

**MICHELLE DENISE MILLER**  
**CURRICULUM VITAE**

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**PRESENT POSITION:** Professor, NAU Department of Psychological Sciences  
Director, NAU First Year Learning Initiative

**EDUCATION**

1997 University of California, Los Angeles  
Ph.D. in psychology  
Major area: Cognitive Psychology; Minor area: Behavioral Neuroscience

1990 Pomona College  
B.A. in psychology, magna cum laude

**HONORS AND AWARDS**

2015 Sloan-C Effective Practice Award  
2011-present President's Distinguished Teaching Fellow  
2007-present Redesign Scholar, National Center for Academic Transformation  
1995 National Research Service Award Predoctoral Training Fellowship  
1991-1994 National Science Foundation Graduate Fellowship

**RESEARCH INTERESTS**

Study techniques and student performance  
Technology and cognition  
Applied memory techniques  
Theories of memory  
Attention  
Psycholinguistics

**BOOK**

Miller, M.D. (2014). *Minds Online: Teaching Effectively With Technology*. Cambridge, MA: Harvard University Press.

**PEER-REVIEWED ARTICLES**

Miller, M.D. (2017). Is the educational technology revolution losing steam? What academic leaders can do to keep us moving forward. *Change: The Magazine of Higher Learning*, 49, 18-25.

Miller, M.D., & Scarnati, B. (2014). Engaging faculty for student success: The First Year Learning Initiative. *Teacher-Scholar: The Journal of the State Comprehensive University*, 6.

Miller, M.D. (2011). What college teachers should know about memory: A perspective from cognitive psychology. *College Teaching*, 59, 117-122.

Miller, M.D., & Rader, M.E. (2010). Two heads are better than one: Collaborative development of an online course content template. *Journal of Online Learning and Teaching*, 6, 246-255.

Frazer, A.K., & Miller, M.D. (2009). Double standards in sentence structure: Passive voice in narratives describing domestic violence. *Journal of Language and Social Psychology*, 28, 62-71.

Miller, M.D. (2009) What the science of cognition tells us about instructional technology. *Change: The Magazine of Higher Learning*, 41, 71-74.

Souter, M.A., & Miller, M.D. (2007). Do animal-assisted activities effectively treat depression? A meta-analysis. *Anthrozoös*, 20, 167-180.

Dickson, K.L., & Miller, M.D. (2006). Effect of crib card construction and use on exam performance. *Teaching of Psychology* (Faculty Forum), 33, 39-40.

Dickson, K.L., Devoley, M.S., & Miller, M.D. (2006). Effect of study guide exercises on multiple-choice exam performance in introductory psychology. *Teaching of Psychology* (Faculty Forum), 33, 40-42.

Dickson, K.L., & Miller, M.D. (2005). Authorized crib cards do not improve exam performance. *Teaching of Psychology*, 32, 230-233.

Dickson, K.L., Miller, M.D., & Devoley, M. (2005). Effect of textbook study guides on student performance in introductory psychology. *Teaching of Psychology*, 32, 34-39.

Miller, M.D., & Johnson, J.S. (2004). Phonological and lexical-semantic short-term memory and their relationship to sentence production in older adults. *Aging, Neuropsychology, and Cognition*, 11, 395-415.

Martin, R.C., Miller, M.D., & Vu, H. (2004). Lexical-semantic retention and speech production: Further evidence from normal and brain-damaged participants for a phrasal scope of planning. *Cognitive Neuropsychology*, 21, 625-644.

Henley, N.M., Miller, M.D., Beazley, J.A., Nguyen, D.N., Kaminsky, D., & Sanders, R. (2002). Frequency and specificity of referents to violence in news reports of anti-gay attacks. *Discourse and Society*, 13, 75-104.

Miller, M.D., & MacKay, D.G. (1996). Relations between language and memory: The case of repetition deafness. *Psychological Science*, 7, 347-351.

MacKay, D.G., & Miller, M.D. (1996). Can cognitive aging contribute to fundamental psychological theory? Repetition deafness as a test case. *Aging, Neuropsychology, and Cognition*, 3, 169-186.

Henley, N.M., Miller, M.D., & Beazley, J. (1995). Syntax, semantics, and sexual violence: Agency and the passive voice. *Journal of Language and Social Psychology*, 14, 60-84.

MacKay, D.G., Miller, M.D., & Schuster, S.P. (1994). Repetition blindness and aging: Evidence for a binding deficit involving a specific connection. *Psychology and Aging*, 9, 251-258.

Miller, M.D., & MacKay, D.G. (1994). Repetition deafness: Repeated words in computer compressed speech are difficult to encode and recall. *Psychological Science*, 5, 47-51.

MacKay, D.G., & Miller, M.D. (1994). Semantic blindness: Repeated concepts are difficult to encode and recall under time pressure. *Psychological Science*, 5, 52-55.

## OTHER PUBLICATIONS

Miller, M.D. (2015, September 24). Learning from PowerPoint: Is it time for teachers to move on? *The Conversation*, U.S. edition.

Miller, M.D. (2015, June 26). Can millennials pay attention to classwork while texting, tweeting, and being on Facebook? *The Conversation*, U.S. edition.

Miller, M.D. (2014, December 2). Tweet and you'll miss it. *Inside Higher Ed*.

Miller, M.D. (2014, November). Helping students memorize: Tips from cognitive science. *The Teaching Professor*, 28, 3.

Scarnati, B. & Miller, M.D. (2013). Death of a metaphor: Why you should never talk to faculty as if a university is a business. *Academic Leader* (Magna Publications), December 2013.

Demir, M., Birkett, M., Dickson, K., & Miller, M. (Eds.). (2012). *Psychological Science in Action: Applying Psychology to Everyday Issues*. San Diego: Cognella.

Martin, R.C., & Miller, M.D. (2002). Sentence comprehension deficits: Independence and interaction of syntax, semantics, and working memory. In A. Hillis (Ed.), *Handbook of Adult Language Disorders : Integrating Cognitive Neuropsychology, Neurology, and Rehabilitation*. New York: Psychology Press.

MacKay, D.G., Abrams., L., Pedroza, M.J., & Miller, M.D. (1996). Cross-language facilitation, semantic blindness, and the relation between language and memory: A reply to Altarriba and Soltano. *Memory and Cognition*, 24, 712-718.

MacKay, D.G., & Miller, M.D. (1996). Neoconnectionism and information-processing stages: Do they connect? Review of *The Structure of Long-Term Memory*, by Wolfgang Klimesch. *The American Journal of Psychology*, 109, 162-171.

## **SELECTED PRESENTATIONS AND WORKSHOPS**

Getting Into the Minds of Learners to Guide Teaching with Technology. (August, 2016). Keynote presentation, Distance Teaching and Learning Conference, University of Wisconsin-Madison.

Tang, X., Miller, M., & Kang, S. (May, 2016). Self-regulated category learning: Category similarity affects study sequencing choices. Poster presented at the International Meeting of the Psychonomic Society, Granada, Spain.

Fulfilling Technology's Promise to Learners: Why Connections Matter. (February, 2016). Opening keynote, FantasTech Virtual Conference.

Lifelong Learning – And Teaching. (December, 2015). University commencement address, Northern Arizona University.

Leveraging Cognitive Science and Instructional Technology to Build Thinking Skills. (October, 2015). Preconference workshop, Teaching Professor Technology Conference.

Implementing a Cognitive Framework for Online Learning: Bringing Theory to Practice. (October, 2015). Invited talk, Online Learning Consortium International Conference.

Focus, Remember, Motivate: Research-Based Ideas for Enhancing Teaching and Learning. (October, 2015). Faculty development workshop, SUNY Oswego.

Design for the Mind: Strategies from the Psychology of Learning. (June, 2015). Keynote address, Faculty Summer Institute, Governors State University.

Design for the Mind: What Cognitive Science Tells Us About Teaching with Technology. (February, 2015). Invited talk, SUNY Online Learning Summit.

Using Cognitive Psychology to Create Compelling Learning Experiences. (February, 2015). Faculty development workshop, University of Texas, El Paso.

Leveraging Cognitive Psychology to Create Compelling Online Learning Experiences (Part 1: Attention and Memory; Part 2, Higher Thought Processes). (March, 2014). Faculty development workshop, New Mexico State University.

Teaching for Student Engagement. (September, 2013 and February, 2014). Two-day course redesign workshop, Troy University.

Redesigning 101: Improving Learning and Outcomes in Foundational Courses. (March, 2013). Course redesign workshop, Metropolitan State University of Denver.

Redesigning 101: Improving Learning and Outcomes in Foundational Courses. (February, 2012). Course redesign workshop, University of Nebraska-Omaha.

Redesigning 101: A Mini-course and Workshop on Improving Learning and Outcomes in Foundational Courses. (January, 2011). Three-day course redesign workshop, California State University, Fresno.

Redesigning 101: How and Why to Redesign Foundational Courses. (April, 2010). Course redesign workshop, University of Arizona.

### **SELECTED SERVICE ACTIVITIES (2007-Present)**

Consulting Editor, *College Teaching* (April 2013-present)

Faculty mentor (NAU, September 2014-present)

Member, Re-Envisioning the First Year Working Group (NAU, February 2016-present)

Member, Retention Working Group – Underprepared Students (NAU, February-May 2016)

Member, Faculty Grants Program Committee (NAU, 2015-2016)

Member, University College Faculty Status Committee (NAU, 2015-2016)

Co-director, First Year Learning Initiative (NAU, 2011-2014)

Convener and planning committee, Minds Online Faculty Symposium (NAU, February-March 2015)

Chair, NAU Department of Psychology (2011-2012)

Member, NAU University College Task Force (AY 2011-2012)

Co-convener, Faculty Development workshop titled “Deepening the Experience of First-Year Students’ Learning Experiences” (NAU, May 2012)

Participant, Academic Affairs Division Leadership Group (NAU, 2010-2012).

Conference convener, Redesign Mini-Conference (NAU, January 2010)

Representative for the College of Social and Behavioral Sciences, NAU Faculty Senate (2009-2011)

Member, NAU Faculty Senate Budget Council (2009-2010)

Member, NAU Undergraduate Studies Committee (2010)

Director, Course Redesign Team (NAU, 2009-present)

Chair, Social/Personality Faculty Search Committee (NAU, Fall 2008)

Chair, Psychology Department Faculty Status/Annual Review Committee (NAU, 2007-2008)

Member, SBS Promotion and Tenure Committee (NAU, 2007-2008)

Presenter, Faculty Development Series, “Using Instructional Technology” (NAU, February 2008)

Member, Psychology Department Undergraduate Curriculum Committee (NAU, 2007-2010)

Member, Psychology Department Assessment Committee (NAU, 2007-present)

Redesign Scholar, National Center for Academic Transformation (NCAT; 2006-present)

Presenter, Strategies for Success student orientation event (NAU, June 2007)

Course Coordinator, Introduction to Psychology (NAU, 2006-2009)

### **GRANT PROPOSALS**

2015                      National Science Foundation, Education Core Research Grants Program. PI: Sean Kang; Co-PI: Michelle Miller. Applying Cognitive Science to Improve Learning and Reasoning in Science. Amount requested for NAU portion of the project: \$274,870. Not funded.

- 2010 National Science Foundation, FIRE program. PI: Michelle Miller. Co-PI: Elizabeth Brauer. Using Cognitive Psychology to Promote Academic Success in Engineering Students. Amount requested: \$234,266. Not funded.
- 2010 National Science Foundation, REESE program. PI: Elizabeth Brauer. Co-PI: Michelle Miller. Cognitive Psychology Guidance in Effectively Utilizing Technology in Circuit Analysis Skill Development. Amount requested: \$134,325.00. Not funded.
- 2007 Arizona Board of Regents / Learner-Centered Education Grants Program. PIs: K. Laurie Dickson, Michelle Miller and Derrick Wirtz. Support for redesigning Psychology 101: Introduction for Psychology for increased student success, student engagement and cost savings. Funded in the amount of \$49,992. Final grant report delivered April, 2009.
- 2005 Center for Technology-Enhanced Learning (web-based curriculum development grant, Northern Arizona University. PIs: K. Laurie Dickson, Michelle Miller, and Derrick Wirtz.) Support for web-enhancing the face-to-face version of PSY 101. Funded in the amount of \$18,100.
- 2003 Center for Technology-Enhanced Learning (teaching-related intramural grant, Northern Arizona University). Support for developing a web version of PSY 101. Funded in the amount of \$5,000.
- 2003 National Science Foundation. PI: Michelle Miller. Title: Teaching Science Vocabulary to Low-Working Memory and ESL Students. Amount requested: \$390,599. Not funded.
- 2002 National Science Foundation. PI: Shirley Ann Becker; co-PIs: Levi Esquerra, Laurence Gishey, Jo-Mae Maris, and Michelle Miller. Title: Information and Communications Technology (ICT) - Accessible Healthcare in Tribal Communities. Amount requested: \$1,104,103. Funded in the amount of \$50,000.
- 2002 National Institutes of Health. PI: Shirley Ann Becker; co-PI: Michelle Miller. Title: Ethnic Older Adults and Comprehending Material Online. Amount requested: \$750,000. Not funded.
- 2000 Organized Research (intramural grant, Northern Arizona University). PI: Michelle Miller. Title: Theories of Age-Related Changes in Short-Term Memory. Funded in the amount of \$11,500.
- 1999 Internal Grants Program (intramural grant, Northern Arizona University). PI: Michelle Miller. Title: Language and Memory Across the Lifespan. Funded in the amount of \$9,530.

## **TEACHING AND RESEARCH EXPERIENCE**

- 1997-1999            Post-doctoral research associate, Rice University  
                         Psychology Department  
                         Research project: Neuropsychology of Language and  
                         Short-Term Memory  
                         Faculty advisor: Randi Martin
- 1997                    Adjunct instructor, UCLA Psychology Department  
                         Class: Psycholinguistics (Psychology 123)
- 1995                    Adjunct instructor, Pomona College Psychology Department  
                         Class: Research Methods (Psychology 159)

## **REVIEWING FOR PROFESSIONAL JOURNALS**

*College Teaching (Consulting Editor)*  
*Journal of Online Learning and Teaching*  
*Child Neuropsychology*  
*Journal of Experimental Psychology: Human Perception and Performance*  
*Journal of Experimental Psychology: Learning, Memory and Cognition*  
*Applied Psycholinguistics*  
*Language Learning*

## **PROFESSIONAL ORGANIZATIONS**

American Psychological Association  
Rocky Mountain Psychological Association  
American Psychological Society  
Psychonomic Society (Associate Member)  
Professional and Organizational Development (POD) Network in Higher Education  
American Association of University Women