

## **Applying Memory Science to the Classroom: Effects of Reading Questions and Answer Keys on Test Scores**

Holly Griskell, Erin Harrington, Andrea Bretl, Emmanuel Bara-Hart, Nathaniel Terry, Amanda McCullough, Phuong Quynh Nguyen

*Departmental Affiliation:* Psychology  
College of Arts and Sciences

Instructors and students are constantly searching for effective ways to increase reading comprehension. Cognitive science would suggest that both additional assessment as described by the testing effect and timely feedback would increase comprehension. Our study investigated the effect of assigning reading questions on the quiz scores of undergraduate students. We also examined the effect of giving students an answer key versus verbal feedback on final quiz scores. Prior to the intervention, students completed a reading and then were given a pre-test group activity and post-test during class. Researchers selected certain class sections to complete ungraded questions prior to class as well as selecting sections to receive answer keys during the group activity. We found that students who completed reading questions had significantly higher initial quiz scores than those who did not complete reading questions. Results also showed that students who had an answer key during their class activity scored significantly higher on their final quiz than those who reviewed the answers with an instructor. This research provides insight into maximizing student tests scores and improving reading comprehension. This technique can be applied to fields outside of an educational setting to increase initial understanding of material.

### *Information about the Authors:*

The authors are currently enrolled in the Psychology Department's Human Cognition Lab.

*Faculty Sponsor:* Dr. Kieth Carlson

*Student Contact:* [erin.harrington@valpo.edu](mailto:erin.harrington@valpo.edu)