



The University of Vermont
LARNER COLLEGE OF MEDICINE

The Science of Learning

Learning Theory: Spaced Practice

Definition: Spacing out learning of new knowledge

Effect: Superior long-term retention that improves educational outcomes.

Why it works:

Research: [Spaced Repetition Promotes Efficient and Effective Learning Sean H. K. Kang, Dartmouth College](#)

Key Points from the article:

- The timing or arrangement of review/practice affects learning.
- Practice is more effective when spaced out over time, instead of massed or grouped together (equating total practice time).
- Spaced practice enhances memory, problem solving, and transfer of learning to new contexts.
- Spaced practice offers great potential for improving students' educational outcomes.

Curricular Design Application at the Larner: Students need to recall content at increasingly longer intervals. We structure pedagogy in a way that encourages spaced review and discourages massed practice. The Integrated curriculum pulls threads forward so that key topics are covered over a longer period of time, avoiding massed practice.



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- 1. Assign Independent Learning**, ideally with knowledge checks built in
- 2. Require Knowledge Check** Recall information for Quiz or IRAT)
- 3. In-class application.** Recall foundational knowledge to apply in class.
- 4. Block Exam/ Course Exam/Board Exam:** Prepare by recalling/revisiting material that is was previously learned.
- 5. Review of FoCS material in subsequent courses/clinical settings disrupts forgetting while capitalizing on elaboration**

Other Resources: [Osmosis Video](#)