Marcia A. Barnes, Ph.D., C.Psych.

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Current Appointment and Contact Information

Professor of Special Education Peabody College, Vanderbilt University 110 Magnolia Circle, 406D OMC Nashville, TN 37203 Marcia.barnes@vanderbilt.edu

Education and Licensure

Institution:	LOCATION	MAJOR/AREA	DEGREE	YEAR
McMaster University	Hamilton	Psychology	BA	1981
McGill University	Montreal	Psychology	Honor's Yr.	1981
McMaster University	Hamilton	Cognitive Psychology	Ph.D.	1988
The Hospital for Sick Children Research Institute	Toronto	Developmental Neuropsychology	Postdoc	1987-1990

Ontario College of Psychologists, Ontario, Canada, License number 2383

Areas of Specialization

Mathematical development and disabilities; reading comprehension difficulites and interventions; inference-making; cognitive training; cognitive and academic disabilities in children with brain injuries

Appointments & Positions

Academic & Clinical

01/2018-present	Professor, Special Education, Vanderbilt University; secondary appointment,
	Department of Psychology and Human Development (2019-); Educational
	Neuroscience Group (2019-)
09/2013-12/2017	Professor, Special Education, University of Texas-Austin
09/2008-2013	Professor, Pediatrics, University of Texas Houston Health Science Center
09/2008-2013	Adjunct Faculty, Psychology, University of Houston
07/2007-08/2008	Professor, Psychology (Clinical Applied Developmental Program & Applied
	Cognitive Sciences Program), University of Guelph (associate faculty to
	2011)
07/2004-06/07	Associate Professor, Psychology, University of Guelph
01/2003-2004	Scientist, Research Institute, The Toronto Hospital for Sick Children
06/2003-06/04	Associate Professor, Pediatrics, University of Toronto
1998-2002	Associate Scientist, The Research Institute, Toronto Hospital for Sick
	Children

1995-2003	Assistant Professor, Pediatrics, University of Toronto
1993-2002	Psychologist, Psychology, Toronto Hospital for Sick Children
1992-1998	Project Director, Research Institute, Toronto Hospital for Sick Children
06-10, 1993	Psychologist, Child and Family Studies Centre, Clarke Institute of Psychiatry
08/1992 -05/93	Psychologist, Psychology, Toronto Hospital for Sick Children
07/1990-06/92	Lecturer, Psychology, McMaster University

Administrative

09/2016-12/2017 Associate Dean for Research & Graduate Studies, College of Education, University of Texas at Austin

Honors and Awards

09/2015-2017	H.E. Hartfelder/Southland Corp Regents Chair, University of Texas at Austin
2013-08/2015	Manuel J. Justiz Endowed Chair in Math, Science, and Technology in
	Teacher Education, University of Texas at Austin
06/2009-2013	Endowed Research Chair, Childhood Reading & Learning, UTHSC-Houston
2006-2008	Presidential Distinguished Professor Award for Teaching, Research, and
	Service
07/2004-09	University Research Chair, Psychology Department, College of Social and
	Applied
	Human Sciences, University of Guelph
1987-1989	Natural Sciences and Engineering Research Council Postdoctoral Fellowship
1986	Ontario Graduate Scholarship
1984	Social Sciences and Humanities Research Council Postgraduate Scholarship
1983	Social Sciences and Humanities Research Council Postgraduate Scholarship
1980	Dalley Memorial Scholarship
1978	McMaster University Scholarship

PUBLICATIONS

Peer-Reviewed Papers (*research trainees)

- 1. Powell, S.R., Urrita, V.Y., Berry, K., & Barnes, M.A. (2022). The word-problem solving and explanations of students experiencing mathematics difficulty: A comparison based on dula-language status. *Learning Disability Quarterly*. 45, 6-18.
- 2. Cirino, P., Barnes, M.A. Roberts, G., Miciak, J., & Gioia. (2022). Visual attention and reading: A test of their relation across paradigms. *Journal of Experimental Child Psychology*. https://doi.org/10.1016/j.jecp.2021.105289
- 3. Powell, S.R., Berry, K.A., Fall, A-M, Roberts, G., Barnes, M.A., Fuchs, L.S., et al. (2021). Does word-problem performance maintain? Follow-up one year after implementation of a word-problem intervention. *Journal of Reseach on Educational Effectiveness*. https://doi.org/10.1080/19345747.2021.1961332
- 4. Barnes, M.A., Davis, C.*, Kulesz, P., & Francis, D. (2021). Effects of semantic reinforcement, semantic discrimination and affix frequency on new word learning in skilled

- and less skilled readers in grades six to twelve, *Journal of Experimental Child* Psychology, 205, https://doi.org/10.1016/j.jecp.2020.105083
- 5. Barth, A.*, Daniel, J., Roberts, G., Vaughn, S., & Barnes, M.A. (2021). The role of knowledge availability in forming inferences with rural middle grade English Learners. *Learning & Individual Differences*, 88, https://doi.org/10.1016/j.lindif.2021.102006
- 6. Martinez-Lincoln, A.*, Barnes, M.A., & Clemens, N.H. (2021). Differential effectiveness of an inferential reading comprehension intervention for struggling middle school readers in relation to mind wandering, anxiety, mindset, and English Learner status. *Annals of Dyslexia*, 71(2), 322-345. https://doi.org/10.1007/s11881-020-00209-7
- 7. Macdonald, K.T., Barnes, M.A., Miciak, J., Roberts, G., Halverson, K.K., Vaughn, S.R., & Cirino, P.T. (2020). Behavioral and cognitive attention in struggling readers. *Scientific Studies of Reading*. https://doi.org/10.1080/10888438.2020.1826950
- 8. Queally, J.T., Barnes, M.A., Castillo, H.A., Castillo, J., & Fletcher, J.M. (2020). SBA Guidelines for the Neuropsychological Care of People with Spina Bifida, *Journal of Pediatric Rehabilitative Medicine*, 13(4), 663-673
- 9. Powell, S.R., Berry, K., Fall, A-M, Roberts, G., Fuchs, L.S, & Barnes, M.A. (2020). Alternative paths to improved word-problem performance: An advantage for embedding pre-algebraic reasoning instruction within word-problem intervention. *Journal of Educational Psychology*, 113(5), 898-910.
- 10. Barnes, M.A., Clemens, N.H., Fall, A-M., Roberts, G., Klein, A., Starkey, P., McCandliss, B., Flynn, K., & Zucker, T. (2020). Cognitive correlates of difficulties in math and reading in pre-kindergarten children at high risk for learning disabilities. *Journal of Educational Psychology*. *112*(4), 685–700.
- 11. Ahonle, Z.J*., Barnes, M.A., Romero, S., Sorrells, A., & Brooks, G.L. (2019). Vocational rehabilitation in traumatic brain injury: What predictors are associated with successful employment outcomes? *Rehabilitiation Counseling Bulletin*.
- 12. Fuchs, L., Fuchs, D., Seethaler, Barnes, M.A. (2020). The role of working memory in mathematical word-problem solving: Implications for instruction and intervention. *The International Journal on Mathematics Education*, *ZDM*, 52, 87-96.
- 13. Powell, S.R., Berry, K.A., & Barnes, M.A. (2019). The role of algebraic reasoning within a word problem intervention for third-grade students with mathematics difficulty. *The International Journal on Mathematics Education, ZDM*.
- 14. Cirino, P.T., Kulesz, P.A., Child, A.E., Ware, A.L., Barnes, M.A., Fletcher, J.M., & Dennis, M. (2019). The role of neurocognitive factors in academic fluency for children and adults with spina bifida myelomeningocele. *Journal of the International Neuropsychological Society*. 25(3), 249-265.
- 15. Cirino, P.T., Miciak, J., Ahmed, Y., Barnes, M.A., Taylor, P., & Gerst, E.H. (2019). Executive function: Association with multiple reading skills. *Reading and Writing*, *32*(7), 1819-1846.

- 16. Hall, C*., Vaughn, S., Barnes, M. A., Stewart, A., Austin, C., & Roberts, G. (2019). Effects of inference instruction on the inference generation and reading comprehension of English learners with reading comprehension difficulties in Grades 6 and 7. *Remedial and Special Education*. *82*(5), 279-286.
- 17. Montroy, J.J., Merz, E.C., Williams, J.M., Landry, S.H., Johnson, U.Y., Zucker, T.A., Assell, M., Taylor, H.B., Lonigan, C.J., Phillips, B.M., Clancy-Menchetti, J., Barnes, M.A., Eisenberg, N., Spinard, T., Valiente, C., de Villiers, J., de Villiers, P., the School Readiness Research Consortium (2019). Hot and cool dimensionality of executive function: Model invariance across age and maternal education in preschool children. *Early Childhood Research Quarterly*, 49, 188-201.
- 18. Cirino, P. T., Ahmed, Y., Miciak, J., Taylor, W. P., Gerst, E. H., & Barnes, M. A. (2018). A framework for executive function in the late elementary years. *Neuropsychology*, 32(2), 176-189.
- 19. Peng P., Barnes, M.A., Wang, C., Wang, W., Swanson, L., Dardick, W., Li, S., & Tao, S. (2018). A meta-analysis on the relation between reading and working memory. *Psychological Bulletin*, 144, 48-76.
- 20. Swanson, E., Barnes, M.A., Fall, A-M., & Roberts, G. (2018). Predictors of reading comprehension among struggling readers who exhibit differing levels of inattention and hyperactivity. *Reading & Writing Quarterly: Overcoming Learning Disabilities*. 34, 132-146.
- 21. Barnes, M.A., Martinez-Lincoln, A.*, & Raghubar, K. (2017). Mathematical learning disabilities: What does the science tell us about assessment and diagnosis? *Perspectives on Language and Literacy* 43(1), 10.-19.
- 22. Gorman, S., Barnes, M.A., Swank, P., & Ewing-Cobbs, L. (2017). Recovery of working memory following pediatric traumatic brain injury: A longitudinal analysis, *Developmental Neuropsychology*, 42, 127-145.
- 23. Hall, C.*, & Barnes, M.A. (2017). Making Inferences to Support Reading Comprehension for Upper Elementary Students. *Intervention in School and Clinic*, 52(5), 279-286.
- 24. Raghubar, K.P., & Barnes, M.A. (2017). Early numeracy skills in preschool-aged children: A review of neurocognitive findings and implications for assessment and intervention. *The Clinical Neuropsychologist.* 31(2), 329-351.
- 25. Wolters, C., Barnes, M.A., Francis, D., York. M., & Kulesz. P.A. (2017). Examining a motivational treatment and its impact on adolescents' reading comprehension and fluency. *The Journal of Educational Research.* 110(1), 98-109.
- 26. Cirino, P.T., Miciak, J., Gerst, E., Barnes, M.A., Vaughn, S., Child, A., & Huston-Warren, E. (2016). Executive function, self-regulated learning and reading comprehension: A training study. *Journal of Learning Disabilities*. doi 0022219415618497.
- 27. Ahmed, Y., Francis, D.J., York, M., Fletcher, J.M., Barnes, M.A., & Kulesz, P. (2016). An evaluation of the Direct and Inferential Mediation (DIME) Model of Reading Comprehension using Latent Variables. *Contemporary Educational Psychology.* 44, 68-82.

- 28. Kulesz, P.A.*, Francis, D.J., Barnes, M.A., & Fletcher, J.M. (2016). The Influence of Reader Characteristics, Comprehension Processes and Passage Features on Reading Comprehension: An Explanatory Item Response Study. *Journal of Educational Psychology*, 108(8), 1078-1097.
- 29. Barnes, M.A., Klein, A., Swank, P., Starkey, P., McCandliss, B., Flynn, K., Zucker, T., Huang, K., Fall, A-M, & Roberts, G. (2016). Effects of tutorial interventions in mathematics and attention for low-performing preschool children. *Journal of Research in Educational Effectiveness*, 9, 577-606.
- 30. Gorman, S.*, Ewing-Cobbs, L., Barnes, M.A., Swank, P. (2016). Does processing speed mediate the effect of pediatric traumatic brain injury on working memory? *Neuropsychology*, 30(3), 263-273.
- 31. Peng, P., Namkung, J., Barnes, M., & Sun. C. Y. (2016). A Meta-Analysis of mathematics and working memory: Moderating effects of working memory domain, type of mathematics skill, and sample characteristics. *Journal of Educational Psychology*. 108(4), 455-473.
- 32. Barnes, M.A., Stuebing, K., Fletcher, J.M., Barth, A., & Francis, D. (2016). Investigating Cognitive Difficulties in Struggling Comprehenders: A Comparison of Group Selection and Regression-Based Models. *Journal of Research in Educational Effectiveness*, 9, 153-172.
- 33. Merz, E. C.*, Zucker, T. A., Landry, S. H., Williams, J. M., Assel, M., Taylor, H. B., Lonigan, C.J., Phillips, B.M., Clancy-Menchetti, J., Barnes, M.A., Eisenberg, M., de Villiers, J., & School Readiness Research Consortium. (2015). Parenting predictors of cognitive skills and emotion knowledge in socioeconomically disadvantaged preschoolers. *Journal of Experimental Child Psychology*, 132, 14-31.
- 34. Barth, A.*, Barnes, M.A., Francis, D., York, M., & Vaughn, S. (2015). Bridging inferences among adequate and struggling adolescent comprehenders and relations to reading comprehension. *Reading and Writing*. 28, 587-609. PMCID: PMC4496006
- 35. Denton, C.A., Enos, M., York, M.J., Francis, D.J., Barnes, M.A., Kulesz, P.A., Fletcher, J.M., & Carter, S. (2015). Text processing differences in adolescent adequate and poor comprehenders reading accessible and challenging narrative and informational text. *Reading Research Quarterly*, 50, 393-416.
- 36. Raghubar, K.*, Barnes, M.A., Dennis, M., Cirino, P.T., Taylor, H., & Landry, S. (2015). Neurocognitive predictors of mathematical processing in school-age children with spina bifida and their typically developing peers: Attention, working memory, and fine motor skills. *Neuropsychology*. 29(6), 861-873.
- 37. Barnes, M.A., Ahmed, Y., Barth, A.*, & Francis, D.J. (2015). The relation of knowledge-text integration processes and reading comprehension in seventh to twelfth grade students. *Scientific Studies of Reading*, 19, 253-272.
- 38. Lonigan, C. J., Phillips, B. M., Clancy, J., Landry, S. H., Swank, H. B., Starkey, P., R., Assel, M., Taylor, Klein, A., Domitrovich. C. E., Eisenberg, N., de Villiers, J., de Villiers, P., Barnes, the Readiness (2015).School Consortium. **Impacts** of a curriculum for preschool children at school readiness of educational difficulties. Child Development, 86, 1773-1793.

- 39. Merz, E. C.*, Landry, S.H., Zucker, T.A., Barnes, M.A., Assel, M., Taylor, H.B., Lonigan, C.J., Phillips, B.M., Clancy-Menchetti, J., Eisenberg, N., de Villiers, J., & the School Readiness Research Consortium. (2015). Parenting predictors of delay inhibition in socioeconomically disadvantaged preschoolers. Infant and Child Development, 25(5), 371-390.
- 40. Barnes, M. A., Raghubar, K. P.,* English, L.*, Williams, J. M., Taylor, H., & Landry, S. (2014). Longitudinal mediators of achievement in mathematics and reading in typical and atypical development. Journal of Experimental Child Psychology, 119, 1-16. PMCID: PMC3924776
- 41. Barnes, M.A., Raghubar, K.P.*, Faulkner, H.*, & Denton C.A. (2014). The Construction of visual-spatial situation models in children's reading and their relation to reading comprehension. Journal of Experimental Child Psychology, 119, 101-111. PMCID: PMC3985737
- 42. Barnes, M.A., & Raghubar, K.* (2014). Mathematics development and difficulties: The role of visual-spatial perception and other neurocognitive skills. Pediatric Blood and Cancer, 61(10), 1729-1733.
- 43. Landry, S.H., Zucker, T., Taylor, H.B., Swank, P.R., Williams, J.M., Assel, M.A., Crawford, A., Clancy-Menchetti, J., Eisenberg, H., Spinrad, T.L., Valiente, C., Lonigan, C.J., Phillips, B.M., Wilson, S., Barnes, M., Starkey, P., Klein, A., and the School Readiness Consortium (2014). Enhancing early childcare quality and learning for toddlers at risk: The responsive early childhood program. Developmental Psychology, 50(2) 526-541.
- 44. Arrington, C.N.*, Kulesz, P.A., Francis, D.J., Fletcher, J.M., & Barnes, M.A. (2014). The contribution of attentional control and working memory to reading comprehension and decoding. Scientific Studies of Reading. 18, 325-346.
- 45. Martin, R., Cirino, P., Sharp, K., & Barnes, M.A. (2014). Number and counting skills in kindergarten as predictors of grade 1 mathematical skills. Learning and Individual Differences. 34, 12-23.
- 46. Merz, E. C.*, Landry, S. H., Williams, J. M., Barnes, M. A., Eisenberg, N., Spinrad, T. L., ... & Clancy-Menchetti, J. (2014). Associations among parental education, home environment quality, effortful control, and preacademic knowledge. Journal of Applied Developmental Psychology, 35(4), 304-315.
- 47. Ornstein, T.J., Max, J.E., Schachar, R., Dennis, M., Barnes, M., Ewing-Cobbs, L., & Levin, H.S. (2013). Response inhibition in children with and without ADHD after traumatic brain injury. Journal of Neuropsychology, 7, 1-11.
- 48. Raghubar, K.*, Barnes, M.A., Prasad, M., Johnson, C.P., & Ewing-Cobbs, L. (2013). Mathematical outcomes in childhood TBI: Math fact retrieval, computation, and applied problem solving. Journal of the International Neuropsychological Society, 19, 254-263. PMCID: PMC3727918
- 49. Taylor, H.T., Barnes, M.A., Landry, S.H., Swank, P., Fletcher, J.M., & Huang, F. (2013). Contingency Learning and Infants with Spina Bifida. Journal of the International Neuropsychological Society, 19, 206-215.

- 50. Pike, M.*, Swank, P., Taylor, H., Landry, S., & Barnes, M.A. (2013). Effect of preschool working memory, language and narrative abilities on inferential comprehension at schoolage in children with spina bifida myelomeningocele and typically developing children. Journal of the International Neuropsychological Society, 19, 1-10.
- 51. Ewing-Cobbs, L., Prasad, M. R., Mendez, D., Barnes, M. A., & Swank, P. (2013). Social interaction in young children with inflicted and accidental traumatic brain injury: relations with family resources and social outcomes. Journal of the International Neuropsychological Society, 19, 1-11.
- 52. Landry, S. H., Taylor, H. B., Swank, P. R., Barnes, M., & Juranek, J. (2013). Longitudinal mediators of social problem solving in spina bifida and typical development. Rehabilitation Psychology, 58(2), 196-205.
- 53. Miles, B.*, Anderson, P.*, Agostino, A.*, Golomb, M., Achonu, C., Armstrong, D., Blanchette, V., Feldman, B., Iwenofu, L., McLimont, M., McNeely, M., Revel-Vilk, S., Stain, AM., & Barnes, M.A. (2012). Effect of intracranial bleeds on the neurocognitive, behavioral, and adaptive functioning of boys with hemophilia. Haemophilia, 18(2), 229-234.
- 54. Gorman, S.*, Barnes, M.A., Prasad, M., & Ewing-Cobbs, L. (2012). The effects of pediatric brain injury on verbal and visual-spatial working memory. Journal of the International Neuropsychological Society, 18, 29-38.
- 55. Martin, R. B., Cirino, P. T., Barnes, M. A., Ewing-Cobbs, L., Fuchs, L. S., Stuebing, K. K., & Fletcher, J. M. (2012). Prediction and Stability of Mathematics Skill and Difficulty. Journal of Learning Disabilities, 46(5), 428-443.
- 56. Barnes, M.A., Stubbs, A*., Raghubar, K.P.*, Agostino, A.*, Taylor, H., Landry, S.B., Fletcher, J.M., & Smith-Chant, B.* (2011). Mathematical Skills in 3- and 5- Year Olds with Spina Bifida and their Typically Developing Peers: A Longitudinal Approach. Journal of the International Neuropsychological Society, 17, 385-392.
- 57. Raghubar, K.*, Barnes, M.A., & Hecht, S. (2010). Working memory and mathematics: A review of developmental, individual difference and cognitive approaches. Learning and Individual Differences, 20, 110-122.
- 58. Pike, M.A.*, Barnes, M.A., & Barron, R.W. (2010). The role of illustrations in children's inferential comprehension. Journal of Experimental Child Psychology, 105, 243-255.
- 59. English, L.*, Barnes, M.A., Fletcher, J.M., & Dennis, M. (2010). Effects of reading goals on reading comprehension, reading rate, and allocation of working memory in children with spina bifida myelomeningocele. Journal of the International Neuropsychological Society, 16, 517-525.
- 60. Dennis, M. & Barnes, M.A. (2010). The cognitive-behavioral phenotype in spina bifida myelomeningocele. Developmental Disabilities Research Reviews, 16, 31-39.
- 61. Taylor, H.B., Landry, S.H., Barnes, M., Cohen, L., Swank, P, and Fletcher, J (2010). Early information processing among infants with and without spina bifida. Infant Behavior and Development, 33, 365-372.

- 62. Hutchison, J.S., Frndova, H., Lo, T.Y.M., Guerguerian, A.M. for the Hypothermia Pediatric Head Injury Trial Investigators (M.A. Barnes, investigator, steering committee) and the Canadian Critical Care Trials Group (2010). Impact of hypotension and low cerebral perfusion pressure on outcomes in children treated with hypothermia therapy following severe traumatic brain injury: A post hoc analysis of the Hypothermia Pediatric Head Injury Trial. Developmental Neuroscience, 32, 406-412.
- 63. English, L.*, Barnes, M.A., Taylor, H., & Landry, S. (2009). The development of mathematical skills in spina bifida. Developmental Disabilities Research Reviews, 15(1), 28-34.
- 64. Dennis, M., Francis, D.J., Cirino, P.T., Schachar, R., Barnes, M.A., & Fletcher, J.M. (2009). Why IQ is not a covariate in cognitive studies of neurodevelopmental disorders. Journal of the International Neuropsychological Society, 15, 331-343.
- 65. Hanten, G., Li, X., Newsome, M., Swank, P., Chapman, S.B., Dennis, M., Barnes, M.A, Ewing-Cobbs, L., & Levin, H.S. (2009). Oral reading and expressive language after childhood TBI: Trajectory and correlates of change over time. Topics in Language Disorders, 29:3, 236-248.
- 66. Raghubar, K.*, Cirino, P., Barnes, M.A., Ewing-Cobbs, L., Fuchs, L. & Fletcher, J.M. (2009). Errors in multi-digit arithmetic and behavioral attention in children with math difficulties. Journal of Learning Disabilities, 42, 356-371.
- 67. Ornstein, T. J., Levin, H.S., Chen, S., Hanten, G., Ewing-Cobbs, L., Dennis, M., Barnes, M.A, Max, J.E., Logan, G.D., & Schachar, R. (2008). Performance monitoring in children following traumatic brain injury. Journal of Child Psychiatry & Psychology.
- 68. Ewing-Cobbs, L., Prasad, M., Swank, P., Kramer, L., Cox, C., Fletcher, J., Barnes, M.A, Zhang, X., & Hasan, K. (2008). Arrested development and disruption of myelin in the corpus callosum following pediatric traumatic brain injury. NeuroImage, 42(4), 1305-1315.
- 69. Hutchison, J., Ward, R., Lacroix, J., Hebert, P., Barnes, M.A., Bohn, D., Dirks, P., Doucette, S., Fergusson, D., Gottesman, R., Joffe, A., Kirpalani, H., Meyer, P., Morris, K., Moher, R., Singh, R., Skippen, P. (2008). Hypothermia therapy following traumatic brain injury in children. Hypothermia therapy following traumatic brain injury in children. New England Journal of Medicine, 358(23), 28-37.
- 70. Johnston, A.M.*, Barnes, M.A., & Desrochers, A. (2008). Reading comprehension: Developmental processes, individual differences, and interventions. Canadian Psychology, 49(2), 125-132.
- 71. Barnes, M.A., Huber, J., Johnston, A*., & Dennis, M. (2007). A model of comprehension in spina bifida myelomeningocele: Meaning activation, construction, and revision. Journal of the International Neuropsychological Society, 13, 854-864.
- 72. Mabbott, D.J., Barnes, M.A., Laperierre, N., Landry, S.H., & Boufett, E. (2007). Neurocognitive function in same-sex twins following focal radiation for medulloblastoma. Neuro-Oncology, 9, 460-464.
- 73. Lomax-Bream, L.E., Taylor, H.B., Landry, S.H., Barnes, M.A, Fletcher, J., & Swank, P. (2007). Role of Early Parenting and Motor Skills in Development of Children with Spina Bifida. Journal of Applied Developmental Psychology, 28, 250-263.

- 74. Dennis, M., Jewell, D., Drake, J., Misakayan, T., Spiegler, B., Hetherington, R., Gentile, F., & Barnes, M.A. (2007). Prospective, declarative, and non-declarative memory in young adults with spina bifida Journal of the International Neuropsychological Society, 13, 312-323.
- 75. Lomax-Bream, L.E., Barnes, M.A, Copeland, K., Taylor, H.B., & Landry, S.H. (2007). The impact of spina bifida on development across the first three years. Developmental Neuropsychology, 31, 1-20.
- 76. Cirino, P.T., Ewing-Cobbs, L., Barnes, M.A., Fuchs, L., & Fletcher, J.M. (2007). Cognitive arithmetic differences in learning disability groups and the role of behavioural inattention. Learning Disabilities Research and Practice, 22, 25-35.
- 77. Ewing-Cobbs, L., Prasad, M., Kramer, L., Cox, C.S., Baumgartner, J., Fletcher, S., Mendex, D., Barnes, M.A, Zhang, X., & Swank, P. (2006). Late intellectual and academic outcomes following traumatic brain injury sustained in early childhood. Journal of Neurosurgery-Pediatrics, 105, 287-296.
- 78. Hutchison J, Ward R, Lacroix J, Hébert P, Skippen P, Barnes, M.A, Meyer P, Morris K, Kirpalani, H, Singh R, Dirks P, Bohn D, Moher D, for the HYP-HIT investigators and the Canadian Critical Care Trials Group (2006). Hypothermia pediatric head injury trial (HypHIT): A run-in report. Developmental Neuroscience, 28, 291-301.
- 79. Barnes, M.A., Wilkinson, M., Boudousquie, A., Khemani, E.*, Dennis, M., & Fletcher, J.M. (2006). Arithmetic processing in children with spina bifida: Calculation accuracy, strategy use, and fact retrieval fluency. Journal of Learning Disabilities, 39, 174-187.
- 80. Dennis, M., Landry, S., Barnes, M.A, & Fletcher, J.M. (2006). Neurocognitive function in spina bifida over the lifespan. Journal of the International Neuropsychological Society. 12, 285-296.
- 81. Hetherington, R., Dennis, M., Barnes, M.A. Drake, J., & Gentilli, F. (2006). Functional outcomes in young adults with spina bifida and hydrocephalus. *Child's Nervous System.* 22, 117-124.
- 82. LeBlanc, N., Chen, S., Swank, P., Ewing-Cobbs, L., Barnes, M.A, Dennis, M., Max, J., Levin, H., & Schachar, R. (2005). Response inhibition after traumatic brain injury (TBI) in children: Impairment and recovery. *Developmental Neuropsychology*, 28, 829-848.
- 83. Barnes, M.A., Dennis, M., & Hetherington, R. (2004). Reading and writing skills in young adults with spina bifida and hydrocephalus. *Journal of the International Neuropsychological Society.* 10, 655-663.
- 84. Barnes, M.A., Faulkner, H.*, Wilkinson, M., & Dennis, M. (2004). Meaning construction and integration in children with hydrocephalus. *Brain and Language*, 89, 47-56.
- 85. Ewing-Cobbs, L., Barnes, M.A, Fletcher, J., Levin, H.S., Swank, P.R. & Song, J. (2004). Modeling of longitudinal academic achievement scores after pediatric traumatic brain injury. *Developmental Neuropsychology*, 25, 107-134.
- 86. Hanten, G., Dennis, M., Barnes, M.A, Zhang, L., Roberson, G., Archibald, J, Song, J, & Levin, H. (2004). Childhood Head Injury and Metacognitive Processes in Language and Memory. *Developmental Neuropsychology.* 25, 85-106.
- 87. Levin, H.S., Hanten, G., Zhang, L., Swank, P., Ewing-Cobbs, L., Dennis, M., Barnes, M.A., Max, J., Schachar, R., Chapman, S.B., & Hunter, J.V. (2004). Changes in working memory after traumatic brain injury in children. *Neuropsychology*, *18*, 240-247.

- 88. Revel-Vilk, S., Golomb, M.R., Achonu, C., Marie Stain, A., Armstrong, D., Barnes, M.A, Anderson, P., Logan, W.J., Sung, L., McNeely, M. Blanchette, V., & Feldman, B.M. (2004). Effect of intracranial bleeds on the health and quality of life of boys with hemophilia *Journal of Pediatrics*, 144, 490-495.
- 89. Roncadin, C., Guger, S., Archibald, J., Barnes, M.A, & Dennis, M. (2004). Working memory after childhood closed head injury. *Developmental Neuropsychology*, 25, 21-36.
- 90. Ewing-Cobbs, L., Barnes, M.A., and Fletcher, J.M. (2003). Early brain injury in children: Development and reorganization of cognitive function. *Developmental Neuropsychology*, 24, 669-704.
- 91. Barnes, M.A., Pengelly, S.*, Dennis, M., Wilkinson, M., Rogers, T., & Faulkner, H.* (2002). Mathematics skills in good readers with hydrocephalus. *Journal of the International Neuropsychological Society*, 8, 72-82.
- 92. Dennis, M. & Barnes, M.A. (2002). Numeracy skills in adults with spina bifida. *Developmental Neuropsychology*. 21, 141-156.
- 93. Fletcher, J.M., Foorman, B.R., Boudousquie, A., Barnes, M., Schatschneider, C., & Francis, D.J. (2002). Assessment of reading and learning disabilities: A research-based, intervention-oriented approach. *Journal of School Psychology*, 40 27-63.
- 94. Fletcher, J., Barnes, M.A, & Dennis, M. (2002). Language development in children with spina bifida. *Seminars in Pediatric Neurology*, 9, 201-208.
- 95. Ewing-Cobbs, L. & Barnes, M.A, (2002). Linguistic outcomes following acquired brain injury in children. *Seminars in Pediatric Neurology*, *9*, 209-217.
- 96. Barnes, M.A. (2002). The decoding-comprehension dissociation in the reading of children with hydrocephalus: A reply to Yamada. *Brain and Language*, 80, 260-263.
- 97. Barnes, M.A., & Dennis, M. (2001). Knowledge-based inferencing after childhood head injury. *Brain and Language*, 76, 253-265.
- 98. Barnes, M.A., Faulkner, H.*, & Dennis, M. (2001). Poor reading comprehension despite fast word decoding in children with hydrocephalus. *Brain and Language*, 76, 35-44.
- 99. Cain, K., Oakhill, J.V., Barnes, M.A., & Bryant, P.E. (2001). Comprehension skill, inference making ability and their relation to knowledge. *Memory and Cognition*, 29, 850-859.
- 100. Dennis, M. & Barnes, M. A. (2001). Comparison of literal, inferential, and intentional text comprehension in children with mild or severe closed head injury. *Journal of Head Trauma Rehabilitation*, 16, 456-468.
- 101. Dennis, M., Guger, S., Roncadin, C., Barnes, M.A, & Schachar, R. (2001). Attentional-inhibitory control and social-behavioural regulation after childhood closed head injury: Do biological, developmental, and recovery variables predict outcome? *Journal of the International Neuropsychological Society*, 7, 683-692.
- 102. Dennis, M., Guger, S., Roncadin, C., Barnes, M., & Schachar, R. (2001). Attentional control and social discourse after childhood closed head injury: Are frontal injury, age at injury, and time since injury predictive? *Brain and Cognition*, 47, 197-200.

Marcia Barnes Curriculum Vitae Page 11

- 103. Dennis, M., Purvis, K., Barnes, M.A., Wilkinson, M., & Winner, E. (2001). Understanding of literal truth, ironic criticism, and deceptive praise following childhood head injury. *Brain and Language*, 78, 1-16.
- 104. Dennis, M., Rogers, T., & Barnes, M.A. (2001). Children with spina bifida perceive visual illusions but not multistable figures. *Brain and Cognition*, *46*, 108-113.
- 105. Dennis, M., & Barnes, M.A. (2000). Speech Acts after mild or severe head injury. *Aphasiology*, 14, 391-405.
- 106. Barnes, M.A., Dennis, M., & Wilkinson, M. (1999). Reading after closed head injury in childhood: Effects on decoding, fluency, and comprehension. *Developmental Neuropsychology*, 15, 1-24.
- 107. Barnes, M.A. & Dennis, M. (1998). Discourse after early-onset hydrocephalus: Core deficits in children of average intelligence. *Brain and Language*, *61*, 309-334.
- 108. Dennis, M., Barnes, M.A., Wilkinson, M., & Humphreys, R. (1998). Childhood head injury and emotion in stories. *Brain and Language*, *61*, 309-334.
- 109. Hetherington, R., Dennis, M., Kennedy, D., Barnes, M.A., & Drake, J. (1998). Congenital cerebellar dysmorphology: Motor function and MRI-based morphometric analyses. *Brain and Cognition*, *37*, 34-40.
- 110. Dennis, M., Barnes, M.A., Wilkinson, M., & Humphreys, R.P. (1998). How children with head injury represent real and deceptive emotion in short narratives. *Brain & Language*, *61*, 450-483.
- 111. Barnes, M.A., Dennis, M., & Haefele-Kalvaitis, J.* (1996). The effects of knowledge availability and knowledge accessibility on coherence and elaborative inferencing in children from six to fifteen years of age. *Journal of Experimental Child Psychology*, 61, 216-241.
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- 113. Dennis, M. & Barnes, M.A. (1994). Neuropsychologic function in same-sex twins discordant for perinatal brain damage. *Journal of Developmental and Behavioral Pediatrics*, 15, 124-130.
- 114. Dennis, M., Jacennik, B., & Barnes, M.A. (1994). The content of narrative discourse in children and adolescents after early-onset hydrocephalus and in normally-developing age peers. *Brain and Language*, 46, 129-165.
- 115. Dennis, M & Barnes, M.A. (1993). Oral discourse after early-onset hydrocephalus: Linguistic ambiguity, figurative language, speech acts, and script-based inferences. *Journal of Pediatric Psychology*, 18, 639-652.
- 116. Barnes, M.A & Dennis, M. (1992). Reading in children and adolescents after early-onset hydrocephalus and in their normally-developing age-peers: Phonological analysis, word recognition, word comprehension and passage comprehension skill. *Journal of Pediatric Psychology*, 17, 445-465.

- 117. Dennis, M., & Barnes, M.A. (1990). Knowing the meaning, getting the point, bridging the gap, and carrying the message: Aspects of discourse following closed head injury in childhood and adolescence. *Brain and Language*, 39, 428-446.
- 118. Seidenberg, M.S., Waters, G.S., Barnes, M.A., & Tanenhaus, M.K. (1984). When does irregular spelling or pronunciation influence word recognition? *Journal of Verbal Learning and Verbal Behavior*, 383-404.

Special Issue In Progress

Vaughn, S.R., & Barnes, M.A. (Eds.). Reconsidering reading comprehension. Special Issue of *Learning and Individual Differences* (4 papers, 2 commentaries).

Book Chapters

- Barnes, M.A., Clemens, N.H., & Miller, A.H.* (2022). Contributions of cognitive science to Special Education research and practice: Historical context, current influences and future directions. In Farmer, T.W., Talbott, E., McMaster, K., Lee, D. & Aceves, T(Eds: 2022). Handbook of special education research: Theory, methods, and developmental processes. Routledge.
- 2. Barnes, M.A. & Miller, A.H.* (in press). Instructional interventions for math learning difficulties. Contributing authors to Chapter: Learning Differences/Exeptional Learners in the *International Science and Evidence Based Education Assessment (ISEEA)*, UNESCO MGIEP, the Mahatma Gandhi Institute for Education for Peace and Sustainable Development (Future of Education Initiative).
- **3.** Cain, K. & Barnes, M.A. (2017). Reading comprehension. What develops and when? In K. Cain, D. Compton and R. Parrila (Eds.), *Theories of Reading Development*. John Benjamins.
- **4.** Barnes, M.A., & Raghubar, K. (2017). Neurodevelopmental disorders as model systems for understanding typical and atypical mathematical development. In D. Geary, D. Berch, R. Oschendorf, & K. Mann Koepke (Eds.), *Acquisition of Complex Arithmetic and Higher-Order Mathematics Concepts*. Elsevier Inc.
- **5.** Barnes, M.A. (2015). What do Models of Reading Comprehension and its Development have to Contribute to a Science of Comprehension Practice and Assessment for Adolescent Students? In K. Santi & D. Reed (Eds.), *Improving Comprehension for Middle and High School Students*. Springer.
- 6. Barnes, M.A., Fuchs, L., & Ewing-Cobbs, L. (2010). Neuropsychological and Cognitive Approaches to Mathematical Disabilities. Yeates, K., Taylor, G., Ris, D., & Pennington, B. (Eds.) *Pediatric Neuropsychology: Research, Theory, and Practice 2nd Edition*. New York: Guilford Publications.
- 7. Barnes, M.A., English, L., & Landry, S.H. (2010). Development in Spina Bifida: Neurobiological and environmental factors. In Barnes, M.A. (Ed.). *Genes, brain and development: The neurocognition of genetic disorders*. UK: Cambridge University Press.
- **8.** Taylor, H., Landry, S.H., English, L., & Barnes, M.A. (2010). Spina Bifida Myelomeningocele and Hydrocephalus: Pediatrics. In S.J. Hunter & J. Donders (Eds.) *Principles and Practice of Lifespan Developmental Neuropsychology*

- 9. Barnes, M.A. & Fuchs, L. (2008). Learning Disabilities. In Wolraich, M.L., Dworkin, P.H., Drotar, D.D., & Perrin, E.C. (Eds.) *Developmental-Behavioral Pediatrics: Evidence and Practice*. Amsterdam: Elsevier. (peer-reviewed)
- 10. Barnes, M.A., Ewing-Cobbs, L., & Fletcher, J.M. (2007). Mathematical disabilities in congenital and acquired neurodevelopmental disorders. In Berch, D. B., & Mazzocco, M. M. (Eds.). *Children's Mathematical Learning: Difficulties and Disabilities*. Baltimore MD: Paul H. Brookes Publishing.
- 11. Barnes, M.A, Johnston, A., & Dennis, M. (2007). Comprehension in a neurodevelopmental disorder: Spina Bifida Myelomeningocele. In K. Cain & J. Oakhill (Eds.) *Cognitive Bases of Children's Language Comprehension Difficulties*, New York: Guilford Publications Inc.
- 12. Barnes, M.A., Smith-Chant, B., & Landry, S. (2005). Number processing in neurodevelopmental disorders: Spina bifida myelomenigocele. In J.I.D. Campbell (Ed.) *The Handbook of Mathematical Cognition*. (pp.299-313). New York: Psychology Press. (peerreviewed)
- 13. Fletcher, J.M., Dennis, M., Northrup, H., Barnes, M.A, Hannay, H.J., Landry, S.H., Copeland, K., Blaser, S.E., Kramer, L.A., Brandt, M.E., & Francis, D.J. (2004). Spina Bifida: Genes, brain and development. In Glidden, L.M. (Ed.), *International Review of Research on Mental Retardation* (Vol. 29). San Diego: Academic Press.
- 14. Lyon, G.R., Fletcher, J.M., & Barnes, M.A. (2003). Learning Disabilities. In E.J. Mash & R.A. Barkley (Eds.) *Child Psychopathology (2nd ed.)*. (pp. 520-586). New York: Guilford Press.
- 15. Fletcher, J.M., Lyon, G.R., Barnes, M.A., Stuebing, K.K., Francis, D.J., Olson, R.K., Shaywitz, S.E., & Shaywitz, B.A. (2002). Classification of learning disabilities: An evidenced-based evaluation. In R. Bradley, L. Danielson, & D. Hallahan (Eds.), *Identification of learning disabilities: Research to practice*. Mahwah NJ: Erlbaum. pp. 185-250.
- 16. Dennis, M., Barnes, M.A., & Hetherington, C.R. (1999). Congenital hydrocephalus as a model of neurodevelopmental disorder. In H. Tager-Flusberg (Ed.). *Neurodevelopmental Disorders: Contributions to a New Perspective from the Cognitive Neurosciences*. Cambridge, MA: MIT Press, pp 505-532.
- 17. Dennis, M., Hetherington, CR., Spiegler, B., & Barnes, MA. (1999). Functional consequences of congenital cerebellar dysmorphologies and acquired cerebellar lesions of childhood. In S. H. Broman, & J.M. Fletcher (Eds.). *The Changing Nervous System: Neurobehavioral Consequences of Early Brain Disorders*. New York: Oxford University.
- 18. Barnes, M.A. & Dennis, M. (1996). Reading comprehension deficits arise from diverse sources: Evidence from readers with and without developmental brain pathology. In C. Cornoldi & J.V. Oakhill (Eds.), *Reading Comprehension Difficulties: Processes & Intervention*. Hillsdale, NJ: Lawrence Erlbaum Associates, pp 251 -278.
- 19. Dennis, M. & Barnes, M.A. (1994). Developmental Aspects of Neuropsychology: Childhood. In D. Zaidel (Ed.) *Handbook of Perception and Cognition*. Volume 15. Neuropsychology. San Diego: Academic Press, pp. 219-246.

20. Levy, BA & Barnes, MA (1987). Reading fluency: Lexical access versus comprehension. In MI Posner, CB Dwived, & IL Singh (Eds.). *Perspectives on Cognitive Psychology: Festschrift in Honour of M.M. Sinha*. Varanasi: Anand Publishing House.

Books

Fletcher, J.M., Lyon, G.R., Fuchs, L.S., & Barnes, M.A. (2019). *Learning Disabilities: From Identification to Intervention-2nd Edition*. Guilford Publications: New York. (over 70% new material)

Fletcher, J.M., Lyon, G.R., Fuchs, L.S., & Barnes, M.A. (2007). *Learning Disabilities: From Identification to Intervention*. Guilford Publications: New York. (2nd printing January, 2007 and Finnish & Portuguese translations).

Edited Book

Barnes, M.A. (2010). Genes, brain and development: The neurocognition of genetic disorders. Cambridge University Press: UK

Peer Reviewed Presentations and Abstracts (from 2015 only)

- 1. Miller, A.H., Barnes, M.A., Roberts, G., Fall, A.-M. & Klein, A. (2022, February 16-18). *Contributions of attention, working memory, and inhibition to ANS acuity performance in pre-kindergarten children*. Pacific Coast Research Conference, San Diego, CA.
- 2. Barnes, M.A., Barth, A., Clemens, N., Simmons, D., Hall, C., Roberts, G., & Fall, A-M. Knowledge predicts inference-making and inference-making interventions improve knowledge acquisition. In symposium (K. McMaster & P. Kendeou) Reading Comprehension: The Impact of Skills and Knowledge. Virtual meeting of the Scientific Study of Reading Conference, July 2021.
- 3. Mason, S., Clemens, N., Barnes, M.A., & Fall, A-M. Preliminary validation of a measure of inferential reading comprehension. Poster presentation virtual meeting of the Scientific Study of Reading Conference, July 2021.
- 4. Farrell, A., Gioia, A., Miller, A.*, Barnes, M., Roberts, G., Cappelli, P., & Cirino, P. (2021). Mind wandering and reading in middle school. *Meeting of the International Neuropsychological Association*, February (on-line due to COVID).
- 5. Barnes, M.A., Martinez-Lincoln, A., Clemens, N.H., Simmons, D., Hall, C.S., Fogarty, M., Roberts, G., Simmons, L., & Vaughn, S.R. (2020). Effects of an inference-making intervention for struggling middle school readers. *Pacific Coast Research Conference*, February, San Diego.
- 6. Martinez-Lincoln, A., Barnes, M., & Clemens, N. (2020). Moderators of an inference-making intervention for middle school students with reading difficulties. Poster presented at the Pacific Coast Research Conference, February, San Diego, CA.
- 7. Ahonle, Z., Barnes, M.A., Romero, & Sorrells, A. (2019). State-federal vocational rehabilitation as a public health intervention for patients with traumatic brain injury. American Congress of Rehabilitation Medicine Annual Conference, Chicago, November, 2019.

- 8. Barnes, M.A., Klein, A., Roberts, G., Fall, A-M, & McCandliss, B. (2019). Individual Differences in Attention Uniquely Predict Math Outcomes in Preschoolers at High Risk for Math Difficulties. In symposium *Understanding Individual Differences in Mathematics Knowledge*. Cognitive Development Society, Louisville, Kentucky, October.
- 9. Barnes, M.A. Effects of semantic reinforcement, semantic discrimination and affix frequency in new word learning in skilled and less skilled readers in grades 6 to 12. In symposium, Application of Explanatory Item Response Models in Literacy Research. Society for the Scientific Study of Reading, Toronto, Canada, July 2019
- 10. Barnes, M.A., Martinez-Lincoln, A., Klein, A., Roberts, G., Fall, A-M, & McCandliss, B. (2019). Effects of combined attention and mathematics interventions in at-risk pre-kindergarten children are moderated by working memory. *Math Cognition and Learning Society* Meeting, Ottawa, Canada, June 16-18.
- 11. Martinez-Lincoln, A., Barnes, M.A., Sinclair, A., Lemons, C., & Peng, P. (2019). Cognitive moderators of math intervention: A systematic review. Poster presented at the Pacific Coast Research Conference, February, San Diego, CA.
- 12. Martinez-Lincoln, A., Barnes, M.A., Fall, A. Roberts, G. & Klein, A. (2018). *Cognitive Abilities Moderate the Effects of a Math Intervention in At-Risk Preschoolers*. Poster presentation given at the Pacific Coast Research Conference, February 1-3, San Diego, CA.
- 13. Powell, S. R., Barnes, M. A., Berry, K. A., Benz, S. A., Forsyth, S. R., & Martinez-Lincoln, A. (2018). Word-problem intervention for students with mathematics difficulty and differential performance favoring females over males. Paper presented at the American Education Research Association, April. New York, NY.
- 14. Peng P., Wang, C., Barnes, M.A., Wang, W., Swanson, L., Dardick, W., Tao, S. (2017). A Meta-Analysis of the Relation Between Reading and Working Memory. *SREE Spring Conference*, Washington, D.C. March 3, 2017.
- 15. Powell, S., Barnes, M.A., Berry, K., Martinez-Lincoln, A., Benz, S., & Forsyth, S. (2017). *The impact of schema instruction on word-problem solving for students at risk for mathematics disability.* Poster presentation given at the Society for Research in Child Development Biennial Meeting, April 6-8, Austin, TX.
- 16. Quinn, J., Roberts, G.J., Capin, P., Barnes, M., Daniel, J., & Steinle, P. (2017). Incorporating working memory into the Direct and Inferential Mediated (DIME) Model of Reading Comprehension. Society for the Scientific Study of Reading, Halifax, N.S. July.
- 17. Barnes, M.A., Ahmed, Y., Francis, D., Barth, A., & Vaughn, S. (2017). Inferential Comprehension in Adolescent Readers: Bridging the Gap from Exploratory Research to Intervention Design. Presented in Symposium Designing Research Studies to Support the Next Step in Developing Feasible and Efficacious Interventions, *SREE Spring Conference*, Washington, D.C. March 2, 2017.
- 18. Barnes, M.A. (February 2016). Neurodevelopmental disorders as model systems for understanding math disabilities. *Pacific Coast Research Conference*

- 19. Barnes, M.A., Barth, A., & Ahmed, Y. (2016). Inference-making and its relation to reading comprehension in adolescents in Symposium *Reading in Secondary School*. BPS Developmental Psychology Section Annual Conference, Belfast, Ireland, September 14-16, 2016.
- 20. Ahmed, Y., Francis, D. J., York, M., Fletcher, J., Barnes, M.A. & Kulesz, P. (July 2015). An evaluation of the direct and mediated (DIME) model of reading comprehension using latent variables. *Society for the Scientific Study of Reading*.
- 21. Barnes, M.A. (2015). Is there a role for cognitive processes in reading and math interventions. Discussant for A3 Symposium. *Institute of Education Sciences PI Meeting*, Washington, DC, December 9.
- 22. Barnes, M.A., & Klein, A. (2015). The effects of intensive early interventions in mathematics and attention for low-performing preschool children. In the panel *Training Cognitive Processes and Academic Skills Together: Clever Synthesis or Fool's Errand?* Paper to be presented at the Pacific Coast Research Conference, Coronado Bay, CA. February 5-7.
- 23. Cirino, P.T., Barnes, M.A., Ware, A., Fletcher, J.M., & Dennis, M. (2015). Predictors of academic fluency in spina bifida. Poster presented at the *International Neuropsychological Society Meeting*. Boulder, CO. February 5-7.
- 24. Peng, P., Namkung, J. M., & Barnes, M. A. (2015). Mathematics and Working Memory: A Meta-Analysis to Explore the Moderation Effects of Domains of Working Memory, Type of Mathematics Skills, Sample Characteristics, and Mathematics Assessment. Poster presentation at 2015 American Educational Research Association annual conference, Chicago, IL.
- 25. Peng, P., Namkung, J. M., & Barnes, M. A. (2015). The Relationship between Mathematics and Working Memory: A Meta-Analysis. Poster presentation at 2015 Pacific Coast Research Conference, San Diego, CA.
- 26. Barnes, M.A. & Klein, A. (2015). Intensive interventions in mathematics and attention for low-performing preschool children. Invited IES panel presentation at the Council for Exceptional Children Annual Conference, San Diego, April 10.
- 27. Kulesz, P.A., Francis, D.J., Barnes, M.A., & Fletcher, J.M. (2015, July). The influence of reader and text characteristics on reading comprehension: An explanatory item response study. Paper to be presented at Struggling Readers in Adolescence: Assessment and Intervention Considerations Symposium at the 2015 Twenty-Second Annual Meeting Society for the Scientific Study of Reading, Waimea, HI.

Invited Presentations (past 5 years)

- 1. February 17, 2018. Sources of reading comprehension difficulties in adolescents: What do we know and what can we do about it? Keynote address, Middle State Tennessee University, Annual Literacy Research Conference
- 2. February 1, 2018. Discussant for Keynote (Dr. Paul Morgan), Pacific Coast Research Conference, Coronado Bay, CA.

- 3. January 11, 2018. Presentation in Panel 1: *Concurrent Math and Attention Interventions for Preschoolers at Risk for Math Difficulties*; and Discussant for Panel 2, Leadership Meeting of the IES A3 Initiative (Embedding Cognitive Training in Direct Skills Interventions), Institute for Education Sciences, Washington, D.C.
- 4. September 26, 2017. M. Barnes & N. Clemens, Predicting Risk for Co-Occurring Difficulties in Reading and Mathematics in Prekindergarten Children in Premier Poster Session, NSF STEM Education, Learning Disabilities, and the Science of Dyslexia, Pentagon City
- 5. December 15, 2016. Panel Presentation "Tips for Success: Responsible Inquiry from Start to Finish." IES PI Meeting, Washington, DC.

GRANT FUNDING

Active

- 09/21-08/25 National Science Foundation. Effects of Combined Attention and Academic Interventions for Kindergarten Children with Significant Difficulties in Mathematics. Award # 2100328 EHR: \$2,499,099
 Role: PI
- 09/20-08/24 Institute of Education Sciences. A Randomized Trial of the Connect-IT
 Intervention in Middle School Students with or at Risk for Reading Disabilities.
 R324A200101: \$3,066,224
 Role: PI
- O7/20-25 Institute of Education Sciences. Systematic Replication of Pre-K Mathematics Tutorial: The Effect of Variation in the Intervention Delivery Model on Mathematics Achievement of At-Risk Preschool Children (PI: Kylie Flynn, WestEd). R324R200011
 Role: Co-PI
- 07/20-25 IES. Development of an Intervention to Improve Word- and Text-Reading
 Efficiency for Students with or at Risk for Word-Level Reading Disability (PI:
 Nathan Clemens, UT-Austin). R324A200209
 Role: Co-PI
- 11/19-2025 Office of Special Education Programs, U.S. Department of Education. *National Center for Leadership in Intensive Interventions*. H325H190003; \$6,400,000 Role: Co-PD (Consortium Personnel Preparation Grant)
- 09/19-08/24 NIH. *Understanding Word-Reading & Calculations Comorbid Learning Disabilities*. \$3,588,797. D. Fuchs & L. Fuchs MPI; R01HD097772 Role: Co-I
- 2019-2024 Office of Special Education Programs, U.S. Department of Education. *Preparing Leaders in Special Education to Meet the Intensive Needs of Students with Complex Learning Disabilities*. H325D180086; \$1,250,000 Role: Principal Investigator (Personnel Preparation Grant)
- 2017-2022 National Institutes of Health, *Texas Center for Learning Disabilities* JM Fletcher (PI); *Project 2: Attention in Reading and Reading* Difficulties Role: Co-PI (P. Cirino PI, Project 2).

Past (U.S. funding only from 2010)

- Institute of Education Sciences, U.S. Department of Education. Project Connect-IT (Connecting Text by Inference and Technology): Development of a Text-Integration Intervention for Middle School Students with Comprehension Difficulties. R324A170150; \$1,500,000 Role: Principal Investigator
- 2015-2019 Institute of Education Sciences, U.S. Department of Education. *Developing Connections Between Word Problems and Mathematical Equations to Promote Word-Problem Performance Among Students with Mathematics Difficulty*. R324A150078; Role: Co-PI (S. Powell, PI)
- 2011-2017 Institute of Education Sciences, U.S. Department of Education. A Randomized Trial of a Tutor-Based Mathematics and Attention Intervention for Low-Performing Preschoolers at Risk for Mathematical Difficulties in School. R324A110270; \$4,081,051
 Role: Principal Investigator
- 2012-2017 Institute of Education Sciences, U.S. Department of Education; *Enhancing Early Learning for Infants with Disabilities: A Responsive Parent Intervention* Role: Co-PI; (H. Taylor PI)
- 2011-2016 National Institutes of Health, *Texas Center for Learning Disabilities* JM Fletcher (PI); *Project 2: Executive Functions and Reading* Role: Co-I (P. Cirino PI, Project 2)
- Institute of Education Sciences, U.S. Department of Education; *Interventions and Professional Development Models: Language & Literacy Pre-kindergarten to Grade 12* NCSER Postdoctoral Training Grant; IES R324B110007. Principal Investigator (funded to 2016 at UT-Houston).
- Institute of Education Sciences, U.S. Department of Eucation; *Understanding Malleable Cognitive Processes and Integrated Comprehension Interventions for Grades 7-12.* R305F100013; Site PI UT-Houston; Co-PI at UT Austin (S. Vaughn PI).

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Research Advisory Boards

2021-	Advisory Board, IES Grant to Deborah Reed
2017-2019	Advisory Board, NSF Grant to Tatsuoka & Taylor
2017-	Advisory Board, Vanderbilt NIH HUB Grant
2013-2016	Advisory Board, D. Geary NSF Grant
09/13-2019	Consultant on IES A3 Grant (PIs D. Fuchs and L. Fuchs, Vanderbilt University
09/12-2016	Consultant on IES Center for the Study of Adult Literacy (PI: D. Greenberg,
	Georgia State University

TEACHING & ADVISING

VANDERBILT UNIVERSITY

COURSES TAUGHT

Spring 2022	Professional Seminar II (SPED 8200)
Fall 2021	Leadership in Special Education (SPED 8600)
Spring 2021	Professional Seminar II (SPED 8200)
Fall 2020	Leadership in Special Education (SPED 8600)
Spring 2020	Professional Seminar II (SPED 8200)
Fall 2019	Leadership in Special Education (SPED 8600)
Fall 2018	Leadership in Special Education (SPED 8600)
Spring 2018	Trends and Issues in Learning Disabilities (SPED H 7100)

MASTER'S STUDENTS:

Academic Advisor:

Herin Kim (2018-2019) Salome D'Sa (2019-2021) Victoria Stewart (2020-2021) Bethany Mills (2020-2021) Deyin Chen (2021-) Rachel Stadwick (2021-) Carolyn Yee (2021-)

Research Supervisor:

Lauren Pittman (2019)
Herin Kim (summer 2019)
Salome D'Sa (2019-2021)
Victoria Stewart (2020-2021)
Deyin Chen (2021-)
Bethany Mills (2021-2021)
Rachel Stadwick (2021-)
Carolyn Yee (2021-)

Major Project Reader: 1 (2018); 2 (2019); 2 (2020); 4 (2021)

Masters Thesis Committee: 1 (2019)

ADVISING (DOCTORAL)

PRIMARY ADVISOR

2021-	Vishakha Agrawal, Department of Special Education
2020-	Melanie Chong, Department of Special Education
2020-	Guy Martin, Department of Special Education (Co-advisor with C. Lemons)
2019-	Anna Miller, Department of Special Education

COMMITTEE MEMBER VANDERBILT

2022-	Abby Taylor, MAP and Dissertation Committee, Special Education, ECSE
2021-	Sally Fuhler, MAP and Dissertation Committee, Special Education, HIP
2021-	Jake Kaufman: MAP and Dissertation Committee, Psychology and Human
	Development
2021-	Min Hyun Oh: MAP and Dissertation Committee, Special Education, HIP
2021-	Ellie Hanson: MAP and Dissertation Committee, Special Education, HIP
2018-	Tin Nguyen: Qualifying Exam Committee & Dissertation Committee,
	Neuroscience Program
2019-2020	Meagan Walsh: MAP and Dissertation Committee, Special Education, HIP
2019-2021	Alyssa Van Camp: MAP and Dissertation Committee, Special Education, HIP
2019-2020	Rachel Donegan: MAP and Dissertation Committee, Special Education, HIP
2019-2021	Katherine Sargent: MAP and Dissertation Committee, Special Education, HIP
2019-2021	Brittany Lee Martin: MAP and Dissertation Committee, Special Education, HIP

COMMITTEE MEMBER EXTERNAL

2021- Abigail Farrell, Psychology, University of Houston

2021- Alexis Boucher, Special Education, University of Texas at Austin

OTHER (POSTDOCTORAL)

2019- Amanda Martinez-Lincoln, Academic Pathways Mentoring Committee Member, Vanderbilt

OTHER EXTERNAL MENTOR

2021- Jihyun Lee, Assistant Professor, University of Wyoming, Academic Writing Fellows Mentor

UNIVERSITY OF TEXAS AT AUSTIN (primary supervision only)

PRIMARY DOCTORAL ADVISOR

2015-2019	Amanda Martinez-Lincoln, Special Education (co-chair with Nathan Clemens)
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2014-2015 Zacchues Ahonle, Special Education, (co-chair with Audrey Sorells)

UNIVERSITY OF HOUSTON (primary supervision or co-supervision only)

DOCTORAL ADVISOR:

2008-06/2012 Kimberly Raghubar, Ph.D, candidate, Clinical Neuropsychology (co-chair with P. Cirino)

MASTER'S THESIS ADVISOR:

2011- 10/2012 Nikki Arrington, M.A. candidate, Developmental Psychology, (co-chair with J. Fletcher)

UNIVERSITY OF GUELPH (teaching & primary supervision only)

COURSES TAUGHT

Winter 2008	Cognitive Assessment	University	y of Guelr	oh (Psyc*6690). Clinical	Program
* * III to 1 , 2000		, CIII V CI DI L	, or oucr		,. Cililicui	I I O SI ulli

Fall, 2007	Learning Disorders: I	Research and Clinical	Practice (Psyc6010*)
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Fall, 2007	Psychology 3440, Cognitive Development (undergr	aduate)
,		

Fall, 2005 Developmental Psychology, (Psyc*6630)

Winter 2005 Cognitive Assessment (Psyc*6690). Clinical Program

Winter, 2005 Applications of Cognitive Science (Psyc*6750 1 week module)

Fall, 2004 Psychology 3440, Cognitive Development (undergraduate)

PRIMARY ADVISOR DISSERTATION

2008-2012	Meredith Pike, Ph.D., Clinical Program in Applied Developmental Psyc	hology

2006-2012 Amber Johnston, Ph.D., Clinical Program in Applied Developmental Psychology

PRIMARY ADVISOR MASTER'S THESIS

2006-2008	Kim Raghubar, M.A., Clinical Program in Applied Developmental Psychology
2006-2008	Meredith Pike, M.A., Clinical Program in Applied Developmental Psychology
2006-2008	Lianne English, M.A., Clinical Program in Applied Developmental Psychology

2004-2006 Amber Johnston, M.A., Clinical Program in Applied Developmental Psychology

UNIVERISTY OF TORONTO & TORONTO HOSPITAL FOR SICK CHILDREN RESEARCH INSTITUTE

MASTER'S THESIS ADVISOR

2003-2005 Ekta Khemani, MSc., Institute of Medical Sciences, University of Toronto

DISSERTATION COMMITTEE

2000-2004	Rhonda Martinussen,	Ph D	Institute	of Medical	Science	University	of Toronto
2000 200 1	Miona mainasson,	111.1.	montuic	or micurcar	DCICITCO,	Cinversity	or roronto

1999-2002 Jolene Huber, Ph.D. Institute of Medical Science, University of Toronto

SAMUEL LUNENFELD SUMMER RESEARCH STUDENT PROGRAM

1992-2003 12 undergraduate students from the University of Western Ontario, Queen's University, McMaster University, and University of Guelph from Departments of Psychology, Medicine, and Biology completed summer research interships

CLINICAL SUPERVISION CPA/APA PREDOCTORAL INTERNSHIP PROGRAM

03/2002-09/2002	Jody Levenbach, Clinical Psychology, University of Windsor
09/1997-03/1998	Trina Epstein, Clinical Psychology, Rutgers University
03-08, 1997	Don Mabbott, Psychology, University of Alberta
04-08, 1996	Michael Kuhne, OISE, University of Toronto

MCMASTER UNIVERSITY

COURSES TAUGHT

Fall, 1990, 1991, Spring, 1991: Psychology 3U3, Human Memory (undergraduate) Winter 1991, 1992: Psychology 3V3, Laboratory in Human Memory (undergraduate)

POSTDOCTORAL FELLOWS

Clinical Fellows

02/2007-05/2008	Dr. Claudia Koshinsky-Clipsham (University of Guelph & HSC), Primary
	Supervisor (Alternate Supervisor from January 1-May, 2008)
07/2002-12/2002	Dr. Brenda Miles (HSC), Primary Supervisor
10/2001-06/2002	Dr. Donald Mabbott (HSC), Alternate Supervisor
09/2000-2002	Dr. Andrea Downie, (HSC), Alternate Supervisor
05/2000-09/2001	Dr. Christine Wasson, Alternate Supervisor
03/2000-06/2001	Dr. Sharon Guger, Alternate Supervisor
06/99-09/2000	Dr. Simone Kortstee. Alternate Supervisor
06/99-06/2000	Dr. Peter Anderson, Alternate Supervisor
10/96-04/98	Dr. Heather Faulkner, Primary Supervisor
04/94-08/95	Dr. Marion Eals, Primary Supervisor

Research Fellows

09/16-05/18	Colby Hall, Ph.D. UT Austin; Current Position: Assistant Professor, University of
	Texas Houston Health Science Center
01/12-2016	Amy Barth, Ph.D. Primary Mentor NIH K01 Award; Current Position: Associate
	Professor, Education, Buena Vista University
09/11-2013	Sarah Priebe, Ph.D., Primary Mentor, IES Postdoctoral Fellowship
02/11-2013	Tammy Tolar, Ph.D., Mentor for NIH K99 award
10/09-12/10	Alba Agostino, Ph.D., Held at University of Guelph, Current Position: Assistant
	Professor, Trent University
01/02-08/02	Brenda Smith-Chant, Ph.D. (Research Training Competition Scholarship, Research
	Institute, HSC). Current Position: Associate Professor, Trent University
04/02-01/03	Caroline Roncadin, Ph.D. (co-supervisor). Current Position: Clinical Director,
	Austism Spectrum Program, McMaster Children's Hospital
1996-1999	Heather Faulkner, Ph.D. (Easter Seal Postdoctoral Fellowship)

SERVICE

PROFESSION

EDITORIAL BOARDS

03/2021- Scientific Studies of Reading, Associate Editor

2015-2018; 2020- Journal of Educational Psychology

2019 & 2020 Guest Associate Editor, Journal of Educational Psychology

04/2012 - Journal of Learning Disabilities

01/2013- Quarterly Journal of Learning Disabilities

05/2006-2015 Journal of the International Neuropsychological Society

GRANT REVIEW PANELS (selected)

2018-2019	U.S. Department of Education-Institute of Educational Sciences, NCSER

Research Training Grants Panel (Early Career Awards)

2011-14 U.S. Department of Education-Institute of Educational Sciences, Mathematical

and Science Education Research Review Panel (regular panel member) and guest

reviewer for Special Education Panel (February 2012)

02/2009 U.S. Department of Education-Institute of Educational Sciences, Mathematical

and Science Education Research Review Panel (temporary member)

2004-2008 Chair of Committee B (Social and Behavioral Sciences), US March of Dimes

National Grants Review Panel

COMMUNITY (selected or recent)

SERVICE TO GOVERNMENT, EDUCATION, & ADVOCACY AGENCIES

2021-	Scientific Adivsory Board Member (mathematics), Curry Ingram Academy
2016-08/2018	Guidelines for the Care of People with Spina Bifida. Neuropsychology Working
	Group Member. Spina Bifida Association. spinabifidaassociation.org/guidelines
2005-2007	Advisory Committee Member, Council of Directors of Education (Ontario)
03/07-2010	Consultant and collaborator on a Response to Intervention pilot project
	(grade 1 reading and progress monitoring), Windsor Essex Catholic District
	School Board
05/07-2008	Consultant on a Response to Intervention pilot project, Hamilton Wentworth
	Public District School Board
2004-2005	Panel Member, Expert Panel on Literacy and Numeracy Instruction for
	Special Education Students. Ministry of Education, Special Education Policy and
	Programs Branch

PRESENTATIONS & WORKSHOPS

11/4/2021

11/4/2021	Presentation to Currey Ingram faculty
01/16/2021	Presenter in Peabody Research Spotlight Series
10/23/2020	Guest presenter in CEC-DR Webinar "The On Campus Interview"

10/22//2014	Cognitive Science Matters to Middle School: Applications to Instruction and
	Learning, Middle School Matters Fall Summit, Dallas, TX. Two seminars on
	application of cognitive science principles for middle school (attended by
	teachers, librarians, and administrators)
06/18/2014	Cognitive Science Matters to Middle School: Applications to Instruction and
	Learning, Middle School Matters Summer Institute, Austin, TX. Two seminars
	on application of cognitive science principles for middle school (attended by
	teachers, librarians, and administrators).

REPORTS FOR GOVERNMENT

Co-author of Evaluation Phase 1 report, June 29, 2007: *The impact of the Literacy and Numeracy Secretariat: Changes in Ontario's education system.* (Member of the external evaluation team contracted through Canadian Language and Literacy Research Network to evaluate and advise the Literacy and Numeracy Secretariat, Ontario Ministry of Education: March 2007-August 2008).

Barnes, M.A. (2007). Where there's a will there's a way to close achievement gaps for children with special education needs. Research paper published in Proceedings of the 2nd Research Symposium Ontario Ministry of Education and www.edu.gov.on.ca/eng/research/barnes.pdf

Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students with Special Education Needs, Kindergarten to Grade 6. (2005). Queen's Printer for Ontario. www.edu.gov.on.ca/eng/document/reports/speced/panel

Fletcher, J.M., Lyon, G.R., Barnes, M.A, Stuebing, K.K., Francis, D.J., Olson, R.K., Shaywitz, S.E., & Shaywitz, B.A. (2002). *Classification of Learning Disabilities: An evidence-based evaluation*. Washington, DC: Department of Education. Published at www.air.org/ldsummit

Reviewer Peabody Small Grant Applications

VANDERBILT UNIVERSITY

12/2021

12/2021	Reviewer, I calouty Sman Grant Applications
09/2021-	Co-Chair, Doctoral Studies Committee, Special Education
09/2021-	Chair, Search Committee Math, Department of Special Education
04/21-11/21	Member, Destination Vanderbilt QM Search Committee, Peabody College
09/2020-	Member, Equity, Diversity & Inclusion Committee, Department of Special
	Education
01/2020-	Co-chair (with S. Powell), Curriculum Committee, National Center for
	Leadership in Intensive Intervention (OSEP Consortium training grant)
2020	Faculty Evaluation Committee, Department of Special Education (interim)
10/19-04/20	High Incidence Program area coordinator (interim for Jeanne Wanzek)
08/2019-	Faculty Mentor, Andrea Caprizzi, Assistant Professor of the Practice
09/19-03/20	Search Committee, Vision Search, Department of Special Education
09/2019-	Strategic Planning Committee, Department of Special Education
08/2018-2021	Member, Doctoral Committee, Department of Special Education