module 5, Elaboration

### Essence of the Elaboration Strategy<sup>1-4</sup>

Elaboration is expanding the breadth and depth of your understanding and the strength of your memories for important knowledge and skills. Elaboration helps by increasing the number and variety of cues associated with the information in your brain.

### Advice for Students<sup>1-4</sup>

During each study session, vary aspects of your routine, including where you study (e.g., library, coffee shop, and classroom), how you study (e.g., reading, writing, reflecting, and discussing), and when you study (e.g., morning, afternoon, and evening). Try to apply new knowledge and skills to different and more complex situations.

### Advice for Faculty<sup>1-4</sup>

Engage students in different ways throughout the course. In addition to brief didactics, give students opportunities to engage other senses, such as through reading, writing, and discussing key ideas after some reflection. In addition to exams, include other assignments (e.g., papers, presentations, and projects) that extend understanding and solidify memories through different senses and experiences.

### Recommended Readings on Elaboration

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 elaboration. You may also wish to look in each book's index under such terms as *context*, *context change*, and *varied practice* 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 3, *Mix Up Your Practice*  
Chapter 8, *Make It Stick*
2. Carey B. How We Learn: The Surprising Truth about When, Where, and Why It Happens. New York, NY: Random House, 2014.  
Chapter 3, *The Effect of Context on Learning*
3. Doyle T, Zakrajsek T. The New Science of Learning: How Learn in Harmony with Your Brain. Sterling, VA: Stylus, 2013.  
Chapter 4, *Using All Your Senses to Learn*
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 10, *Enhancing Your Memory*  
Chapter 11, *More Memory Tips*

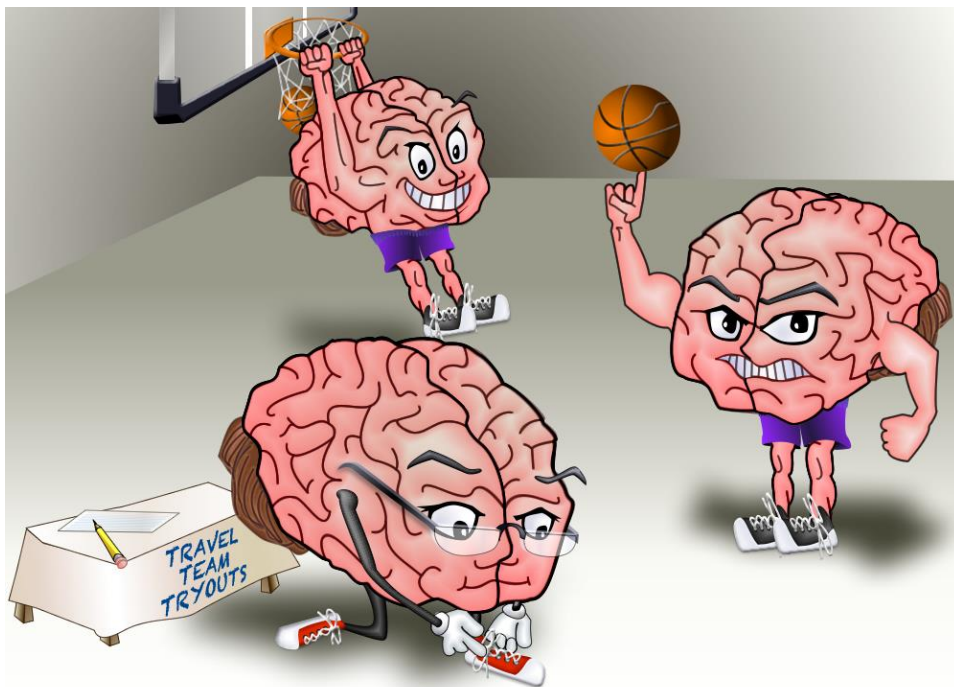
## References Associated with the Elaboration Video

<sup>1</sup>For a description of the term elaboration and different examples of it, please see pages 52, 54, 77-80, and 82 in: Doyle T, Zakrajsek T. The New Science of Learning: How Learn in Harmony with Your Brain. Sterling, VA: Stylus, 2013 **and** pages 5-6, 36, and 207-208 (and index for many examples) in: Brown PC, Roediger HL III, McDaniel MA. Make It Stick: The Science of Successful Learning. Cambridge, MA: Belknap Press of Harvard University Press, 2014.

<sup>2</sup>For more information about the effect of context on learning and memory, please see pages 45-64 (Chapter 3) in: Carey B. How We Learn: The Surprising Truth about When, Where, and Why It Happens. New York, NY: Random House, 2014.

<sup>3</sup>For more information about leveraging different senses to learn, please see pages 45-55 (Chapter 4) in: Doyle T, Zakrajsek T. The New Science of Learning: How Learn in Harmony with Your Brain. Sterling, VA: Stylus, 2013.

<sup>4</sup>Original artwork by Rob Blair. ©2016 property of Magnum Veritas Productions, L.L.C. Used with permission.



## Contact Information

For additional information about this series or for any questions, please contact:  
Thomas J. Van Hoof, MD, EdD  
University of Connecticut  
Email: [tom.vanhoof@uconn.edu](mailto:tom.vanhoof@uconn.edu)