### Background

- Retrieval practice enhances long-term retention over repeated study and elaborative studying methods (Karpicke & Blunt, 2011).
- Also, collaborative learning is used as a learning tool in educational settings to enhance memory of material.
- However, groups do not recall as much information as combined individuals do (pooled score). This is called collaborative inhibition (Weldon & Bellinger, 1997).
- This experiment observes the effectiveness of individual and collaborative retrieval practice on long-term memory.

### Methods

**Participants:**
- 48 undergraduates from Purdue University

**Materials:**
- Three science texts: *Homeostasis*, *Tropisms*, and *The Digestive System* (262, 262, and 268 words).

**Design & Procedure:**
- Subjects completed study activities for each text (within subjects)
  - Recall Alone, Recall Collaboratively, Study Only
- One week later, subjects completed a short answer test (between subjects)
  - Test Alone, Test Collaboratively
  - Final short answer test
    - Verbatim: tests information that is directly in the text
    - Higher Order: tests relationships that are implied in text and ability to apply new information

### Results

**SESSION 1**

- Subjects in the “Recall Alone” condition recalled more than subjects in the “Recall Collaboratively” condition
- Subjects in the “Recall Collaboratively” condition recalled less than their pooled scores (potential)

**SESSION 2**

- Individuals in the “Recall Collaboratively” condition scored higher on the final test on verbatim and higher order questions when testing collaboratively
- Subjects in “Recall Alone” and “Recall Collaboratively” conditions scored higher on the final test than subjects in the “Study Only” condition

### Discussion

- Subjects in the “Recall Alone” condition recalled more idea units than subjects in “Recall Collaboratively.”
- Collaborative inhibition was seen as groups recalled less than their potential (pooled score).
- Subjects in either recall condition performed better on the final test than subjects in the control condition.
- Subjects in the “Recall Collaboratively” condition scored higher on the final test when testing collaboratively.

### References
