

Doug Rohrer

Curriculum Vitae

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University of South Florida
Psychology PCD4118G
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Education

Ph. D. in Psychology	University of California, San Diego, 1994
M. A. in Psychology	University of California, San Diego, 1992
B. S. in Mathematics	College of William and Mary, 1984

Academic Positions

Professor	Psychology, University of South Florida	2010 -
Associate Professor	Psychology, University of South Florida	2003 - 2010
Assistant Professor	Psychology, University of South Florida	1998 - 2003
Assistant Professor	Psychology, George Washington University	1995 - 1998
Postdoctoral Researcher	Psychology, University of California, San Diego	1994 - 1995
High School Teacher	Mathematics, Pinewood School, Los Altos Hills, CA	1986 - 1990

Honors and Awards

Fellow, Psychonomic Society, 2017
Outstanding Graduate Teaching Assistant Mentor, University of South Florida, 2004
Faculty International Travel Award, University of South Florida, 2001
Junior Scholar Award, George Washington University, 1997
Dissertation Award, Association of Psychological Science, 1995
Dissertation Award, American Psychological Association, Division 20, 1995
Graduate Fellowship, UC San Diego, 1991
Phi Beta Kappa, College of William and Mary, 1984

Research Interests

Learning strategies, especially mathematics learning
Replicability crisis, especially scientific misconduct and data fraud

Federal Funding

PI	An Efficacy Study of Interleaved Mathematics Practice \$1,521,294	Institute of Education Sciences (U.S. Dept. of Education)	2016 - 2020
PI	Interleaved Mathematics Practice \$901,694	Institute of Education Sciences (U.S. Dept. of Education)	2011 - 2016
Co-PI	Harnessing Retrieval Practice to Enhance Learning \$1,565,989	Institute of Education Sciences (U.S. Dept. of Education)	2007 - 2011
Co-PI	Optimizing Resistance to Forgetting \$924,925	Institute of Education Sciences (U.S. Dept. of Education)	2004 - 2007
Co-PI	Optimizing Resistance to Forgetting \$500,000	Institute of Education Sciences (U.S. Dept. of Education)	2002 - 2004

Sample of Research Mentions in Popular Media

New York Times 2010, 2011, 2013, 2014
 NPR 2011, 2014
 Science 2010
 Scientific American 2013, 2015
 Scientific American Mind 2015
 The Chronicle of Higher Education 2009
 Washington Post 2010

Teaching

Undergraduate Courses

Cognitive Psychology
 Introductory Psychology
 Statistics
 Research Methods

Graduate Courses

Cognitive Psychology
 Mathematical Methods
 Memory
 Learning

Public Service

Great American Teach-In 2014, 2015, 2016
 Hillsborough County STEM Fair Judge 2016, 2017

University Service

Awards Committee, Psychology, 2000, 2001, 2009, 2010 (chair)
 Faculty Advisor, Psi Chi, 2006 - 2008
 Faculty Advisor, University Psychology Association, 2006 - 2007
 Faculty Development Committee, College of Arts and Sciences, 2007 - 2008
 Faculty Lecture Program, 2002 - 2003
 Faculty Memorial Committee, 2003 (chair)
 Faculty Search Committee, 1996, 1997, 2001, 2002, 2007 (chair), 2009, 2012, 2015
 Department Future Committee, Psychology, 2010-2011
 Graduate Admissions, Psychology 2000-2001 (chair), 2002-2003 (chair)
 Graduate Program Committee, Psychology (2010-2012)
 Graduate Teaching Coordinator, 1999 - 2008
 IRB Committee, Psychology, 1998 - 2000, 2017, 2018
 Tenure and Promotion Committee, Psychology 2006, 2014, 2016, 2017
 Tenure and Promotion Committee, School of Social Sciences (chair, 2013 - 2015)
 Undergraduate Committee, College of Arts and Sciences, 2000 - 2002
 Undergraduate Honors, Master's Thesis, and Dissertation Committees: 85+

Peer Review and Editorial Service

Guest Editor

Journal of Experimental Psychology: General

Ad Hoc Grant Review

Army Research Laboratory
 National Science Foundation
 Wellcome Trust (Great Britain)

Ad Hoc Journal Review (56 journals)

Advances in Public Health
 Anatomical Sciences Education
 Applied Cognitive Psychology
 Applied Psycholinguistics
 Attention, Perception, & Psychophysics
 BMC Medical Education
 Behavioral Research Methods
 Bilingualism: Language and Cognition
 Cognition
 Cognitive Processing
 Cognitive Psychology
 Cognitive Research: Principles and Implications
 Cognitive Science
 Computers & Education
 Educational Psychologist
 Educational Psychology

Educational Psychology Review
 European Journal of Cognitive Psychology
 Experimental Aging Research
 Fields Mathematics Education Journal
 Human Performance
 Innovative Teaching
 Instructional Science
 Journal of Applied Research in Memory and Cognition
 Journal of Cognitive Education and Psychology
 Journal of Cognitive Psychology
 Journal of Computational Neuroscience
 Journal of Educational Psychology
 Journal of Experimental Child Psychology
 Journal of Experimental Psychology: Applied
 Journal of Experimental Psychology: General
 Journal of Experimental Psychology: Human Perception and Performance
 Journal of Experimental Psychology: Learning, Memory, and Cognition
 Journal of Memory and Language
 Journal of Online Learning and Teaching
 Journal of Open Psychology Data
 Language Learning
 Learning and Individual Differences
 Learning and Instruction
 Memory
 Memory & Cognition
 Mind, Brain, and Education
 Perceptual & Motor Skills
 Perspectives on Medical Education
 Perspectives on Psychological Science
 PLOS One
 Psychological Bulletin
 Psychological Review
 Psychological Science
 Psychological Science in the Public Interest
 Psychonomic Bulletin & Review
 Quarterly Journal of Experimental Psychology
 System
 Translational Issues in Psychology
 Trends in Cognitive Neuroscience
 Zeitschrift für Psychologie

Refereed Journal Articles

Pashler, H., Rohrer, D., Abramson, I., Wolfson, T. & Harris, C. (2016). Response to comments by Chatterjee, Rose, and Sinha. *Basic and Applied Social Psychology*, 38, 41-46.

Pashler, H., Rohrer, D., Abramson, I., Wolfson, T. & Harris, C. (2016). A social priming data set with

- troubling oddities. *Basic and Applied Social Psychology*, 38, 3-19.
- Pashler, H., Bjork, R., McDaniel, M., & Rohrer, D. (2015). Comment on Sternberg's review of Zhang. *The American Journal of Psychology*, 128, 122-125.
- Rohrer, D. (2015). Student instruction should be distributed over long time periods. *Educational Psychology Review*, 27, 635-643.
- Rohrer, D., Dedrick, R. F., & Stershic, S. (2015). Interleaved practice improves mathematics learning. *Journal of Educational Psychology*, 107, 900-908.
- Rohrer, D., Pashler, H., & Harris, C. (2015). Do subtle reminders of money change people's political views? *Journal of Experimental Psychology: General*, 144, e73-e85.
- Tran, R., Rohrer, D., & Pashler, H. (2015). Retrieval practice: The lack of transfer to deductive inferences. *Psychonomic Bulletin & Review*, 22, 135-140.
- Rohrer, D., Dedrick, R. F., & Burgess, K. (2014). The benefit of interleaved mathematics practice is not limited to superficially similar kinds of problems. *Psychonomic Bulletin & Review*, 21, 1323-1330.
- Harris, C. R., Coburn, N., Rohrer, D., & Pashler, H. (2013). Two failures to replicate high-performance-goal priming effects. *PLoS ONE* 8(8): e72467. doi:10.1371/journal.pone.0072467
- Pashler, H., Rohrer, D., & Harris, C. (2013). Can the goal of honesty be primed? *Journal of Experimental Social Psychology*, 14, 959-964.
- Carpenter, S. K., Cepeda, N. J., Rohrer, D., Kang, S. H. K., & Pashler, H. (2012). Using spacing to enhance diverse forms of learning: Review of recent research and implications for instruction. *Educational Psychology Review*, 24, 369-378.
- Rohrer, D. (2012). Interleaving helps students distinguish among similar concepts. *Educational Psychology Review*, 24, 355-367.
- Rohrer, D., & Pashler, H. (2012). Learning styles: Where's the evidence? *Medical Education*, 46, 634-635.
- Kang, S. H. K., Pashler, H., Cepeda, N. J., Rohrer, D., Carpenter, S. K., & Mozer, M. C. (2011). Does incorrect guessing impair fact learning? *Journal of Educational Psychology*, 103, 48-59.
- Rohrer, D., & Pashler, H. (2010). Recent research on human learning challenges conventional instructional strategies. *Educational Researcher*, 39, 406-412.
- Rohrer, D., Taylor, K., & Sholar, B. (2010). Tests enhance the transfer of learning. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 233-239.
- Taylor, K., & Rohrer, D. (2010). The effect of interleaving practice. *Applied Cognitive Psychology*, 24, 837-848.
- Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2009). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest*, 9, 105-119.
- Rohrer, D. (2009). Avoidance of overlearning characterizes the spacing effect. *European Journal of Cognitive Psychology*, 21, 1001-1012.
- Rohrer, D. (2009). The effects of spacing and mixing practice problems. *Journal for Research in Mathematics Education*, 40, 4-17.

- Cepeda, N. J., Mozer, M. C., Coburn, N., Rohrer, D., Wixted, J. T., & Pashler, H. (2009). Optimizing distributed practice: Theoretical analysis and practical implications. *Experimental Psychology, 56*, 236–246.
- Cepeda, N. J., Vul, E., Rohrer, D., Wixted, J. T., & Pashler, H. (2008). Spacing effects in learning: A temporal ridge of optimal retention. *Psychological Science, 11*, 1095–1102.
- Pashler, H., Rohrer, D., Cepeda, N. J., & Carpenter, S.K. (2007). Enhancing learning and retarding forgetting: Choices and consequences. *Psychonomic Bulletin & Review, 14*, 187–193.
- Rohrer, D., & Pashler, H. (2007). Increasing retention without increasing study time. *Current Directions in Psychological Science, 16*, 183–186.
- Rohrer, D., & Taylor, K. (2007). The shuffling of mathematics practice problems boosts learning. *Instructional Science, 35*, 481–498.
- Cepeda, N. J., Pashler, H., Vul, E., Wixted, J. T., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: A review and quantitative synthesis. *Psychological Bulletin, 132*, 354–380.
- Rohrer, D., & Taylor, K. (2006). The effects of overlearning and distributed practice on the retention of mathematics knowledge. *Applied Cognitive Psychology, 20*, 1209–1224.
- Pashler, H., Cepeda, N. J., Wixted, J. T., & Rohrer, D. (2005). When does feedback facilitate learning of words? *Journal of Experimental Psychology: Learning, Memory, and Cognition, 31*, 3–8.
- Rohrer, D., Taylor, K., Pashler, H., Cepeda, N. J., & Wixted, J. T. (2005). The effect of overlearning on long-term retention. *Applied Cognitive Psychology, 19*, 361–374.
- Rohrer, D. (2003). The natural appearance of unnatural incline speed. *Memory & Cognition, 31*, 816–826.
- Rohrer, D., & Pashler, H. (2003). Concurrent task effects on memory retrieval. *Psychonomic Bulletin & Review, 10*, 96–103.
- Rohrer, D. (2002). The breadth of memory search. *Memory, 10*, 291–301.
- Rohrer, D. (2002). Misconceptions about incline speed for nonlinear slopes. *Journal of Experimental Psychology: Human Perception and Performance, 28*, 963–973.
- Rohrer, D., Salmon, D. P., Wixted, J. T., & Paulsen, J. S. (1999). The disparate effects of Alzheimer's disease and Huntington's disease on semantic memory. *Neuropsychology, 13*, 381–388.
- Rohrer, D., Pashler, H. & Etchegaray, J. (1998). When two memories can and cannot be retrieved concurrently. *Memory & Cognition, 26*, 731–739.
- Rohrer, D. (1996). On the relative and absolute strength of a memory trace. *Memory & Cognition, 24*, 188–201.
- Rohrer, D., Wixted, J. T., Salmon, D. P., & Butters, N. (1995). Retrieval from semantic memory and its implications for Alzheimer's disease. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 21*, 1127–1139.
- Rohrer, D., & Wixted, J. T. (1994). An analysis of latency and interresponse time in free recall. *Memory & Cognition, 22*, 511–524.
- Wixted, J. T., & Rohrer, D. (1994). Analyzing the dynamics of free recall: An integrative review of the empirical literature. *Psychonomic Bulletin & Review, 1*, 89–106.

Wixted, J. T., & Rohrer, D. (1993). Proactive interference and the dynamics of free recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 19, 1024–1039.

Slooman, S. A., Bower, G. H., & Rohrer, D. (1991). Congruency effects in part-list cuing inhibition. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 17, 974–982.

Non-Refereed Invited Article

Pashler, H., Rohrer, D., & Cepeda, N. J. (2006). Temporal spacing and learning. *APS Observer*, 19, 30, 38.

Instructional Books

Rohrer, D. (1994). *More Thought Provokers*. Berkeley, CA: Key Curriculum Press.

Rohrer, D. (1993). *Thought Provokers*. Berkeley, CA: Key Curriculum Press.

* Each is a collection of mathematics and logic problems designed for mathematics students.

Conference Presentations and Invited Talks

Rohrer, D., Dedrick, R. F., & Stershic, S. (2016, April). *Interleaved mathematics practice*. Paper presented at the IES Math Center conference. Arlington, VA.

Dedrick, R.F., Rohrer, D., & Stershic, S. (2016, April). *Content analysis of practice problems in 7th grade mathematics textbooks: Blocked vs. interleaved practice*. Paper presented at the Annual Meeting of the American Educational Research Association, Washington, DC.

Rohrer, D., Dedrick, R. F., & Stershic, S. (2015, December). *Interleaved practice improves mathematics practice*. Paper presented at the NCER/NCSEER 2015 Principal Investigators Meeting, Washington, D.C.

Rohrer, D. (2015, May). Evidence-based instruction: What works, what doesn't. Invited plenary address at the Summer Teaching Symposium at the Academy for Teaching and Learning Excellence (ATLE), University of South Florida, Tampa, FL.

Pashler, H., Rohrer, D., & Harris, C. (2015, April). Social priming and the replicability crisis. Paper presented at the Annual Meeting of the Society of Experimental Psychologists, Charlottesville, VA.

Rohrer, D., Dedrick, R. F., & Stershic, S. (2014, November). *Interleaved practice improves mathematics practice*. Paper presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA.

Rohrer, D. (2013, September). *Applying cognitive science principles to improve student learning in algebra*. [Invited Discussant] Paper presented at the fall conference of the Society for Research on Educational Effectiveness, Washington, D.C.

Rohrer, D., Dedrick, R., & Burgess, K. (2013, September). *An efficacy study of interleaved mathematics practice*. Paper presented at the fall conference of the Society for Research on Educational Effectiveness, Washington, D.C.

- Rohrer, D., Dedrick, R., & Burgess, K. (2013, May). *Interleaving helps students learn related skills and concepts*. Paper presented at the 25th Annual Convention of the Association for Psychological Science, Washington, D.C.
- Rohrer, D. (2011, April). *Learning strategies: What works, and how we know what works*. [Invited Discussant] Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.
- Kang, S. H. K., Pashler, H., & Rohrer, D. (2010, November). *Effects of spaced rereading and retrieval practice on prose recall*. Paper presented at the 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.
- Rohrer, D., Taylor, K., Carpenter, S. K., Pashler, H., & Kang, S. H. K. (2010, June). *Tests can enhance the transfer of learning*. Paper presented at the Annual Meeting of the Institute of Education Sciences, U.S. Department of Education, Washington, D.C.
- Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2010, May). *Learning styles: Concepts and evidence*. Paper presented at the 22nd Annual Convention of the Association for Psychological Science, Boston, MA.
- Kang, S. H. K., Pashler, H., Rohrer, D., & Carpenter, S. K. (2009, November). *Is subsequent learning hurt by prior erroneous guessing?* Paper presented at the 50th Annual Meeting of the Psychonomic Society, Boston, MA.
- Kang, S. H. K., Carpenter, S. K., Rohrer, D., & Pashler, H. (2009, June). *Does guessing when one doesn't know the answer hurt subsequent learning?* Paper presented at the Annual Meeting of the Institute of Education Sciences, U.S. Department of Education, Washington, D.C.
- Rohrer, D., Taylor, K., & Pashler, H. (2009, May). *The effects of spacing and mixing on mathematics learning*. Paper presented at the 21st Annual Convention of the Association for Psychological Science, San Francisco, CA.
- Pashler, H., Carpenter, S. K., & Rohrer, D. (2008, November). *Does guessing with little information interfere with learning?* Paper presented at the 49th 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*. Paper presented at the Annual Meeting of the Institute of Education Sciences, U.S. Department of Education, Washington, D.C.
- Rohrer, D., & Taylor, K. (2008, June). *Spacing and interleaving of practice problems improve mathematics proficiency*. Paper presented at the Annual Meeting of the Institute for Education Sciences, U.S. Department of Education, Washington, D.C.
- Rohrer, D., & Taylor, K. (2007, November). *Improving mathematics learning by rearranging practice problems*. Paper presented at the 48th 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?* Paper presented at the 115th Annual Convention of the American Psychological Association, San Francisco, CA.
- Rohrer, D. (2006, November). *A reduction in total study time can eliminate the spacing effect*. Paper presented at the 47th Annual Meeting of the Psychonomic Society, Houston, TX.

- Taylor, K., Rohrer, D., & Pashler, H. (2006, May). *The benefit of mixed practice on the long-term retention of mathematics skills*. Paper presented at the 18th Annual Convention of the Association for Psychological Science, New York, NY.
- Pashler, H., Rohrer, D., Cepeda, N., & Wixted, J.T. (2005, May). *Optimizing resistance to forgetting*. Paper presented at the 17th Annual Convention of the American Psychological Society, Los Angeles, CA.
- Rohrer, D. (2005, May). *Optimizing resistance to forgetting: Spacing and overlearning*. Invited talk for the Institute for Education Sciences, U.S. Department of Education, Washington, DC.
- Taylor, K., Rohrer, D., & Pashler, H. (2005, May). *The effect of overlearning and distributed practice on the long-term retention of mathematical skills*. Paper presented at the 17th Annual Convention of the American Psychological Society, Los Angeles, CA.
- Rohrer, D. (2005, April). *Why people forget everything they learn in school*. Psychology Department, Rutgers University at Newark, Newark, New Jersey. [Invited Talk]
- Pashler, H., Cepeda, N., Rohrer, D., & Wixted, J. T. (2004, November). The spacing effect: Useful or just interesting? Paper presented at the 45th Annual Meeting of the Psychonomic Society, Minneapolis, MN.
- Rohrer, D., Taylor, K., & Pashler, H. (2004, May). *Overlearning produces rapidly diminishing benefits*. Paper presented at the 16th Annual Convention of the American Psychological Society, Chicago, IL.
- Pashler, H., Cepeda, N., Wixted, J.T., & Rohrer, D. (2004, May). *Optimizing resistance to forgetting*. Paper presented at the Institute for Education Sciences, U.S. Department of Education, Washington, DC.
- Pashler, H., Rohrer, D., Cepeda, N., & Wixted, J. T. (2004, May). *Feedback and learning: A fine-grained analysis*. Paper presented at the 16th Annual Convention of the American Psychological Society, Chicago, IL.
- Rohrer, D., Taylor, K., Pashler, H., Cepeda, N., & Wixted, J. T. (2004, April). *Overlearning: A bad way to boost long-term retention*. Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA.
- Cepeda, N., Pashler, H., Wixted, J. T., & Rohrer, D. (2004, April). *Effects of spacing of practice on long-term retention of knowledge*. Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA.
- Rohrer, D. (2003, May). *Misconceptions about motion may or may not be perceptually realistic*. Paper presented at the 15th Annual Convention of the American Psychological Society, Atlanta, GA.
- Rohrer, D. (2002, November). *The influence of animation on judgments of incline speed*. Paper presented at the 43rd Annual Meeting of the Psychonomic Society, Kansas City, MO.
- Rohrer, D. (2001, November). *Gravity: It's not just a good idea – it's the law*. Paper presented at the 42nd Annual Meeting of the Psychonomic Society, Orlando, FL.
- Rohrer, D., & Pashler, H. (2001, July). *Dual-task effects on memory retrieval: A cumulative latency analysis*. Paper presented at the 3rd International Conference on Memory, Valencia, Spain
- Rohrer, D. (2000, November). *The best-fitting function may still be the wrong function*. Paper presented at the 41st Annual Meeting of the Psychonomic Society, New Orleans, LA.

- Rohrer, D. (1999, November). *The laws of gravity and the people who oppose them*. Paper presented at the 40th Annual Meeting of the Psychonomic Society, Los Angeles, CA.
- Rohrer, D. (1998, November). *False beliefs concerning everyday motion*. Paper presented at the 39th Annual Meeting of the Psychonomic Society, Dallas, TX.
- Rohrer, D. (1997, November). *Deficits of memory retrieval and the discrimination of dementias*. Paper presented at the 38th Annual Meeting of the Psychonomic Society, Philadelphia, PA.
- Rohrer, D., & Pashler, H. (1996, November). *When retrieving twice as much takes four times as long*. Paper presented at the 37th Annual Meeting of the Psychonomic Society, Chicago, IL.
- Wixted, J. T. & Rohrer, D. (1992, November). *Free recall latency and search-based models of retrieval*. Paper presented at the 33rd Annual Meeting of the Psychonomic Society, St. Louis, MO.