

**Book Notes: How The Body Knows Its Mind:
The Surprising Power of the Physical Environment to Influence How You Think and Feel
By Sian Beilock**

Chapter 3: Learning by Doing

- Becoming part of a physical system enhances learning.
- Bodily experience leads to marked learning gains – rather than just reading or watching, engage your body in motions related to the content.

Chapter 4: Don't Just Stand There

- Take a lesson from actors – when actors retrieve a scenario from memory, they recall both the dialogue and the actions. The sensory and motor activities aid in the recall of words.
- You may even want to consider taking an acting class. One study found that seniors who took a month-long acting class had a better memory than those who participating in other types of classes.
- Use your body to aid your recall by incorporating body movements into memorization.
- Distribute learning over time. The longer the space between memorization sessions, the harder you have to work to remember it, which helps commit it to memory.

Chapter 5: Body Language

- Gestures help us learn. Information that is conveyed with the hands is more easily expressed and remembered. Chemistry professors at the University of Maine find that when students are taught to gesture when thinking about molecules, they are better at understanding and representing their structures.
- Try to memorize using gestures as you practice. When it comes time to remember, you will have two hooks (one related to action and one related to speech) to try to recall the information.
 - We are so used to typing out our communications; harness this concept by pretending to type out the information you need to memorize and recall.

Chapter 9: Movement

- Short bouts (30 min at 60-80% of max effort) of exercise benefit the areas of the brain (prefrontal cortex, parietal cortex, hippocampus) which support thinking, reasoning, and working memory.
 - Short bouts of exercise also improve focus of attention.
- Exercise also aids in the circulation of dopamine, which plays a role in control of movement, creativity, and focus of attention.
- Exercise is also associated with a more positive view of the world, which can aid in motivation.

Chapter 10: Buddha, Alexander, and Perlman

- Meditation, even just for a few minutes a day, can help improve focus and attention.
- Use the Alexander technique (<http://www.alexandertechnique.com>) to focus on posture and eliminate physical tension, which can impede attention.

Chapter 11: Greening the Brain

- Scenes of nature (real or virtual) can improve working memory.
 - Students who took a 50-minute walk through Ann Arbor Arboretum scored better on tests of directed attention than those who walked downtown through the city. A related study found that looking at pictures of Nova Scotia scenery improved concentration compared to looking at pictures of cityscapes.
- Sit outside with a view of greenery when you can. If you must be inside, try to sit by a window with a view of greenery.
- When you can, leave the gym and go for a hike or walk in a natural area.

Book Notes is a series compiled by Lisa Medoff, PhD, Stanford School of Medicine's Learning Specialist. These handouts are intended to provide at-a-glance suggestions and strategies relevant to the needs of medical students. If you find the handouts helpful, I encourage you to read the original books, as they will offer much more detailed information on the topic of interest.

Please contact lmedoff@stanford.edu if you have a suggestion for a book that should be added to the series and/or if you are a student at the School of Medicine who would like to discuss in person how to implement any of the suggestions listed above.