Learning Theory: **Retrieval Practice**

**Definition:** Retrieval practice is a strategy in which bringing information to mind enhances and boosts learning. Deliberately recalling information forces us to pull our knowledge “out” and examine what we know.

**Effect:** Struggling to learn – through the act of practicing what you know and recalling information – is much more effective than re-reading, taking notes, or listening to lectures. Slower, effortful retrieval leads to long-term learning. In contrast, fast, easy strategies only lead to short-term learning. (*Pooja K. Agarwal, Ph.D.*)

**Why it works:**


- Immediate testing promotes better long-term retention that repeated studying, even without feedback from testing.
- Spaced presentation or retrieval leads to better performance on delayed tests.
- Testing, or forced retrieval practice, creates a desirable difficulty during learning that produces elaboration of existing memory traces and their cue-target relationships.

**Curricular Design Application at the Larner:** Students are asked to retrieve content prior to arriving to class, in-class, and after class. We structure pedagogy in a way that encourages students to capitalize on the power of retrieval (hint—it’s more effective than taking notes):

1. **Knowledge Checks built into Assigned Independent Learning**
2. **Required Quiz or IRAT**
The Science of Learning

3. In-class questions with clickers

4. Formative Quizzes

5. Integrative Review sessions

Other Resources: Retrieval Practice Osmosis Video