

Shana K. Carpenter

Curriculum Vitae
July, 2009

CONTACT INFORMATION:

Department of Psychology
Iowa State University
W112 Lagomarcino Hall
Ames, IA 50011-3180

Phone: (515) 294-6867
Fax: (515) 294-6424
E-mail: shacarp@iastate.edu

EDUCATION:

Ph. D., Cognitive Psychology, Colorado State University. Fort Collins, CO
Dissertation: *A multiple-cue hypothesis for the testing effect*. Chair: December, 2004
Edward L. DeLosh, Ph.D.

M. S., Cognitive Psychology, Colorado State University. Thesis: Fort Collins, CO
Interpreting the effects of memory enhancement through testing: May, 2003
Cue effectiveness versus item difficulty. Chair: Edward L. DeLosh,
Ph.D.

B. A., Experimental Psychology, University of Southern Colorado, Pueblo, CO
Summa Cum Laude. Honors Thesis: *Effects of free-recall on memory May, 2000*
memory for neutral and emotional events. Chair: Richard Krinsky, Ph.D.

PROFESSIONAL EXPERIENCE:

Assistant Professor, Department of Psychology, Iowa State University. 2008 - present

Assistant Project Scientist, Department of Psychology, University of California, San Diego. 2008 - present

Postdoctoral Fellow, Department of Psychology, University of California, San Diego. Studies funded by the Institute of Education Sciences (Hal Pashler, PI) to explore means of optimizing learning and attenuating forgetting. 2005 - 2008

Laboratory Instructor, Department of Psychology, Colorado State University. Sole responsibility for both undergraduate- and graduate-level laboratory courses. 2002 - 2004

Graduate Teaching Assistant, Department of Psychology, Colorado State University. General assistance to primary instructor for large undergraduate courses. 2001 - 2002

PUBLICATIONS: (in reverse chronological order, * denotes student co-author)

-
- Carpenter, S. K.** (in press). Cue strength as a moderator of the testing effect: The benefits of elaborative retrieval. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.
- Carpenter, S. K.**, Pashler, H., & Cepeda, N. J. (in press). Using tests to enhance 8th grade students' retention of U. S. history facts. *Applied Cognitive Psychology*.
- Carpenter, S. K.**, Pashler, H., Wixted, J. T., & *Vul, E. (2008). The effects of tests on learning and forgetting. *Memory and Cognition*, 36, 438-448.
- Pashler, H., Rohrer, D., Cepeda, N. J., & **Carpenter, S. K.** (2007). Enhancing learning and retarding forgetting: Choices and consequences. *Psychonomic Bulletin and Review*, 14, 187-193.
- Carpenter, S. K.**, & Pashler, H. (2007). Testing beyond words: Using tests to enhance visuospatial map learning. *Psychonomic Bulletin and Review*, 14, 474-478.
- Wixted, J. T., & **Carpenter, S. K.** (2007). The Wickelgren power law and the Ebbinghaus savings function. *Psychological Science*, 18, 133-134.
- Carpenter, S. K.**, Pashler, H., Cepeda, N. J., & Alvarez, D. (2007). Applying the principles of testing and spacing to classroom learning. In D. S. McNamara & J. G. Trafton (Eds.), *Proceedings of the 29th Annual Cognitive Science Society* (p. 19). Nashville, TN: Cognitive Science Society.
- Carpenter, S. K.**, Pashler, H., & *Vul, E. (2006). What types of learning are enhanced by a cued recall test? *Psychonomic Bulletin and Review*, 13, 826-830.
- Carpenter, S. K.**, & DeLosh, E. L. (2006). Impoverished cue support enhances subsequent retention: Support for the elaborative retrieval explanation of the testing effect. *Memory and Cognition*, 34, 268-276.
- Carpenter, S. K.**, & DeLosh, E. L. (2005). Application of the testing and spacing effects to name learning. *Applied Cognitive Psychology*, 19, 619-636.
- Carpenter, S. K.** (2005). Some neglected contributions of Wilhelm Wundt to the psychology of memory. *Psychological Reports*, 97, 63-73.
- Carpenter, S. K.** (2002). Cognitive process perspectives on timesharing. In E. D. Heggstad, S. K. Carpenter, W. G. O'Shea, E. L. DeLosh, & B. A. Clegg, *Timesharing: Its future implications for the Navy* (pp. 25-34). Contract No. DAAH04-96-C-0086. Research Triangle Park, NC: U. S. Army Research Office.

MANUSCRIPTS IN PROGRESS:

Carpenter, S. K., Pashler, H., Cepeda, N. J., & *Vul, E. (revision in progress). How does timing of feedback affect recall of facts and names? *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

Pashler, H., Mozer, M. C., Cepeda, N. J., Rohrer, D., & **Carpenter, S. K.** (revision in progress). Does guessing incorrectly impair fact learning? *Journal of Experimental Psychology: Learning, Memory, and Cognition*.

INVITED TALKS:

Carpenter, S. K. (2009, February). *Memory principles that optimize learning and retention: Implications for theory and instruction*. University of Northern Iowa, Cedar Falls, IA.

Carpenter, S. K. (2008, July). *Using tests to optimize learning: Implications for theory and educational practice*. Colorado State University, Fort Collins, CO.

Carpenter, S. K. (2007, November). *Using tests to enhance learning: Implications for education*. University of South Florida, Tampa, FL.

Carpenter, S. K. (2007, November). *Using tests to optimize learning: Implications for theory and educational practice*. Iowa State University, Ames, IA.

Carpenter, S. K., & Pashler, H. (2007, August). *Memory principles that optimize learning and retention: Implications for instruction*. Presented at the Summer Workshop for Teachers, San Diego Unified School Districts, San Diego, CA.

Carpenter, S. K., Pashler, H., Cepeda, N. J., & Alvarez, D. (2007, August). *Applying the principles of testing and spacing to classroom learning*. Paper presented at the Cognitive Science and Student Learning in the Classroom Symposium, Cognitive Science Society, Nashville, TN.

Carpenter, S. K. (2007, June). *Using tests to optimize learning: Implications for education*. Auburn University, Auburn, AL.

Carpenter, S. K., Pashler, H., Wixted, J. T., & *Vul, E. (2006, April). *Are tests effective at enhancing learning?* Paper presented at the Cognition and Student Learning Symposium, American Educational Research Association, San Francisco, CA.

Carpenter, S. K. (2004, April). *Application of the testing and spacing effects to name-learning*. Paper presented at the Ellis-Battig Memory Symposium, Rocky Mountain Psychological Association, Reno, NV.

CONFERENCE PRESENTATIONS:

Kang, S. **Carpenter, S. K.**, Rohrer, D., & Pashler, H. (2009, June). *Does guessing when one doesn't know the answer hurt subsequent learning?* Poster presented at the annual meeting of the Institute of Education Sciences, Washington, DC.

Carpenter, S. K., *Erdman, M., & *Kloeppe, J. (2009, April). *Cue strength as a moderator of the testing effect.* Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Carpenter, S. K., Pashler, H., & *Jones, J. J. (2008, November). *The effects of retrieval practice on associative recall of word pairs.* Poster presented at the annual meeting of the Psychonomic Society, Chicago, IL.

Pashler, H., **Carpenter, S. K.**, & Rohrer, D. (2008, November). *Does guessing with little information interfere with learning?* Paper presented at the annual meeting of the Psychonomic Society, Chicago, IL.

Carpenter, S. K., Pashler, H., Rohrer, D., & *Coburn, N. (2008, June). *Using retrieval practice to enhance learning of complex anatomy structures.* Poster presented at the annual meeting of the Institute of Education Sciences, Washington, DC.

Carpenter, S. K., & Pashler, H. (2008, May). *Using retrieval practice to enhance learning of complex visual information.* Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.

Carpenter, S. K., Pashler, H., Cepeda, N. J., & Alvarez, D. (2008, February). *Using tests to enhance 8th grade students' retention of U. S. history facts.* Poster presented at the annual student/postdoc meeting of the Science of Learning Center, Pittsburgh, PA.

Carpenter, S. K., Pashler, H., Cepeda, N. J., & Alvarez, D. (2008, February). *Using tests to enhance 8th grade students' retention of U. S. history facts.* Paper presented at the annual meeting of the Science of Learning Center, Pittsburgh, PA.

Jones, J. J., Pashler, H., & **Carpenter, S. K.** (2008, January). *Statistical learning for passively viewed, actively recorded and explicitly predicted sequences.* Poster presented at the annual meeting of the Temporal Dynamics of Learning Center, Nashville, TN.

Carpenter, S. K., Pashler, H., Cepeda, N. J., & Alvarez, D. (2008, January). *Using tests to enhance 8th grade students' retention of U. S. history facts.* Poster presented at the annual meeting of the Temporal Dynamics of Learning Center, Nashville, TN.

CONFERENCE PRESENTATIONS, continued:

Carpenter, S. K., Pashler, H., & Cepeda, N. J. (2007, November). *Applying the principles of testing and spacing to classroom learning*. Paper presented at the annual meeting of the Psychonomic Society, Long Beach, CA.

Carpenter, S. K., Pashler, H., Rohrer, D., & Cepeda, N. J. (2007, August). *Does forced guessing cause one to learn the wrong answer?* Poster presented at the symposium on Memory Dynamics and the Optimization of Instruction, American Psychological Association, San Francisco, CA.

Carpenter, S. K., Pashler, H., Wixted, J. T., & *Vul, E. (2007, June). *Item characteristics and task conditions that predict forgetting*. Poster presented at the annual meeting of the Institute for Education Sciences, Washington, DC.

Carpenter, S. K., Pashler, H., Wixted, J. T., & *Vul, E. (2007, May). *Facts, faces, and obscure places: Individual and item characteristics that predict rate of forgetting*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, DC.

Carpenter, S. K., Pashler, H., & Alvarez, D. (2007, January). *The Preuss project: Applying the principles of testing and spacing to classroom learning*. Paper presented at first all-hands meeting of the Temporal Dynamics of Learning Center, La Jolla, CA.

Carpenter, S. K., Pashler, H., Wixted, J. T., & *Vul, E. (2007, January). *The effects of tests on learning and forgetting*. Poster presented at the annual meeting of the Temporal Dynamics of Learning Center, La Jolla, CA.

Carpenter, S. K., Pashler, H., & *Vul, E. (2006, November). *The effects of test timing and feedback timing on the learning of obscure facts*. Poster presented at the annual meeting of the Psychonomic Society, Houston, TX.

Carpenter, S. K., & Pashler, H. (2006, November). *Enhancing learning through retrieval practice: Can covert retrieval speed up visual and visuospatial learning?* Paper presented at the annual meeting of the Psychonomic Society, Houston, TX.

Carpenter, S. K., Pashler, H., & *Vul, E. (2006, May). *What types of learning are enhanced by a cued recall test?* Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.

Carpenter, S. K., Pashler, H., & Wixted, J. T. (2005, November). *The testing effect: Enhanced retention or attenuated forgetting?* Poster presented at the annual meeting of the Psychonomic Society, Toronto, ON.

CONFERENCE PRESENTATIONS, continued:

Pashler, H., **Carpenter, S. K.**, Rohrer, D., & Cepeda, N. J. (2005, November). *Does being forced to guess make one learn the wrong answer?* Paper presented at the annual meeting of the Psychonomic Society, Toronto, ON.

Carpenter, S. K., & DeLosh, E. L. (2004, November). *A multiple-cue hypothesis for the testing effect.* Poster presented at the annual meeting of the Psychonomic Society, Minneapolis, MN.

Carpenter, S. K. (2003, May). *The role of item difficulty in the testing effect.* Poster presented at the Triple Festschrift in honor of Lyle Bourne, Jr., Walter Kintsch, and Tom Landauer, Boulder, CO.

Carpenter, S. K. (2003, April). *Untangling the influences of cue effectiveness and item difficulty in the testing effect.* Paper presented at the annual meeting of the Rocky Mountain Psychological Association, Denver, CO.

Carpenter, S. K. (2003, April). *Wundt's neglected contributions to the psychology of memory.* Paper presented at the annual meeting of the Rocky Mountain Psychological Association, Denver, CO.

Carpenter, S. K., & DeLosh, E. L. (2002, April). *The role of retrieval strategy in memory for high- and low-frequency words.* Poster presented at the annual meeting of the Rocky Mountain Psychological Association, Park City, UT.

TEACHING:

Instructor of record for the following courses:

- **PSY 302 Research Methods** (FA 2008, SP 2009): Undergraduate course emphasizing a hands-on approach to research in psychology.
- **PY 652 Data Analysis Methods** (FA 2004): Graduate course exploring the tools required for data analysis in psychology.
- **PY 453 Cognitive Psychology Laboratory** (FA 2002, SP 2003, SU 2004): Undergraduate course emphasizing a hands-on approach to human cognition.
- **PY 457 Physiological Psychology Laboratory** (FA 2003, SP 2004): Undergraduate course exploring the physiological bases for human behavior.

Teaching assistant for the following courses:

- **PY 100 Introduction to Psychology**; Instructor: Dawn Naninni (FA 2001, SP 2002)
- **PY 401 History and Systems of Psychology**; Instructor: Wayne Viney (FA 2001)
- **PY 452 Cognitive Psychology**; Instructor: Benjamin Clegg (SP 2002)

PROFESSIONAL AND DEPARTMENTAL SERVICE:

- Ad-hoc journal reviewer for *Journal of Experimental Psychology: Learning, Memory, & Cognition*
- Ad-hoc journal reviewer for *Journal of Memory & Language*
- Ad-hoc journal reviewer for *Psychonomic Bulletin & Review*
- Ad-hoc journal reviewer for *Applied Cognitive Psychology*
- Ad-hoc journal reviewer for *Experimental Psychology*
- Ad-hoc journal reviewer for *Memory*
- Ad-hoc grant reviewer for the Dutch Program Council for Educational Research
- Graduate Student Representative, Colorado State University Cognitive and Behavioral Neuroscience Programs (2003-2004)
- Volunteer Mentor for Colorado State University McNair Scholars Program (2003)

PROFESSIONAL AFFILIATIONS:

- American Psychological Association (Member since 2005; Affiliate since 1997)
- Association for Psychological Science (Member since 2005)
- Midwestern Psychological Association (Member since 2008)
- Psychonomic Society (Member since 2007; Associate Member since 2005)

AWARDS FOR RESEARCH, SCHOLARSHIP, AND SERVICE:

- Martin E. P. Seligman Award for Outstanding Research in Applied Psychology (2003). *Application of the testing and spacing effects to name-learning.*
- Colorado State University Scholarship Recipient (2001).

PROFESSIONAL DEVELOPMENT:

- Grant writing seminar, Colorado State University (FA 2004)
- College teaching seminar, Colorado State University (FA 2002)

REFERENCES:

Benjamin Clegg, Ph.D.
Associate Professor
Department of Psychology
Colorado State University
Fort Collins, CO 80523
(970) 491-2211
benjamin.clegg@colostate.edu

Edward L. DeLosh, Ph.D.
Associate Professor
Department of Psychology
Colorado State University
Fort Collins, CO 80523
(970) 491-5389
ed.delosh@colostate.edu

Alice F. Healy, Ph.D.
Professor
Department of Psychology
University of Colorado, Boulder
345 UCB, Boulder, CO 80309-0345
(303) 492-5032
ahealy@psych.colorado.edu

Hal Pashler, Ph.D.
Professor
Department of Psychology
University of California, San Diego
9500 Gilman Drive, La Jolla, CA 92093
(858) 534-3974
hpashler@ucsd.edu

John T. Wixted, Ph.D.
Professor
Department of Psychology
University of California, San Diego
9500 Gilman Drive, La Jolla, CA 92093
(858) 534-3956
jwixted@ucsd.edu