MICHELLE DENISE MILLER
CURRICULUM VITAE

Northern Arizona University
Flagstaff, AZ 86011-5106
(928) 523-9560
michelle.miller@nau.edu

PRESENT POSITION	**Professor, Department of Psychological Sciences** **Northern Arizona University**

EDITORIAL ROLES

Series Co-editor, Teaching and Learning in Higher Education
West Virginia University Press

Executive Editor, *College Teaching*

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	Online Learning Consortium Effective Practice Award
2011-present	President's Distinguished Teaching Fellow, NAU
2007-2019	Redesign Scholar, National Center for Academic Transformation
1995	National Research Service Award Predoctoral Training Fellowship
1991-1994	National Science Foundation Graduate Fellowship

BOOKS

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

Miller, M.D. *Remembering and Forgetting in the Age of Technology: Teaching, Learning, and the Science of Memory in a Wired World.* Forthcoming, April 2022. West Virginia University Press.

PEER-REVIEWED PUBLICATIONS

Miller, M.D., Castillo, G., Medoff, N., & Hardy, A. (2021). Immersive VR for organic chemistry: Impacts on performance and grades for first-generation and continuing-generation university students. In press, *Innovative Higher Education.*

Seymour, C.I., Erdynast, E., & Miller, M.D. (2020) Gender predicts beliefs and knowledge about attention among college students. *College Teaching*, DOI: 10.1080/87567555.2020.1853026

Miller, M.D., Doherty, J.J., Butler, N., & Coull, W. (2020). Changing counterproductive beliefs about attention, memory, and multitasking: Impacts of a brief, fully online module. *Applied Cognitive Psychology, 34*, 710-723.

Miller, M.D., Koch, R., & Dickson, K.L. (2019). Empowering faculty to support academic persistence through a blended, scholarship-based faculty professional development program: The Persistence Scholars Program. *Journal of the Scholarship of Teaching and Learning, 19.*

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.

PUBLICATIONS FOR HIGHER EDUCATION PROFESSIONALS

Miller, M.D. (2021, March 17). A year of remote teaching: The good, the bad, and the next steps. *The Chronicle of Higher Education.*

Miller, M.D. (2020, May 6). 5 takeaways from my Covid-19 remote teaching. *The Chronicle of Higher Education.*

Miller, M.D. (2020, March 9). Going online in a hurry: What to do and where to start. *The Chronicle of Higher Education.*

Betts, K., Miller, M., Tokuhama-Espinosa, T., Shewokis, P., Anderson, A., Borja, C., Galoyan, T., Delaney, B., Eigenauer, J., & Dekker, S. (2019). *Neuromyths and evidence-based practices in higher education: International report*. Online Learning Consortium: Newburyport, MA. OLC.

Miller, M.D. (2019, August 23). How to make smart choices about tech for your course. *The Chronicle of Higher Education.*

Miller, M.D. (2018, February 22). Forget mentors – What we really need are fans. *The Chronicle of Higher Education.*

Miller, M.D., & Doherty, J.J. (2018). Online activities for teaching students about technology, distraction, and learning. In Harnish, R. (Ed.), *The Impact of Technology on How Instructors Teach and How Students Learn*. Society for the Teaching of Psychology E-book.

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 millenials 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.

FACULTY DEVELOPMENT RESOURCES

Bringing theory to practice through the neuro, cognitive and learning sciences. Online faculty development workshop created and facilitated with Dr. Kristen Betts for the Online Learning Consortium.

Neuro, cognitive, and learning sciences, Part II: Applying theory to practice. Online faculty development workshop created and facilitated with Dr. Kristen Betts for the Online Learning Consortium.

The Persistence Scholars Program. Blended faculty development course created for Northern Arizona University with Laurie Dickson and facilitated in Fall 2017, Fall 2018, Spring 2019, and Fall 2019.

Teaching in Higher Ed #348: You must remember this. Podcast, February, 2021: https://teachinginhighered.com/podcast/you-must-remember-this/#transcriptcontainer

Future Trends Forum: Learning science and teaching online. Interactive video session, September 2018: https://www.youtube.com/watch?v=nnRBEC4APdA&feature=youtu.be

Tea for Teaching, #121: Persistence scholars. Podcast, February 2020: https://teaforteaching.com/121-persistence-scholars/

Teaching in Higher Ed #291: Learning myths and realities. Podcast, January 2020: https://teachinginhighered.com/podcast/learning-myths-and-realities/

Tea for Teaching #86: Attention matters. Podcast, June 2019: http://teaforteaching.com/86-attention-matters/

Tea for Teaching #65: Retrieval practice. Podcast, January 2019: http://teaforteaching.com/65-retrieval-practice/

Tea for Teaching #37: Evidence is trending. Podcast, July 2018: http://teaforteaching.com/37-evidence-is-trending/

Teaching in Higher Ed #026: Minds Online with Michelle Miller. Podcast, December 2014: https://teachinginhighered.com/podcast/minds-online/

SELECTED PRESENTATIONS AND WORKSHOPS

Using Technology Purposefully and Well: Frameworks for Enhancing Learning (January, 2020). Plenary talk, Temple University 18th Annual Faculty Conference on Teaching Excellence, Philadelphia, PA.

Connecting Teaching to Evidence: Five Gaps and How We Can Bridge Them (November, 2019). Opening keynote, POD Network Annual Conference, Pittsburgh, PA.

Miller, M., Castillo, G., & Medoff, N. Influences of Academic And Psychological Factors on the Impact of Immersive Virtual Reality for Education (June, 2019). Roundtable panel presentation at the EdMedia + Innovate Learning conference, Amsterdam.

Thriving Minds: What's Working, What's Not, and What's Next in Teaching with Technology (October, 2018). Opening plenary, Teaching with Technology Conference, St. Louis, MO.

Improving Teaching, Improving Learning: Principles from Research on Human Cognition (May, 2018). Invited talk, 2nd International Forum on Future World, Future Learning, Beijing, China.

Learning at the Intersection of Cognition, Motivation, and Technology (March, 2018). Talk presented at the Malta Review of Educational Research, University of Malta.

Design for the Mind: Strategies from the Psychology of Learning (January, 2018). Keynote presentation, Sunshine State Teaching Conference, St. Petersburg, FL.

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

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

Getting Into the Minds of Learners to Promote Rich Learning (October, 2016). Keynote presentation, E-Volution Conference, University of Wyoming.

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.

LEADERSHIP EXPERIENCE

2009-2010	Director, NAU Course Redesign Initiatives
2011-2015	Co-Director and Co-Creator, NAU First Year Learning Initiative
2015-2019	Director, NAU First Year Learning Initiative
2017-2019	Lead Facilitator and Co-Creator, Persistence Scholars Faculty Professional Development Program

SELECTED SERVICE ACTIVITIES (2007-Present)

Chair, Online Program Committee, NAU Department of Psychological Sciences (2020-2021)

Director, NAU First Year Learning Initiative (2015-2019)

Co-Director and Co-Creator, NAU First Year Learning Initiative (2011-2015)

Facilitator and Co-Creator, Persistence Scholars Faculty Professional Development Program (Fall 2017-Fall 2019)

Chair, Grade Book Project Committee (reporting to retention consultant Teresa Farnum; Fall 2017)

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

Faculty mentor (NAU, Fall 2014-Fall 2016)

Member, Department of Psychological Sciences Faculty Status and Annual Review Committees (2016-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 and Co-Creator, 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

2021	National Science Foundation, Research on Emerging Technologies for Teaching and Learning (RETTL) Grants Program. Co-PIs: Rebecca Campbell, Giovanni Castillo, and Michelle Miller. Using Virtual Reality to Teach Chemistry: Developing Tools and Approaches for Supporting Diverse STEM Learners. $551,126. Not funded.
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.

PRIOR RESEARCH AND TEACHING POSITIONS

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)

PROFESSIONAL ORGANIZATIONS

American Psychological Association
Rocky Mountain Psychological Association
American Psychological Society
American Association of University Women