

CURRICULUM VITAE

Notarization. I have read the following and certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature:



Date: 4/1/15

Donald Joseph Bolger

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1. PERSONAL INFORMATION

A. Education

Doctor of Philosophy (Ph.D.), 2007
Cognitive Psychology, Advisors: Charles Perfetti & Walter Schneider
University of Pittsburgh, Learning Research & Development Center, Pittsburgh, PA

Bachelor of Arts (B.A.), 1998
Psychology, Education, Minor: Philosophy
University of Massachusetts Amherst, Amherst, MA

B. Professional Experience

2015-present Assistant Research Professor, University of Maryland, College Park, MD
Language Science Center

2008-present Assistant Professor, University of Maryland, College Park, MD,
Department of Human Development & Quantitative Methodology

2006-2008 Research Associate, Northwestern University, Department of Communication
Sciences & Disorder; Developmental Cognitive Neuroscience Laboratory with
James Booth, Ph.D.

1999-2005 Teaching Assistant, University of Pittsburgh, Pittsburgh, PA, Department of
Psychology

1998-2006 Graduate Research Assistant, University of Pittsburgh, Pittsburgh, PA, Learning
Research & Development Center with Charles Perfetti, Ph.D. and Walter
Schneider, Ph.D.

1996-1998 Research Assistant, Laboratory for the Assessment and Training of Academic
Skills, University of Massachusetts; Intervention for students with learning
disabilities with James M. Royer, Ph.D.

2. RESEARCH, SCHOLARLY, AND CREATIVE ACTIVITIES

Note: The first author is the lead (corresponding) author; however, the senior author(s), who provide intellectual leadership, are indicated at the end of the author list (see Author Note at end of document). †Graduate, ‡undergraduate, and *post-doctoral mentees are noted.

A. Books

i. Chapters in Books

All chapters were invited and refereed.

1. †Atkins, S. M., Bunting, M. F., **Bolger, D. J.**, & Dougherty, M. R. (2012). Training the adolescent brain: Neural plasticity and the acquisition of cognitive abilities. In V. F. Reyna, S. B. Chapman, M. R. Dougherty & J. Confrey (Eds.), *The adolescent brain: Learning, reasoning, and decision making*. (pp. 211-241). Washington, DC US: American Psychological Association.

Contribution: 25% conceptualization, 25% writing

2. Yoon, H. Y., **Bolger, D. J.**, Kwan, O. S., & Perfetti, C. A. (2003). Subsyllabic Units in Reading: A Difference between Korean and English. In L. Verhoeven, C. Elbro, & P. Reitsma (Eds.), *Precursors of Functional Literacy*. Nijmegen, Netherlands: John Benjamins.

Contribution: 50% conceptualization, 75% analysis, 50% writing

B. Articles in Refereed Journals

1. **Bolger, D. J.** & †Jackson, A. F. (accepted). Acquiring Word Meaning from Contextual versus Definition Experiences. *Language Learning*.

Contribution: 80% conceptualization, 10% analysis, 60% writing

2. **Bolger, D. J.**, Mackey, A. P., Wang, M., & Grigorenko, E. L. (2014). The role and sources of individual differences in critical thinking: a capsule overview. *Educational Psychology Review*, 26 (4), 495-518.

(Invited & Peer Reviewed)

Contribution: 40% conceptualization, 30% writing

3. †Jackson, A. F., & **Bolger, D. J.** (2014). The neurophysiological bases of EEG and EEG measurement: A review for the rest of us. *Psychophysiology*, 51 (11), 1061-1071.

Contribution: 50% conceptualization, 50% writing

4. McClelland, J. L., Mirman, D., **Bolger, D. J.**, & Khaitan, P. (2014). Interactive activation and mutual constraint satisfaction in perception and cognition. *Cognitive Science*, 38(6), 1139-1189.

Contribution: 33% conceptualization, 33% writing

5. †Atkins, S. M., *Sprenger, A. M., †Briner, T. L., †Buchanan, J. B., †Chavis, S. E., †Chen, S-Y, †Iannuzzi, G. L., †Kashtelyan, V., †Dowling, E., **Bolger, D. J.**, Bunting, M. F., & Dougherty, M. R. (2014). Measuring working memory is all fun and games: A four-dimensional spatial game predicts cognitive task performance. *Experimental Psychology*, 61(6), 2014, 417-438. <http://dx.doi.org/10.1027/1618-3169/a000262>

Contribution: 25% conceptualization, 0% analysis, 25% writing

6. †Jackson, A. F., & **Bolger, D. J.** (2014). Using a high-dimensional graph of semantic space to model relationships among words. *Frontiers in Psychology: Language Science*, 5, E385. doi.org/10.3389/fpsyg.2014.00385
Contribution: 50% conceptualization, 25% analysis, 50% writing
7. *Sprenger, A. M., †Atkins, S. M., **Bolger, D. J.**, Harbison, J. I., Novick, J. M., Weems, S. A., Chrabaszcz, J. S., Smith, V., Bobb, S., Bunting, M. F., & Dougherty, M. R. (2013). Training working memory: Limits of transfer. *Intelligence*, 41, 638-663. doi.org/10.1016/j.intell.2013.07.013
Contribution: 50% conceptualization, 25% analysis, 33% writing
8. Burman, D. D., †Minas, T., **Bolger, D. J.**, & Booth, J. R. (2013). Age, sex, and verbal abilities affect location of linguistic connectivity in ventral visual pathway. *Brain and language*, 124, 184-193.
Contribution: 33% conceptualization, 0% analysis, 33% writing
9. Liu, L., Vira, A., Friedman, E. B., Minas, J., **Bolger, D. J.**, Bitan, T. & Booth, J. R. (2011). Children with reading disability show brain differences in effective connectivity for visual, but not auditory word comprehension. *PLoS ONE* 5, e13492.
Contribution: 25% conceptualization, 25% analysis, 25% writing
10. Cao, F., Khalid, K., Lee, R., Brennan, C., Yanhui, Y., Li, K., **Bolger, D. J.**, & Booth, J. R. (2011). Development of brain networks involved in spoken word processing of Mandarin Chinese. *Neuroimage*, 57, 750-759.
Contribution: 25% conceptualization, 25% analysis, 25% writing
11. Desroches, A. S., Cone, N. E., **Bolger, D. J.**, Bitan, T., Burman, D. D., & Booth, J. R. (2010). Children with reading difficulties show differences in brain regions associated with orthographic processing during spoken language processing. *Brain Research*, 1356, 73-84.
Contribution: 25% conceptualization, 25% analysis, 25% writing
12. Cao, F., Khalid, K., Zaveri, R., **Bolger, D. J.**, Bitan, T. & Booth, J. R. (2010). Neural correlates of priming effects in children during spoken word processing with orthographic demands. *Brain and Language*, 114, 80-89.
Contribution: 50% conceptualization, 50% analysis, 33% writing
13. Liu, L., Deng, X., Peng, D., Cao, F., Ding, G., Jin, Z., Zeng, Y., Li, K., Zhu., L., Fan, N., Deng, Y., **Bolger, D. J.**, & Booth, J. R. (2009). Modality- and task-specific brain regions involved in Chinese lexical processing. *Journal of Cognitive Neuroscience*, 21, 1473-1487.
Contribution: 10% conceptualization, 0% analysis, 25% writing
14. **Bolger, D. J.**, Minas, J. E., Burman, D. D., & Booth, J. R. (2008). Orthographic and phonological consistency effects in cortex of children with and without reading disorders. *Neuropsychologia*, 46, 3210-3224.
Contribution: 90% conceptualization, 100% analysis, 75% writing
15. **Bolger, D. J.**, Hornickel, J., Cone, N. E., Burman, D. D., & Booth, J. R. (2008). Neural correlates of orthographic and phonological consistency effects in children. *Human Brain Mapping*, 29, 1416-1429.

Contribution: 90% conceptualization, 90% analysis, 75% writing

16. Cone, N. E., Burman, D. D., Bitan, T., **Bolger, D. J.**, & Booth, J. R. (2008). Developmental changes in brain regions involved in phonological and orthographic processing during spoken language processing. *NeuroImage*, *41*, 623-635.

Contribution: 50% conceptualization, 25% analysis, 33% writing

17. **Bolger, D. J.**, Balass, M., Landen, E., & Perfetti, C. A. (2008). Contextual variation and definitions in learning the meanings of words. *Discourse Processes*, *45*, 122-159.

Contribution: 100% conceptualization, 90% analysis, 90% writing

18. Perfetti, C. A., Liu, Y., Fiez, J., Nelson, J., **Bolger, D. J.**, & Tan, L-H. (2007). Reading in two writing systems: Accommodation and assimilation of the brain's reading network. *Bilingualism: Language and Cognition*, *10*, 131-146.

Contribution: 25% conceptualization, 25% writing

19. Landi, N., Perfetti, C. A., **Bolger, D. J.**, Dunlap, S., & Foorman, B. R. (2006). The role of discourse context in developing word form representations: A paradoxical relationship between reading and learning. *Journal of Experimental Child Psychology*, *94*, 114-133.

Contribution: 33% conceptualization, 0% analysis, 25% writing

20. Schneider, W., **Bolger, D. J.**, Eschman, A., Neff, C., & Zuccolotto, A. P. (2005). Psychology Experiment Authoring Kit (PEAK) - Formal Usability Testing of an Easy-to-Use Method for Creating Computerized Experiments. *Behavior Research Methods, Instruments, & Computers*, *37*, 312-323.

Contribution: 50% conceptualization, 50% analysis, 50% writing

21. **Bolger, D. J.**, Schneider, W., & Perfetti, C. A. (2005). Cross-cultural effect on the Brain Revisited: Universal structures plus writing system variation. *Human Brain Mapping*, *25*, 92-104.

Contribution: 100% conceptualization, 100% analysis, 75% writing

22. Perfetti, C. A., & Bolger, D.J. (2004). The brain might read that way. *Scientific Studies in Reading*, *8*, 293-304.

Contribution: 50% conceptualization, 50% analysis, 50% writing

C. Technical Reports (Refereed)

1. *Colflesh, G. J. H., **Bolger, D. J.**, O'Rourke, P., Linck, J. A., Eden, M., Jansen, D., Dougherty, M. R., & Bunting, M. F. (2013). Evaluation of a working memory training regimen in Iraqi Arabic with university and community participants (TTO 2009: Technical Report, pp. 1-24). College Park: University of Maryland Center for Advanced Study of Language.

Contribution: 100% conceptualization, 50% analysis, 50% writing

2. *Colflesh, G. J. H., **Bolger, D. J.**, Linck, J. A., O'Rourke, P., Eden, M., Jansen, D., Dougherty, M. R., & Bunting, M. F. (2013). Evaluation of the impact of working memory training in Iraqi Arabic. (TTO 2009: Technical Report, pp. 1-25). College Park: University of Maryland Center for Advanced Study of Language.

Contribution: 100% conceptualization, 50% analysis, 50% writing

3. †Atkins, S. M., **Bolger, D. J.**, Dougherty, M. R., & Bunting, M. F. (2012). Changes in the Cognitive Control and Default Mode Networks following Working Memory Training. (TTO 3501: Technical Report, pp. 1-27). College Park: University of Maryland Center for Advanced Study of Language.

Contribution: 60% conceptualization, 50% analysis, 75% writing

D. Patents/Disclosures Filed

1. *iOS Application to train working memory in foreign languages*. Disclosure No. IS-2014-061 (**Bolger, D. J.**, *Colflesh, G. J. H., Linck, J. A., O'Rourke, P. L., Eden, M., Collins, D., Zuccolotto, A., Dougherty, M. R., & Bunting, M. F.)

E. Talks, Abstract, and other Professional Papers Presented

i. INVITED TALKS

1. **Bolger, D. J.** (January, 2014). *Neuroscience of Learning & Development: Can brain science inform education?* Developmental Science Graduate Field Committee Workshop: Cognitive and Linguistic Development: Translations of Research for Educational Applications, University of Maryland, College Park, MD.
2. **Bolger, D. J.** (June, 2013). *The Brain Might Read that Way*. Maryland Neuroimaging Center Summer Institute for Developmental Cognitive Neuroscience, University of Maryland, College Park, MD.
3. **Bolger, D. J.** (September, 2012). *The Brain Might Read that Way*. Colloquia, Visual Language Learning (VL2 Center), Gallaudet University, Washington, D.C.
4. †Atkins, S. M., & **Bolger, D. J.** (August, 2011). *Neural plasticity following visual spatial working memory training*. Invited Talk at the International Workshop on Working Memory Training, sponsored by the Center for Advanced Study of Language, University of Maryland, College Park, MD.
5. **Bolger, D. J.** (April, 2011). *The Brain Might Read that Way*. Colloquia, Department of Psychology, St. Mary's College of Maryland.
6. **Bolger, D. J.** (April, 2011). *The Brain Might Read that Way*. Colloquia, Training Program in Interdisciplinary Educational Studies, Penn State University.
7. **Bolger, D. J.** (March, 2011). *The Development of Reading in the Brain*. Invited lecture for the Applied Developmental Psychology Colloquia series, George Mason University.
8. **Bolger, D. J.** (January, 2009). *The Brain Might Read that Way*. Invited lecture for the grand rounds of the fMRI Research Group, National Institutes of Health (NIH), Bethesda, MD.
9. Bolger D. J. (November, 2009). *Integration of Orthography and Phonology in Cortex*. Invited talk at the Computational and Cognitive Neuroscience Conference, Boston, IL.
10. **Bolger, D. J.** (April, 2009). AERA Professional Development Series: "How to Get Published: Guidance from Emerging and Senior Scholars.
11. **Bolger, D. J.** (February, 2008). *The Brain Might Read that Way*. Invited colloquia, Department of Psychology, Michigan State University.

12. **Bolger, D. J.** (May, 2007). *Development of orthographic knowledge in the brain*. Invited lecture for the Experimental Psychology Colloquia series, Department of Psychology, Depaul University.
13. **Bolger, D. J.** (July, 2006). *Development of orthographic knowledge in the brain*. Presentation for the Center for the Study of Learning (CSL), Georgetown University.
14. **Bolger, D. J.** (April, 2004). *Development of orthographic knowledge in the brain*. Invited lecture for the Brain Research Imaging Center (BRIC), University of Chicago.

ii. REFEREED INTERNATIONAL CONFERENCE PROCEEDINGS

1. †Sand, L. A., †Tsai, P., †Jackson, A. F., & **Bolger, D. J.** (2012). Repetition, Semantic, and Phonological Masked Priming: An MEG Study. Poster presented at the 4th Annual Neurobiology of Language Conference, San Sebastian, Spain.
2. †Atkins, S. M., Bunting, M. F. & Dougherty, M. R., & **Bolger, D. J.** (2012). Training-related plasticity in brain activity following visual spatial working memory training. Poster presented at Organization for Human Brain Mapping, Beijing, China.
3. Bolger D. J., & †Kim, S-Y. (2010). The effect of sub-syllabic units in the orthographic processing of Korean. Poster presented at the 17th Annual Meeting of the Society for the Scientific Study of Reading, Berlin, Germany.
4. Minas J., Desroaches, A., McNorgan, C., **Bolger, D. J.**, & Booth, J. R. (2010). Developmental divergence in brain networks for phonological processing of words and nonwords. Poster presented at the 15th annual meeting of the Organization for Human Brain Mapping, Barcelona, Spain.
5. Balass, M., **Bolger, D. J.**, & Perfetti, C. A. (2007). Definition availability and context effects in vocabulary learning. Poster presented at the 14th Annual Meeting of the Society for the Scientific Study of Reading, Prague, Czechoslovakia.
6. Balass, M., **Bolger, D. J.**, & Perfetti, C.A. (2006). The role of definition and sentence context in vocabulary learning. Poster presented at the 13th Annual Meeting of the Society for the Scientific Study of Reading, Toronto, Vancouver, B.C., CA.
7. **Bolger, D. J.**, Schneider, W., & Perfetti, C. A. (2005). The development of orthographic knowledge: A cognitive neuroscience investigation of reading. Paper presented at the 12th Annual Meeting of the Society for the Scientific Study of Reading, Toronto, Ontario CA.
8. **Bolger, D. J.**, Royer, J. M., & Wiley, J. (June, 1999). The study of expert performance in domain specific knowledge concerning text reading ability. Poster presented at the 80th annual meeting of the American Educational Research Association, Montreal.
9. Yoon, H. Y, Perfetti, C. A., & **Bolger, D. J.** (June, 1999). A cross-linguistic study on the perception of syllables in native Korean and English speakers. Poster presented at the annual meeting for the Society for the Scientific Study of Reading, Montreal.

iii. REFEREED NATIONAL CONFERENCE PROCEEDINGS

1. †Kayes, M. K., Venezia, A. C., Sprenger, A. M., Roth, S. M., Dougherty, M. R., **Bolger, D. J.**, & Hatfield, B. D. (2014, May). Variability in learning in adults explained by cardiovascular fitness, physical activity, and APOE genotype. *Medicine and Science in Sports and Exercise* (Vol. 46, No. 5, pp. 125-126).
2. †Jackson, A. F., & **Bolger, D. J.** (April, 2014). Event-related potentials in response to similar and related words. Poster presented at 21st Annual Cognitive Neuroscience Society

Conference, Boston, MA.

3. †Feola, B., †Atkins, S. M., Bunting, M., Dougherty, M. R., & **Bolger, D. J.** (April 2014). Behavioral predictors of the neural incongruity effects in the Simon task. Poster presented at the Cognitive Neuroscience Society: Boston, MA.
4. †Sand, L. A., Redcay, E., & Bolger, D.J. (2013) Interaction of emotional and language networks during verbal emotional inference. Poster presented at Association for Psychological Science. Washington, DC, USA.
5. †Atkins, S. M., †Levitas, D., †Feola, B., Bunting, M. F., Dougherty, M. R., & **Bolger, D. J.** (2013). Differential components of the Simon task predicted by the attentional networks task. Poster presented at Association for Psychological Science. Washington, DC, USA.
6. †Atkins, S. M., Bunting, M. F., & Dougherty, M. R., & **Bolger, D. J.** (2013). Training-related plasticity in brain activity following visual spatial working memory training. Poster presented at the 17th Annual Meeting of the Society for Cognitive Neuroscience, San Francisco, CA.
7. †Atkins, S. M., Bunting, M. F., Dougherty, M. R., & **Bolger, D. J.** (2012). Efficiency following visual-spatial working memory training: Increases in default mode and decreases in fronto-parietal activation. Poster presented at Cognitive Neuroscience Society, Chicago, USA.
8. †Atkins, S. M., **Bolger, D. J.**, Bunting, M. F., & Dougherty, M. R. (May, 2011). Greater efficiency in the inferior parietal lobe following visual-spatial working memory training. Poster presented at Association for Psychological Science. Washington, DC, USA.
9. †Jackson, A. F., & **Bolger, D. J.** (2011). Word learning from context: Accuracy, reaction time, and the p600. Poster, 3rd Annual Meeting Society for the Neurobiology of Language, Annapolis, MD.
10. †Lin, K., & **Bolger, D. J.** (2011). Use of masked priming paradigms in fMRI to study word identification processes. Poster presented at the 18th Annual Meeting of the Society for the Scientific Study of Reading, St. Pete, FL
11. †Jackson, A. F., & **Bolger, D. J.** (2011). Neurophysiological markers of word learning from context. Paper presented at the 18th Annual Meeting of the Society for the Scientific Study of Reading, St. Pete, FL
12. †Kim, S-Y., & **Bolger, D. J.** (2010). The role of sub-syllabic units in visual word processing of Korean monosyllabic words: A masked priming study. Poster presented at the 51st Annual Meeting of the Psychonomic Society, St. Louis, MO.
13. Bolger D. J., †Gray, J., Burman D. D., & Booth, J. R. (June, 2009). Differential effects of phonological and orthographic consistency in cortex for children with and without reading disability. Paper presented at the 16th Annual Meeting of the Society for the Scientific Study of Reading, Boston, MA.
14. Bolger D. J., †Gray, J., Burman, D. D., & Booth, J. R. (November, 2008). Cortical effects of orthographic and phonological consistency in spoken word tasks. Paper presented at the Annual Meeting of the Psychonomic Society, Chicago, IL.
15. **Bolger, D. J.**, Yang, C-L., & Perfetti, C. A. (July, 2008). Learning the meanings of words from contexts and definitions: ERP evidence. Paper presented at the 15th Annual Meeting of the Society for the Scientific Study of Reading, Asheville, North Carolina.
16. **Bolger, D. J.**, Minas, J., Cao, F., Burman, D. D., & Booth, J. R. (July, 2008). Phonological

and orthographic consistency effects in cortex for normal and impaired readers. Paper presented at the Cognitive Science Society, Washington, DC.

17. Cone, N., **Bolger, D. J.**, Na, C., Burman, D. D., & Booth, J. R. (2008). Children with dyslexia show weaker brain activation in orthographic and phonological processing regions during spoken language processing. Poster presented at the 15th Annual Meeting of the Society for Cognitive Neuroscience, San Francisco, CA.
18. Zaveri, R., Cao, F., **Bolger, D. J.**, & Booth, J. R. (2008). Orthographic and phonological cortical priming effects in children during spoken language processing. Poster presented at the 15th Annual Meeting of the Society for Cognitive Neuroscience, San Francisco, CA.
19. Lu, D., Burman, D. D., **Bolger, D. J.**, & Booth, J. R. (2008). Developmental stability and changes in the neural substrate for lexical processing: A longitudinal fMRI study. Poster presented at the 15th Annual Meeting of the Society for Cognitive Neuroscience, San Francisco, CA.
20. **Bolger, D. J.**, Hornickel, J., Burman, D. D. & Booth, J. R. (2007). Orthographic and phonological priming effects in cortex among children. Poster presented at the 13th annual meeting of the Organization for Human Brain Mapping. Chicago, IL.
21. Hornickel, J., **Bolger, D. J.**, Cone, N. E., Burman, D. D., & Booth, J. R. (2007). Neural correlates of orthographic and phonological consistency effects in children. Poster presented at the 13th annual meeting of the Organization for Human Brain Mapping. Chicago, IL.
22. **Bolger, D. J.**, & Schneider, W. (2002). Finding visual word recognition through neural adaptation. Paper presented at the 43rd Annual Meeting of the Psychonomic Society, Kansas City, MO.
23. **Bolger, D. J.**, Van Dyke, J., Landi, N., Perfetti, C. A., & Foorman, B. R. (June, 2002). What errors can tell us about representation and process: Investigating a quantitative theory of reading. Poster presented at the 9th Annual Meeting of the Society for the Scientific Study of Reading, Chicago, IL.
24. **Bolger, D. J.**, Van Dyke, J., Perfetti, C. A., & Foorman, B. R. (June, 2001). Decoding skill and orthographic knowledge, perfect together. Poster presented at the 8th Annual Meeting of the Society for the Scientific Study of Reading.
25. Van Dyke, J., **Bolger, D. J.**, Landi, N., & Perfetti, C. A, & Foorman, B. R. (June, 2001). Contributions of word decodability and text predictability in first grade oral reading and printed word learning. Paper presented at the 8th Annual Meeting of the Society for the Scientific Study of Reading.
26. McCandliss, B. D., **Bolger, D. J.**, & Schneider, W. S. (November, 2000). Habituating visual features versus cognitive codes: an event-related fMRI study of abstract word representations in extrastriate cortex. Poster presentation at the 30th Annual Meeting of the Neuroscience Society. Washington, DC. (Published Abstract)
27. McCandliss, B. D., **Bolger, D. J.**, Sharpe, M., & Schneider, W. S. (April, 2000). Habituating cognitive codes for individual words within 'visual word form' areas: an event-related fMRI study. Poster presented at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.

F. Contracts and Grants

i. ONGOING AND COMPLETED GRANTS/CONTRACTS

1. Shah, Y., **Bolger, D. J.**, & Slevc, R. (2014-2015). Cognitive, Neural and Lifestyle predictors of language training outcomes. Tier 1 Seed Grant from the Office of the Vice President of Research, University of Maryland, \$50,000. Role: Co-Principal Investigator (PI: Y. Shah) Awarded: June 30, 2014
2. **Bolger, D. J.**, & Redcay, E. (2014-2017). Brain mechanisms of affective language comprehension in autism spectrum disorders. Dept. of Defense: Congressionally Directed Medical Research Program, Autism Research Program Idea Development Award. \$515,000. Role: Principal Investigator.
3. **Bolger, D. J.** (2013-2014). Brain mechanisms of affective language comprehension in autism spectrum disorders. Funded by the Support Program for Advancing the Research and Collaboration (SPARC) for Pre-Tenure Faculty, University of Maryland, College of Education, \$16,000. Role: Principal Investigator.
4. Dougherty, M. R., **Bolger, D. J.** Bunting, M. F., Novick, J. M., & Harbison, J. I. (2010-2013). Robust cognition through brain plasticity. Grant funded by the U.S. Department of Defense, Office of Naval Research, \$749,231. Role: Co-Investigator.
5. Linck, J. A, **Bolger, D. J.**, O'Rourke, P. L., J. M., Harbison, J. I., Dougherty, M. R., & Bunting, M. F. (2012-2013): Cognitive and working memory training on mobile platform. (TTO2009). Contract funded by Department of Defense: Defense Language Institute Foreign Language Center to the University of Maryland Center for Advanced Study of Language (CASL), (direct salary, budget classified) \$83,284. Role: Lead-Investigator
6. Bunting, M. F., **Bolger, D. J.**, Novick, J. M., Harbison, J. I., & Dougherty, M.R. (2011-2012) Working memory training for language. (TTO83506). Contract funded by Department of Defense: Defense Language Institute Foreign Language Center to the University of Maryland Center for Advanced Study of Language (CASL), \$47,884 (direct salary, budget classified). Role: Lead-Investigator
7. Bunting, M. F., Novick, J. M., Harbison, J. I., Dougherty, M. R., & Weems, S. A., & (2007-2012) Effects of brain training on cognitive and language skills (TTO3501), Contract funded by Department of Defense to the University of Maryland Center for Advanced Study of Language (CASL), \$2,055,804. Role: Sub-Contractor (2010-2012)
8. **Bolger, D. J.** (2010-2011). Neurophysiological markers of word learning in children. Funded by the Research and Service Award, University of Maryland, Graduate School, \$9,000. Role: Principal Investigator.
9. Fox, N. A, **Bolger, D. J.**, Contreras-Vidal, J., Dooling, R. J., Lejuez, C. W., Phillips, C., & Dougherty, M. R. (2009-2010). Acquisition of a 3-Tesla Magnetic Resonance Imaging Scanner at Maryland \$1,938,000, \$2.5 million. Funded by the National Science Foundation Major Research Instrumentation Award (BCS0988985) Role: Co-Investigator.

G. Fellowships, Prizes, and Awards

2006 Ruth Kirchstein National Research Service Award (NRSA) NIH, Northwestern

University

- 2010 Research and Service Award, University of Maryland Graduate School
- 2010 Nominee: Graduate Faculty Mentor of the Year Award, University of Maryland Graduate School
- 2014 Award for Excellence in Scholarship, University of Maryland College of Education

H. Editorships, Editorial Boards, and Reviewing Activities**i. AD-HOC REVIEWS**

- 2011 *BioMedCentral: Neuroscience (2009-1)*
- 2004-2010 *Brain & Language (2004-1; 2005-2; 2009-5; 2010-2)*
- 2008 *Cerebral Cortex (2008-1)*
- 2014 *Child Development*
- 2012 *Cognitive Science (2012-1)*
- 2011-2013 *Contemporary Educational Psychology (2011-1; 2013-1)*
- 2014 *Developmental Science*
- 2007-2009 *Discourse Processes (2007-1; 2009-1)*
- 2009 *Educational Psychologist (2009-2)*
- 2005-2010 *Human Brain Mapping (2005-3; 2006-1; 2008-2; 2009-2; 2010-2)*
- 2011 *Journal of Speech, Language, and Hearing Research (2011-2)*
- 2008-2009 *Journal of Autism & Developmental Disabilities (2008-2; 2009-1)*
- 2010 *Journal of Cognitive Neuroscience (2010-1)*
- 2009-2011 *Journal of Educational Psychology (2009-1; 2010-1; 2011-1)*
- 2010 *Journal of Neurolinguistics (2010)*
- 2013 *Journal of Neuroscience (2013-2)*
- 2009 *Language Learning (2009-1)*
- 2008-2011 *Neuropsychologia (2008-4; 2009-3; 2011-1)*
- 2011 *Neuroimage (2011-1)*
- 2009 *Psychological Bulletin & Review (2009-1)*
- 2010 *Science (2010-1)*

I. Press and Media Coverage

Overcoming Learning Disabilities (Winter, 2011) Terp Magazine (Monnette A. Bailey)

Brain Training: UMD Research in working memory improves government linguists' performance (Winter, 2012) Terp Magazine (Tom Ventsias)

3. TEACHING, MENTORING, AND ADVISING**A. Courses Taught**

University of Maryland: Department of Human Development & Quantitative Methodology

(EDHD) and Program in Neuroscience and Cognitive Science (NACS)

EDHD 314: Reading Acquisition in Early Childhood *Undergraduate Program for Early Childhood Certification

Spring 2014: 27 students

Spring 2015: 23 students

EDHD 315: Reading Acquisition in Early Childhood: Instruction & Materials II

*Undergraduate Program for Early Childhood Certification

Fall 2014: 27 students

EDHD 420: Cognitive Development & Learning

Spring 2014: 40 students

EDHD 425: Language Acquisition & Reading Development

Fall 2008: 27 students

Spring 2009: 22 students

Fall 2009: 27 students

Spring 2010: 29 students

Fall 2010: 30 students

Spring 2015: 40 students

PSYCH 479: Special Research Problems in Psychology

Fall 2010: 1 student

Spring 2012: 1 student

EDHD 489 & 498: Field Experience in Human Development

2009-2010: 2 students

2010-2011: 3 students

2011-2012: 2 students

2012-2013: 2 students

2013-2014: 4 students

NACS 642: Cognitive & Computational Neuroscience

Spring 2010: 9 students

Spring 2011: 16 students

Spring 2012: 12 students

EDHD 692: Cognitive Approaches to Instruction *Off-campus Masters program for teachers from Montgomery County Public Schools

Fall 2011: 11 students

Fall 2012: 12 students

Fall 2013: 11 students

Fall 2014: 14 students

EDHD 721: Cognitive Development & Learning: An Introduction

Fall 2010: 14 students

Fall 2011: 9 students

NACS 728A: Special Topics in Neuroscience & Cognitive Science: ABC's of Prefrontal

Cortex (Co-taught with Dr. Jonathan Fritz [ENG])

Fall 2009: 14 students

EDHD 775: Human Development & Neuroscience

Fall 2013: 10 students

EDHD 779i: Human Development, Principles of Cognitive Neuroscience & Applications to Education

Fall 2008: 4 students

EDHD 798: Special Problems in Human Development

Fall 2009: 1 student

EDHD 888 & 889: Apprenticeship in Human Development

2009-2010: 1 student

2010-2011: 2 students

2011-2012: 1 student

2012-2013: 2 students

2013-2014: 1 student

NACS 898 & 899: Pre-candidacy Research

2010-2011: 2 students

2011-2012: 2 students

2012-2013: 1 student

2013-2014: 1 student

EDHD 898 & 899: Pre-Candidacy Research

2012-2013: 1 student

2013-2014: 1 student

B. Course or Curriculum Development

NACS 642 (2010-2012) Redesigned Cognitive & Computational Neuroscience

This course had been taught for many years by the same faculty member in Linguistics. I redesigned the course several times adding a hands-on group experiment first using MEG and then switching to MRI with the opening of the Maryland Neuroimaging Center.

EDHD 692 (2011-2013) Redesigned Cognitive Approaches to Instruction

This course is for Montgomery County teachers and was taught by a faculty member who retired. I redesigned the course to capture both applied cognition, but also added a dose of educational neuroscience.

EDHD 775 (2006-2007) Redesigned Human Development and Neuroscience

I redesigned this course to provide students with more direct instruction of the fundamentals of developmental neuroscience as well as having student led discussions of papers on related topics.

EDHD 798 (2008) Created Special Problems in Human Development, Introduction to Cognitive Neuroscience & Applications to Education

This was the first real course on Educational Neuroscience taught at the University of Maryland. Previous courses focused more generally on child development. This course

focused on the neuroscience of reading, math, reasoning, language, etc.

NACS 728A (2009) Co-created Special Topics in Neuroscience & Cognitive Science: ABC's of Prefrontal Cortex

Dr. Fritz and I discussed a wide variety of topics in terms of what the role of prefrontal cortex is with respect to behavior. We brought in guest lecturers from NIH, Georgetown, Johns Hopkins, and elsewhere to provide doctoral students with firsthand experience.

C. Advising (Non-Research)

i. DOCTORAL QUALIFYING EXAM/PORTFOLIO COMMITTEES

Wei Gao (Advisor: Wang, EDHD) 2009
 In Yeong Ko (Advisor: Wang, EDHD) 2009
 Soo Eun Chae (Advisor: Alexander, EDHD) 2010
 Lauren White (Advisor: Fox, EDHD) 2010
 Candise Chen (Advisor: Wang, EDHD) 2011
 Ross Vanderwert (Advisor: Fox, EDHD) 2011
 Sandra Loughlin (Advisor: Alexander, EDHD) 2011
 Say Young Kim (Advisor: Wang, EDHD) 2011
 Kristen Lin (Advisor: Bolger, NACS) 2011
 Alice Jackson (Advisor: Bolger, NACS) 2011
 Jeffrey Chrabaszcz (Advisory: Dougherty, NACS) 2011
 Shikha Prashad (Advisor: Clark, NACS/KNES) 2011
 Maureen Kayes (Advisor: Hatfield, KNES) 2011
 Lesley Sand (Advisor: Bolger, EDHD) 2012
 Daniel Bryden (Advisor: Roesch, NACS) 2012
 Tao Jiang (Advisor: Carr, NACS) 2012
 Vanessa Williams (Advisor: Riggins, NACS) 2012
 Kathryn Yoo (Advisor: Fox, NACS) 2013
 Chuchu Li (Advisor: Wang, EDHD) 2013
 Tyson Barker (Advisor: Fox, EDHD) 2014
 Peter Baggetta (Advisor: Alexander, EDHD) 2014
 Sarah Blankenship (Advisor: Dougherty, NACS) 2014
 Ying Ying Tan (Advisor: Hatfield, NACS) 2015

D. Advising (Research)

i. DOCTORAL ADVISING

2008-2012 Say Young Kim (co-advisor, EDHD, completed)
 Post-doctoral Fellow: Nanyang Technological University, Singapore

2008-2012 Kristen Lin (NACS, left program for family reasons)

2010-2012 Sharona Atkins (co-advisor, NACS, completed)
 Consultant, Center for Advanced Study of Language

2009-2014 Alice Jackson (NACS, completed)
 Postdoctoral Fellow, Applied Physics Laboratories, Johns Hopkins University

2011-2014 Susan Teubner-Rhodes (co-advisor, NACS, completed)
Post-doctoral Fellow: Medical University of South Carolina.

2009-present Lesley Sand (EDHD) *Entered Doctoral Program in Educational Psychology Fall 2009. Received Graduate Dean's Fellowship 2013-2014.*

2010-present Peter Bagetta (co-advisor, EDHD) *Entered Doctoral Program in Educational Psychology Fall 2010. Received Fellowship 2010-2014.*

2012-present Brandee Feola (EDHD) *Entered Doctoral Program in Developmental Science Fall 2012. Received Fellowship 2012-2016. Awarded NIH T-32 Predoctoral fellowship for 2014-2015.*

2014-present Doireanne Hobbs (EDHD) *Entered Doctoral Program in Developmental Science Fall 2013. Received Fellowship 2013-2017.*

ii. POST-DOCTORAL ADVISING

2012-2013 Sharona Atkins, Consultant, Center for Advanced Study of Language (CASL)

2012-2013 Gregory Colflesh, Research Associate, Center for Advanced Study of Language (CASL)

2011-2012 Amber Sprenger, MITRE Corp.

iii. UNDERGRADUATE THESIS COMMITTEES

2013-2014 University of Maryland Department of Biology Honors Program
Thesis/Project Lindsey Chun (BIOL)

2011 Gemstone Project: *COGNITIVE TRAINING: THE EFFECTS OF WORKING MEMORY TRAINING*. Timothy Levi Briner, Jacob Brown Buchanan, Sydnee Erin Chavis, Sy-yu Chen, Gregory Louis Iannuzzi, & Vadim Kashtelyan (Faculty Advisor: Michael Dougherty)

2007-2008 Northwestern University Honors Program Thesis/Project
Eugene Park and Jayla Gray (Communication Sciences & Disorders)

iv. MASTERS THESIS COMMITTEES

2014 Samantha Hudgins (Nutrition & Food Sciences, Advisor: Castonguay)

2013 Vanessa Williams (Psych, Advisor: Riggins)

2010 Michael Kirwin (EDHD, Advisor: Fox)

v. DISSERTATION THESIS COMMITTEES

**-indicates co-advisor on dissertation thesis; **-indicates primary advisor*

Diogo Almeida (Linguistics, Advisor: Poeppel) – Defended April 2009

In Yeong Ko (EDHD, Advisor: Wang) – Defended March 2011

*Sharona Atkins (NACS, Advisor: Dougherty) – Defended October 2011

Soo Eun Yoon (EDHD, Advisor: Alexander) – Defended October 2011

Sarah Helfenstein (NACS, Advisor: Fox) – Defended December 2011
Melissa Pangelinan (Kinesiology/NACS, Advisor: Clark) – Defended January 2012
*Say Young Kim (EDHD, Advisor: Wang) – Defended October 2012
Ross Vanderwart (EDHD, Advisor: Fox) – Defended October 2012
Sandra Loughlin (EDHD, Advisor: Alexander) – Defended June, 2013
Maureen Kayes (Kinesiology: Advisor: Hatfield) – Defended August, 2013
**Alice Jackson (NACS, Advisor: Bolger) – Defended January, 2014
Jenna Suway (EDHD, Advisor: Fox) – Defended April 2014
*Susan Teubner-Rhodes (NACS, Advisor: Dougherty) – Defended April, 2014
Catherine Eaton (Hearing & Speech Sciences, Advisor: Ratner) – Defended April, 2014
ChuChu Li (EDHD, Advisor: Wang) – TBA
Jessica Oldham (Kinesiology/NACS, Advisor: Hatfield) – TBA
**Lesley Sand (EDHD, Advisor: Bolger) – TBA
Jong Moon Choi (NACS, Advisor: Pessoa) – TBA
Shikha Prashad (Kinesiology/NACS, Advisor: Clark) – TBA

vi. OTHER MENTORSHIP

Nikhil Tangirala (Poolesville High School) – Senior Science Thesis April 1, 2013

4. SERVICE

A. Professional

i. MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

American Psychological Association (APA)

Psychonomic Society

American Educational Research Association (AERA)

Cognitive Neuroscience Society (CNS)

Society for Human Brain Mapping (HBM)

Society for the Scientific Study of Reading (SSSR)

ii. REVIEWING ACTIVITIES

AERA 2012 panel reviewer for Special Section on Brain-based Education

Society for the Neurobiology of Language 2013 panel reviewer for reading.

Society for the Neurobiology of Language 2013 panel reviewer for submissions on literacy and language development.

2009 External Reviewer for the Peer Review Panel for the Universidad di Padova University of Padua, Italy).

2010 External Reviewer for the Peer Review Panel for the Binational Science Foundation (Israel-United States).

2010 External Reviewer for the Review Panel for the Medical Research Council London Neurosciences and Mental Health Board (London, UK)

iii. PROFESSIONAL DEVELOPMENT

Bolger, D.J. (2009, April). How to Get Published: Guidance from Emerging and Senior Scholars. American Educational Research Association (AERA) Professional

Development Series, San Diego, CA.

Bolger, D.J. (2010, May). How does the brain learn to read? How does experience shape learning? Grand Rounds, Adventist Rehabilitation Hospital of Maryland, Rockville, MD.

Bolger, D.J. (2011, January). The Brain Might Read That Way. Neurology Grand Rounds at Children’s National Medical Center, Washington D.C.

Bolger, D.J. (2011, December). Brain Research on Reading: What are the Promise and Perils of Brain Based Research for Classroom Instruction.

Professional development workshop for Montgomery County Public Schools presented in Montgomery Knolls Elementary School, Silver Spring, MD.

Bolger, D.J. (2012, May). Development of Math and Reading Ability. Professional development workshop presented in the Arcola Elementary School, Montgomery County Public Schools, Silver Spring, MD.

Bolger, D.J. (2013, January). The Promise and Perils of Brain Based Research for Classroom Instruction. Professional development workshop for the Gifted and Talented Education (GATE) teachers of Daegu, South Korea, sponsored by the University of Maryland’s Professional Development Schools program.

Bolger, D.J. (2014, January). Faculty co-advisor and presenter Developmental Science Graduate Field Committee Workshop: Cognitive and Linguistic Development: Translations of Research for Educational Applications, University of Maryland, College Park, MD.

iv. PAID CONSULTANCIES

- 1997-1998 Creative Associates International, Washington D.C.: Haitian Literacy Project: data analyses for a literacy project administered in Haitian tribal communities, University of Massachusetts Amherst
- 2004-2006 Psychology Experiment Authoring Kit (PEAK): a software package for classroom instruction of experiment development and methodology, Software Development, Psychology Software Tools, Inc. Pittsburgh, PA
- 2009 Developmental Cognitive Neuroscience Laboratory, Northwestern University.

B. Campus

i. DEPARTMENTAL

- 2008-2012 Undergraduate Education Committee (Chair: 2010-2011)
- 2012-2013 Faculty Search Committee for Departmental Chair
- 2013-2014 Faculty Search Committee for two tenure-track positions
- 2012-present Graduate Admissions Committee

ii. COLLEGE WIDE

- 2011-2012 College Space Committee
- 2012-2013 Technology Planning Committee

iii. UNIVERSITY

2009-2011	Maryland Neuroimaging Center Planning Committee
2010-present	Maryland Neuroimaging Center Equipment Committee
2011-present	Maryland Neuroimaging Center Education Committee
2013	Vice President of Information Technology Strategic Planning Committee

iv. PROGRAM IN NEUROSCIENCE & COGNITIVE SCIENCE

2009-2013	Executive Committee
2009-2013	Graduate Admissions Committee

C. Community

2013	Higher Achievement Program of Washington DC, <i>Science education outreach to underprivileged youth.</i>
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*Author Note**

My work is interdisciplinary and often utilizes different conventions for authorship where theoretical pieces follow traditional models with authorship position according to effort on the manuscript (e.g. Bolger, Balass, et al., 2008; McClelland et al., in press; Perfetti et al., 2007). In the field of cognitive neuroscience, research entails a great deal of effort which necessarily leads to publications with multiple authors. The convention in the field is to place the corresponding authors who conducted much of the research at the beginning and the senior authors who conceived of the projects, obtained the funding, and led the investigation at the end. This model of authorship provides the graduate students and early post-doctoral researchers who are attempting to establish themselves to take lead authorship with the more senior researchers driving the direction of the research and analysis as well as crafting the conceptual framework of the projects. In my research lab, I have provided my students the ability to take lead authorships such as in Jackson & Bolger (2014 and in press) as well as in the numerous conference proceedings. In the larger projects, the graduate students and post-doctoral students often have taken the lead (Sprenger, Atkins, Bolger, et al., 2013) on authorship, with the senior researchers (Bolger, Bunting and Dougherty) providing the research design and plan of implementation as well as the conceptualization of the project. These projects also included undergraduate students (Atkins et al., in press) who conducted portions of the research as part of a Gemstone project (a multi-year undergraduate group research project). As a research associate at Northwestern University, I also mentored the young doctoral students (Drs. Nadia Cone, Li Liu, and Fan Cao) through their research projects providing the conceptualization and hands-on scaffolding through the analysis and interpretation of data. I assumed a senior position on many of these publications along with the PI, James Booth, (Cone et al., 2008; Liu et al., 2009; Cao et al., 2011) and with a previous research associate, Tali Bitan (Cao et al., 2010; Liu et al., 2011).