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Education

Ph.D.	University of Illinois at Urbana-Champaign Psychology (Quantitative Methods)	1999
M.S.	University of Illinois at Urbana-Champaign Statistics	1995
B.A.	Calvin College Psychology/Mathematics	1992

Positions Held

Professor, Department of Educational Psychology, Quantitative Methods Area, University of Wisconsin-Madison, 2008-present
Associate Professor, Department of Educational Psychology, Quantitative Methods Area, University of Wisconsin-Madison, 2004-2008
Assistant Professor, Department of Educational Psychology, Quantitative Methods Area, University of Wisconsin-Madison, 1999-2004
Affiliate Faculty, Department of Psychology, 2004-present
Affiliate Faculty, Department of Educational Leadership and Policy Analysis, 2004-present
Affiliate Faculty, Department of Population Health Sciences, 2004-present
Faculty, Interdisciplinary Training Program in Education Sciences (ITP), 2004-present

Honors and Awards

Vilas Associates Award, University of Wisconsin, Madison 2014-2016
Best Reviewer Award, Psychometrika, July, 2016
Outstanding Reviewer Award, Journal of Educational and Behavioral Statistics, April, 2011; April 2013; April 2015; April 2016
University of Wisconsin Chancellor's Distinguished Teaching Award, April 2009
University of Wisconsin Teaching Academy Fellow, April, 2005-present
Jason Millman Promising Scholar Award, awarded by the National Council on Measurement in Education (NCME) in recognition of scholarly research in the field of applied measurement during the early stages of career, April, 2003
Maurice Tatsuoka Scholar, University of Illinois at Urbana-Champaign, 1997-1998

Publications (Psychometrics)

- Bolt, D.M.** & Adams, D.J. (2017). Exploring rubric-related multidimensionality in polytomously-scored test items. *Applied Psychological Measurement*.
- Bolt, D.M.**, Dowling, N.M., Shih, Y-S., & Loh, W-Y. (in press). Using Blinder-Oaxaca decomposition to explore differential item functioning: Application to PISA 2009 Reading. In Jiao, H. & Lissitz, R. W.(Eds.). *Test fairness in the new generation of large-scale assessment*. Information Age Publisher.
- Le, T., **Bolt, D.M.**, Camburn, E., Goff, P., & Rohe, K. (2017) Latent factors in student-teacher interaction factor analysis. *Journal of Educational and Behavioral Statistics*.
- Bolt, D.M.**, Kim, J-S., Blanton, M. & Knuth, E. (2016). Applications of item response theory in mathematics education research. In A. Izsák, J. T. Remillard, & J. Templin (Eds.), *Psychometric methods in mathematics education: Opportunities, challenges, and interdisciplinary collaborations*. Journal for Research in Mathematics Education monograph series. Reston, VA: National Council of Teachers of Mathematics.
- van der Ark, A. L., **Bolt, D. M.**, Wang, W.-C., Douglas, J. A., & Wiberg, M. (Eds.), (2016). *Quantitative psychology research: The 80th Annual Meeting of the Psychometric Society, Beijing, 2015*. Switzerland: Springer International Publishing.
- Lee, S. & **Bolt, D.M.** (2016). Using the asymmetry of item characteristic curves (ICCs) to learn about underlying item response processes. In van der Ark, L.A., Bolt, D.M. & Wang, W-C., Douglas, J.A. & Wiberg, M. (Eds.). *Quantitative Psychology Research: The 80th Annual Meeting of the Psychometric Society, Beijing, 2015*. Switzerland: Springer International Publishing.
- Dowling, N.M., **Bolt, D.M.** & Deng, S. (2016). Distinguishing item sensitivity to between-person differences versus within-person change over time: An illustration using the ADAS-Cog. *Psychological Assessment*. <http://dx.doi.org/10.1037/pas0000285>
- Deng, S. & **Bolt, D.M.** (2016). A sequential IRT model for multiple-choice items and a multidimensional extension. *Applied Psychological Measurement*.
- Dowling, N. M., **Bolt, D.M.**, Deng, S., & Li, C. (2016). Measurement and control of bias in patient reported outcomes using multidimensional item response theory. *BMC Medical Research Methodology*, 16(1), 1.
- Bolt, D.M.** (2015). Item response models for computer-based testing. In F. Drasgow (Ed.) *Technology and Testing*. NCME Book Series.
- Bolt, D.M.** (2015). Surveys: Extreme Response. In J.D. Wright (Ed.), *International Encyclopedia of the Social and Behavioral Sciences*, 2nd ed. (pp. 758-763). doi:10.1016/B978-0-08-097086-8.44065-1
- Lu Y. & **Bolt, D.M.** (2015). Examining the achievement-attitude paradox in PISA using a multilevel multidimensional IRT model for extreme response style. *Large Scale Assessments in Education*.
- van der Ark, L.A., **Bolt, D.M.** & Wang, W-C., Douglas, J.A. & Chow, S.-M. (2015). *Quantitative Psychology Research: The 79th Annual Meeting of the Psychometric Society*. New York: Springer.
- Millsap, R.E., **Bolt, D.M.**, van der Ark, L.A. & Wang, W-C. (2015). *Quantitative Psychology Research: The 78th Annual Meeting of the Psychometric Society*. New York: Springer.
- Bolt, D.M.**, Lu, Y., & Kim, J-S. (2014). Measurement and control of response styles

- using anchoring vignettes: a model-based approach. *Psychological Methods*, 19, 528-541.
- Bolt, D.M.**, Deng, S., & Lee, S. (2014). IRT model misspecification and measurement of growth in vertical scaling. *Journal of Educational Measurement*, 51, 141-162.
- Millsap, R. E., Van der Ark, L. A., **Bolt, D. M.**, & Woods, C. M. (Eds.) (2013). *New developments in quantitative psychology*. New York: Springer.
- Bolt, D.M.**, Wollack, J.A. & Suh, Y-S. (2012). Application of a multidimensional nested logit model to multiple-choice tests. *Psychometrika*, 77, 339-357.
- Bolt, D.M.**, Piper M.E., Theobald W.E., & Baker T.B. (2012). Why two smoking cessation agents work better than one: Role of craving suppression. *Journal of Consulting & Clinical Psychology*, 80, 54-65.
- Bolt, D.M.** & Newton, J.R. (2011). Multi-scale measurement of extreme response style. *Educational and Psychological Measurement*, 71, 814-833.
- Suh, Y-S. & **Bolt, D.M.** (2011). A nested logit modeling approach for investigating distractors as causes of differential item functioning. *Journal of Educational Measurement*, 48, 188-205.
- Bolt, D.M.**, Ysseldyke, J., & Patterson, M.J. (2010). Teachers and schools as sources of variability and sustainability in implementing progress monitoring. *School Psychology Review*, 39, 612-630.
- Suh, Y-S. & **Bolt, D.M.** (2010). Nested logit models for multiple-choice item response data. *Psychometrika*, 75, 454-473.
- Johnson, T. R. & **Bolt, D.M.** (2010). On the use of factor-analytic multinomial logit item response models to account for individual differences in response style. *Journal of Educational and Behavioral Statistics*, 35, 92-114.
- Bolt, D.M.** & Johnson, T. R. (2009). Addressing score bias and DIF due to individual differences in response style. *Applied Psychological Measurement*, 33, 335-352.
- Park, C-H. & **Bolt, D.M.** (2008). Application of multilevel IRT to investigate cross-national skill profiles on TIMSS 2003. *IERI monograph Series: Issues and methodologies in large-scale assessments (vol. 1; pp. 71-96)*. IER Institute and Educational Testing Service.
- Wells, C.S. & **Bolt, D.M.** (2008). Investigation of a nonparametric procedure for assessing goodness-of-fit in item response theory. *Applied Measurement in Education*, 21, 22-40.
- Bolt, D.** (2007). The present and future of IRT-based cognitive diagnostic models (ICDMs) and related methods. *Journal of Educational Measurement*, 44, 377-383.
- Kim, J-S. & **Bolt, D.M.** (2007). Markov chain Monte Carlo estimation of item response models. *Educational Measurement: Issues and Practice*, 26, 38-51.
- Bolt, D.M.** (2007). Analyzing the Psychopathy Checklist-Revised (PCL-R) using factor analysis and item response theory: Overview and recent advances. In J.Yuille & H. Herve (Eds.) *Psychopathy in the Third Millennium: Theory and Research (pp.105-139)*. Lawrence Erlbaum.
- Bolt, D.M.**, Hare, R.D. & Neumann, C.S. (2007). Score metric equivalence of the Psychopathy Checklist-Revised (PCL-R) across criminal offenders in North America and the United Kingdom: A critique of Cooke, Michie, Hart and Clark (2005) and new analyses. *Assessment*, 14, 44-56.
- Bolt, D.M.**, & Gierl, M.J. (2006). Application of a regression correction procedure to three nonparametric tests of DIF: Implications for local and global DIF detection. *Journal of Educational Measurement*, 43, 313-333.
- Li, Y. , **Bolt, D.M.** & Fu, J. (2006). A comparison of alternative models for testlets. *Applied*

- Psychological Measurement*, 30, 3-21.
- Mroch, A. & **Bolt, D.M.** (2006). A simulation comparison of parametric and nonparametric dimensionality detection procedures. *Applied Measurement in Education*, 19, 67-91.
- Bolt, D.M.** & Kim, J-S. (2005). Hierarchical IRT modeling. In B. Everitt & D. Howell (Eds.), *Encyclopedia of statistics in the behavioral sciences, Vol 2* (pp.805-810). Wiley.
- Bolt, D.M.** (2005). Limited and full-information IRT estimation. In A. Maydeu-Olivares and J. McArdle (Eds.), *Contemporary Psychometrics* (pp.27-71). Lawrence-Erlbaum.
- Li, Y. , **Bolt, D.M.** & Fu, J. (2005). A test characteristic curve linking method for the testlet model. *Applied Psychological Measurement*, 29, 340-356.
- Cohen A.S., & **Bolt, D.M.** (2005). A mixture model analysis of differential item functioning. *Journal of Educational Measurement*, 42, 133-148.
- Bolt, D.M.**, Hare, R.D., Vitale, J., & Newman, J. (2004). A multigroup item response theory analysis of the Psychopathy Checklist-Revised (PCL-R). *Psychological Assessment*, 16, 155-168.
- Bolt, D.M.** & Lall, V.F. (2003). Estimation of compensatory and noncompensatory multidimensional IRT models using Markov chain Monte Carlo. *Applied Psychological Measurement*, 27, 395-414.
- Bolt, D.M.**, Cohen, A.S., & Wollack, J.A. (2002). Item parameter estimation under conditions of test speededness: Application of a mixture Rasch model with ordinal constraints. *Journal of Educational Measurement*, 39, 331-348.
- Wollack, J.A., **Bolt, D.M.**, Cohen, A.S., & Lee, Y-S. (2002). Recovery of item parameters in the nominal response model: A comparison of marginal maximum likelihood estimation and Markov chain Monte Carlo estimation. *Applied Psychological Measurement*, 26, 337-350.
- Bolt, D.M.** (2002). A Monte Carlo comparison of parametric and nonparametric polytomous DIF detection methods. *Applied Measurement in Education*, 15, 113-142.
- Bolt, D.M.**, Cohen, A.S., & Wollack, J.A. (2001). A mixture item response model for multiple-choice data. *Journal of Educational and Behavioral Statistics*, 26, 381-409.
- Bolt, D.M.** (2001). Conditional covariance-based representation of multidimensional test structure. *Applied Psychological Measurement*, 25, 244-257.
- Gierl, M.J. & **Bolt, D.M.** (2001). Illustrating the use of nonparametric regression to assess differential item and bundle functioning across multiple groups. *International Journal of Testing*, 3&4, 249-270.
- Bolt, D.M.** (2000). A SIBTEST approach to testing DIF hypotheses using experimentally designed test items. *Journal of Educational Measurement*, 37, 307-327.
- Bolt, D.M.** & Rounds, J. (2000). Advances in psychometric theory and methods. In S.D Brown & R.W. Lent (Eds.), *Handbook of Counseling Psychology* (pp. 140-176). New York: John Wiley & Sons.
- Bolt, D.M.** (1999). Evaluating the effects of multidimensionality on IRT true-score equating. *Applied Measurement in Education*, 12, 383-406.
- McDonald, R.P. & **Bolt, D.M.** (1998). The determinacy of variables in structural equation models. *Multivariate Behavioral Research*, 33, 385-401.
- Stout, W., Li, H., Nandakumar, R., & **Bolt, D.** (1997). MULTISIB: A procedure to investigate DIF in intentionally two-dimensional data. *Applied Psychological Measurement*, 21, 195-213.
- Bolt, D.** & Stout, W. (1996). Differential item functioning: Its multidimensional model and

resulting SIBTEST detection procedure. *Behaviormetrika*, 23, 67-95.

Publications (Substantive/Consulting)

- Piper, M.E and Cook, J.W., Schlam, T.R., Smith, S.S., **Bolt, D.M.** & Collins, L.M. & Mermelstein, R. and Fiore, M.C. and Baker, T.B. (2017). Toward precision smoking cessation treatment II: Proximal effects of smoking cessation intervention components on putative mechanisms of action, *Drug and Alcohol Dependence*, 171, 50-58,
- Piper, M.E., Schlam, T.R., Cook, J.W., Smith, S.S., **Bolt, D.M.**, Loh, W-Y, Mermelstein, R., Collins, L.M. & Fiore, M.C. & Baker, T.B. (2017). Toward precision smoking cessation treatment I: Moderator results from a factorial experiment, *Drug and Alcohol Dependence*, 171, 59-65
- Baker, T.B., Smith, S.S., **Bolt, D.M.**, Loh, W-Y., Mermelstein, R., Fiore, M.C. Piper, M.E. & Collins, L.M. (2017). Implementing clinical research using factorial designs: A primer, *Behavior Therapy*.
- Asmus, J.M., Carter, E.W, Moss, C.K., Biggs, E.E., **Bolt, D.**, Born, K. et al (in press). Efficacy and social validity of peer network interventions for high school students with severe disabilities. *American Journal on Intellectual and Developmental Disabilities*.
- Magnan, E.M., **Bolt, D.M.**, Greenlee, R.T., Fink, J., & Smith, M.A. (2016). Stratifying patients with diabetes into clinically relevant groups by combination of chronic conditions to identify gaps in quality of care. *Health Services Research*.
- Smith, M.A., Bednarz, L., Nordby, P.A., Fink, J., Greenlee, R.T., **Bolt, D.**, & Magnan, E.M. (2016). Increasing consumer engagement by tailoring a public reporting website on the quality of diabetes care: A qualitative study. *Journal of Medical Internet Research*, 18, e332.
- Hartley, S. L., Papp, L. M., & **Bolt, D.** (2016). Spillover of marital interactions and parenting stress in families of children With autism spectrum disorder. *Journal of Clinical Child & Adolescent Psychology*, 1-12.
- Baker, T.B., Piper, M.E., Stein, J.H., Smith, S.S., **Bolt, D.M.**, Fraser, D.L., & Fiore, M.C. (2016). Effects of nicotine patch vs varenicline vs combination nicotine replacement therapy on smoking cessation at 26 weeks: A randomized clinical trial. *Journal of the American Medical Association*, 315(4), 371-379
- Venker, C., **Bolt, D.**, Meyer, A., Sindberg, H., Ellis Weismer, S., & Tager-Flusberg, H. (2015). Parent Telegraphic Speech Use and Spoken Language in Preschoolers With ASD. *Journal of Speech, Language, and Hearing Research*, 58(6), 1733.
- Derdemezis, E., Vorperian, H., Kent, R., Fourakis, M., Reinicke, E., & **Bolt, D.** (2015). Optimizing vowel formant measurements in four acoustic analysis systems for diverse speaker groups. *American Journal of Speech-language Pathology*, 2015.
- Piper, M. E., Fiore, M. C., Smith, S. S., Fraser, D., **Bolt, D.M.**, Collins, L. M., ... & Loh, W. Y. (2016). Identifying effective intervention components for smoking cessation: a factorial screening experiment. *Addiction*, 111(1), 129-141.
- Cook, J. W., Collins, L. M., Fiore, M. C., Smith, S. S., Fraser, D., **Bolt, D.M.**, ... & Loh, W. Y. (2016). Comparative effectiveness of motivation phase intervention components for use with smokers unwilling to quit: a factorial screening experiment. *Addiction*, 111(1), 117-128.

- Schlam, T. R., Fiore, M. C., Smith, S. S., Fraser, D., **Bolt, D.M.**, Collins, L. M., ... & Loh, W. Y. (2016). Comparative effectiveness of intervention components for producing long-term abstinence from smoking: a factorial screening experiment. *Addiction*, *111*(1), 142-155.
- Baker, T. B., Collins, L. M., Mermelstein, R., Piper, M. E., Schlam, T. R., Cook, J. W., ... & Loh, W. Y. (2016). Enhancing the effectiveness of smoking treatment research: conceptual bases and progress. *Addiction*, *111*(1), 107-116
- Magnan, E.M., Palta, M., Mahoney, J.E., Pandhi, N., **Bolt, D.M.**, Fink, J., Greenlee, R.T. & Smith, M.A. (2015). The relationship of individual comorbid chronic conditions to diabetes care quality. *BMJ Open Diabetes Research & Care*, *3*:e000080.doi:10.1136/bmjdr-2015-000080.
- Carter, E. W., Asmus, J., Moss, C. K., Amirault, K. A., Biggs, E. E., **Bolt, D.**, Born, T. L., Brock, M. E., Cattet, G., Chen, R., Cooney, M., Hochman, J. T., Huber, H. B., Lequia, J., Lyons, G., Riesch, L., Shalev, R., Vincent, L. B., & Wier, K. (2015). Randomized evaluation of peer supports arrangements to support the inclusion of high school students with severe disabilities. *Exceptional Children*.
- Poehlmann-Tynan, J., Gerstein, E. D., Burnson, C., Weymouth, L., **Bolt, D.M.**, Maleck, S., & Schwichtenberg, A. J. (2014). Risk and resilience in preterm children at age 6. *Development and psychopathology*, 1-16.
- Kettler, R. J., Elliott, S. N., DiPerna, J. C., **Bolt, D.M.**, Reiser, D., & Resurreccion, L. (2014). Student and Teacher Ratings of Academic Competence: An Examination of Cross-Informant Agreement. *Journal of Applied School Psychology*, *30*(4), 338-354.
- Burris, C., Vorperian, H.K., Fourakis, M., Kent, R.D., & **Bolt, D.M.** (2014). Quantitative and descriptive comparison of four acoustic analysis systems: Vowel measurements. *Journal of Speech, Language & Hearing Research*, *57*, 26-45.
- Spinelli, M., Poehlmann, J., & **Bolt, D.** (2013). Predictors of parenting stress trajectories in premature infant-mother dyads. *Journal of Family Psychology*, *27*, 873-883.
- Andrews, M., **Bolt, D.M.**, Braun, M., & Benedict, R. (2013). Measuring exertion during caregiving of children and young adults with cerebral palsy who require assistance for mobility and self-care. *Physical & Occupational Therapy in Pediatrics*.
- Venker, C. E., Ray-Subramanian, C. E., **Bolt, D. M.**, & Weismer, S. E. (2013). Trajectories of autism severity in early childhood. *Journal of Autism and Developmental Disorders*, 1-18.
- Mandal, R., **Bolt, D. M.**, & Shah, B. K. (2013). Disparities in chronic myeloid leukemia survival by age, gender, and ethnicity in pre-and post-imatinib eras in the US. *Acta Oncologica*, *52*(4), 837-841.
- Loh, W-Y., Piper, M. E., Schlam, T. R., Fiore, M.C., Smith, S.S., Jorenby, D.E., Cook, J.W., **Bolt, D.M.** & Baker, T.B. (2012). Should all smokers use combination smoking cessation therapy: Using novel methods to detect differential treatment effects over 8 weeks of pharmacotherapy. *Nicotine & Tobacco Research*, *14*, 131-141.
- Roeber, B.J. Tober, C. L. **Bolt, D.M.** & Pollak, S.D. (2012). Gross motor development in children adopted from orphanage settings. *Developmental Medicine & Child Neurology*, *54*, 527-531.
- Baker, T.B., Piper, M.E. Schlam, T.R. Cook, J.W. Smith, S.S. Loh, W., & **Bolt, D.M.** (2012). Are tobacco dependence and withdrawal related amongst heavy smokers? Relevance to conceptualizations of dependence. *Journal of Abnormal Psychology*.
- Piper, M. E., Schlam, T.R., Cook, J.W., Sheffer, M.A., Smith, S.S., Loh, W-Y., **Bolt, D.M.**, Kim, Su-Y, Kaye, J.T., Hefner, K.R. & Baker, T.B. (2011). Tobacco withdrawal components

- and their relations with cessation success. *Psychopharmacology*, 216, 569-578.
- Japuntich, S.J., Leventhal, A.M., Piper, M.E., **Bolt, D.M.**, Roberts, L.J., Fiore, M.C., Baker, T.B. (2011). Smoker characteristics and smoking-cessation milestones. *American Journal of Preventive Medicine*, 40, 286-294.
- Japuntich, S.J., Piper, M.E., Leventhal, A.M., **Bolt, D.M.**, & Baker, T.B. (2011). The effect of five smoking cessation pharmacotherapies on smoking cessation milestones. *Journal of Consulting and Clinical Psychology*, 79, 34-42.
- Kettler, R.J., Rodriguez, M.R., **Bolt, D.M.**, Elliott, S.E., Beddow, P.A. & Kurz, A. (2011). Modified multiple-choice items for alternate assessments: Reliability, difficulty, and differential boost. *Applied Measurement in Education*, 24, 210-234.
- Poehlmann, J., Schwichtenberg, A.J.M., **Bolt, D.**, Hane, A., Burnso, C. & Winters, J. (2011). Infant physiological regulation and maternal risks as predictors of dyadic interaction trajectories in families with a preterm infant. *Developmental Psychology*, 47, 91-105.
- Hartley, S.L., Barker, E.T., Seltzer, M.M., Floyd, F.J., Greenberg, J.S., Orsmond, G.I., & **Bolt, D.M.** (2010). The relative risk and timing of divorce in families of children with an autism spectrum disorder. *Journal of Family Psychology*, 24, 449-457.
- Piper, M. E., Cook, J.W., Schlam, T.R., Jorenby, D.E., Smith, S.S., **Bolt, D.M.**, & Loh, W-Y (2010). Gender, race and education differences in abstinence rates among participants in Two randomized smoking cessation studies. *Nicotine & Tobacco Research*, 12, 647-657.
- Fryback, D.G., Palta, M., Cherepanov, D., **Bolt, D.**, & Kim, J. (2010). Comparison of five health-related quality-of-life indexes using item response theory. *Medical Decision Making*, 30, 5-15.
- Smith S.S., Piper M.E., **Bolt D.M.**, Fiore M.C., Wetter D.W., Cinciripini P.M., & Baker T.B. (2010). Development of the Brief Wisconsin Inventory of Smoking Dependence Motives. *Nicotine and Tobacco Research*, 12, 489-499.
- Pierce, K. M., **Bolt, D.M.**, & Vandell, D. L. (2010). Features of after-school program quality: Differential associations with children's functioning in middle childhood. *American Journal of Community Psychology*.
- Elliott, S.N., Kettler, R.J., Beddow, P.A., Kurz, A., Compton, E., McGrath, D., Bruen, C., Hinton, K., Palmer, P., Rodriguez, M., **Bolt, D.**, & Roach, A.T. (2010). Effects of using modified items to test students with persistent academic difficulties. *Exceptional Children*, 76, 475-495
- Bolt, D.M.**, Piper M.E., McCarthy D.E., Fiore M.C., Smith S.S., Baker T.B. (2009). The Wisconsin Predicting Patients' Relapse (WI-PREPARE) Questionnaire. *Nicotine & Tobacco Research*, 11, 481-492.
- Japuntich, S.J, Piper, M.E., Schlam, T.R., **Bolt, D.M.**, & Baker, T.B. (2009). Do smokers know what we're talking about? The construct validity of nicotine dependence questionnaires. *Psychological Assessment*, 21, 595-607.
- Baker, T.B., Weiss, R.B., **Bolt, D.** von Niederhausern, A., Fiore, M.C., Dunn, D.M., Piper, M.E., Matsunami, N., Smith, S.S., Coon, H., McMahan, W.M., Scholand, M.B., Singh, N., Hoidal, J.R., Kim, S-Y, Leppert, M.F.; Cannon, D.S. (2009). Human neuronal acetylcholine receptor A5-A3-B4 haplotypes are associated with multiple nicotine dependence phenotypes. *Nicotine & Tobacco Research*, 11, 785-796.
- Begun, A.L., Brondino, M.J., **Bolt, D.**, Weinstein, B., Strodthoff, T., Shelley, G. (2009). The Revised Safe At Home Instrument for Assessing Readiness to Change Intimate Partner Violence. In C.M. Murphy & R.D. Mauiuro (Eds.) *Motivational interviewing and stages of*

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- Poehlmann, J., Schwichtenberg, A.J.M., **Bolt, D.**, Dilworth-Bart, J. (2009). Predictors of depressive symptom trajectories in mothers of preterm or low birth weight infants. *Journal of Family Psychology, 23*, 690-704.
- Piper, M.E., **Bolt, D.M.**, Kim, S-Y., Japuntich, S.J., Smith, S.S., Niederdeppe, J., Cannon, D.S. & Baker, T.B. (2008). Refining the tobacco dependence phenotype using the Wisconsin Inventory of Smoking Dependence Motives. *Journal of Abnormal Psychology, 117*, 747-761.
- Piper, M., Federman, E.B., McCarthy, D.E, **Bolt, D.M.**, Smith, S., Fiore, M. & Baker, T.B. (2008). Using mediational models to explore the nature of tobacco motivation. *Journal of Abnormal Psychology, 117*, 94-105.
- Piper, M.E., McCarthy, D.E., **Bolt, D.M.**, Smith, S.S., Lerman, C., Benowitz, N., Fiore, M.C., & Baker, T.B. (2008). Assessing dimensions of nicotine dependence: An evaluation of the Nicotine Dependence Syndrome Scale (NDSS) and the Wisconsin Inventory of Smoking Dependence Motives (WISDM). *Nicotine & Tobacco Research, 10*, 1009-1020.
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- Lang, S., Elliott, S.N., Kratochwill, T.R., & **Bolt, D.M.** (2008). The effects of testing accommodations on students' performances and reactions to testing. *School Psychology Quarterly, 23*, 107-124.
- Wampold, B. & **Bolt, D.M.** (2007). Therapist effects: Clever ways to make them (and everything else) disappear. *Psychotherapy Research, 16*, 161-172.
- McCarthy, D., **Bolt, D.** & Baker, T. (2007). The importance of how: A call for mechanistic research in tobacco dependence treatment studies. In T.A. Treat, R.R. Bootzin & T.B. Baker (Eds.) *Psychological Clinical Science: Papers in Honor of Richard F. McFall* (pp.133-163). Lawrence Erlbaum.
- Piper, M. E., Federman, E. B., McCarthy, D. E., **Bolt, D.M.**, Smith, S. S., Fiore. M. C., & Baker, T. B. (2007). Efficacy of bupropion alone and in combination with nicotine gum. *Nicotine & Tobacco Research, 9*, 947-954.
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- Clements, M., **Bolt, D.**, Hoyt, W., & Kratochwill, T. (2007). Using multilevel modeling to examine effects of multi-tiered interventions. *Psychology in the Schools, 44*, 503-513.
- Shattuck, P.T., Seltzer, M.M., Greenberg, J.S., Orsmond, G.I., **Bolt, D.**, Kring, S., Lounds, J., & Lord, C. (2007). Changes in autism symptoms and maladaptive behaviors among adolescents and adults with an autism spectrum disorder. *Journal of Autism and Developmental Disorders, 37*, 1735-1747.
- Gunther, A.C, **Bolt, D.**, Borzekowski, D.L., Liebhart, J.L., & Dillard, J. (2006). Presumed influence on peers: How mass media messages indirectly affect adolescent smoking. *Journal of Communication, 56*, 52-68.
- Wampold, B.E., & **Bolt, D.M.** (2006). Therapist effects: Clever ways to make them (and

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- Vandell, D.L., Shernoff, D.J., Pierce, K.M., **Bolt, D.M.**, Dadisman, K., & Brown, B.B. (2005). Activities, engagement and emotion at after-school programs (and elsewhere). In H.Weiss, P. Little, & S. Bouffard (Eds.) *New Directions for Youth Development: Conceptualizing Participation in Out-of-School Time Programs* (pp. 121-129). San Francisco: Jossey-Bass.
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- Kettler, R.J., Niebling, B.C., Mroch, A.A., Feldman, E.S., Newell, M.L., Elliott, S.N., Kratochwill, T.R., & **Bolt, D.M.** (2005). Effects of testing accommodations on math and reading scores: An experimental analysis of the performance of students with and without disabilities. *Assessment for Effective Intervention*, 31, 37-48.
- Ysseldyke, J., Thill, T, Pohl, J., & **Bolt, D.** (2005). Using MathFacts in a Flash to enhance computational fluency. *Journal of Evidence Based Practices in Schools*, 6, 59-89.
- Vitale, J.E., Newman, J.P., Serin, R.C., & **Bolt, D.M.** (2005). Hostile attributions in incarcerated male offenders: An exploration of diverse pathways. *Aggressive Behavior*, 31, 99-115.
- Piper, M.E., Felderman, E.B., Piasecki, T.M., **Bolt, D.M.**, Smith, S.S., Fiore, M.C., & Baker, T.B. (2004). A multiple motives approach to tobacco dependence: The Wisconsin Inventory of Smoking Dependence Motives (WISDM). *Journal of Consulting and Clinical Psychology*, 72, 139-154.
- Hudmon, K.S., Marks, J.L., Pomerleau, C.S., **Bolt, D.M.**, Brigham, J., & Swan, G.E. (2003). A multidimensional model for characterizing tobacco dependence. *Nicotine and Tobacco Research*, 5, 655-664.
- Begun, A L., Murphy, C., **Bolt, D.**, Short, L., Strodthoff, T., Weinstein, B., Shelley, G.(2003). Characteristics of the Safe-at-Home Instrument for assessing readiness to change intimate partner violence. *Research in Social Work Practice*, 13, 80-107.
- Shoemaker, A. & **Bolt, D.M.** (1992). Computer measurement of the autokinetic effect. *Perceptual and Motor Skills*, 75, 771-777.

Editorial and Advisory Activities

Associate Editor: AERA Open (2014-present)

Associate Editor: Applied Psychological Measurement (2012-present)

Editorial Board: Educational and Psychological Measurement (2006-present); *Journal of Educational Measurement* (2008-present), *Journal of Educational and Behavioral Statistics* (2010-present); *American Journal on Intellectual and Developmental Disabilities* (2008-2010), *Journal of Educational Psychology* (2010-present); *Journal of Abnormal Psychology* (2004-2011)

Advisory Board: ACT Inc. Technical Advisory Committee (2015-present)
Duncan P01

Ad Hoc Journal Reviewer: Addiction, Applied Psychological Measurement, Applied Measurement in Education, Assessment, Educational Assessment, British Journal of Mathematical and Statistical Psychology, Cognition and Instruction, Educational and Psychological Measurement, European Journal of Psychological Assessment, Human Communication Research, International Journal of Testing, Journal of Educational Measurement, Journal of Educational and Behavioral Statistics, Journal of the American Statistical Association, Journal of Abnormal Psychology, Journal of Family Psychology, Journal of Mathematical Psychology, Journal of Personality and Social Psychology, Multivariate Behavioral Research, Nicotine and Tobacco Research, Psychological Methods, Psychological Assessment, Psychometrika, Rehabilitation Counseling Bulletin, Review of Educational Research, Review of Research in Education, Sociological Methodology, Structural Equation Modeling, Educational Measurement: Issues and Practice, Journal of Classification, Science Education, Frontiers in Quantitative Psychology, Developmental Psychology

Grant Review Panels/ Ad Hoc Review: National Institute of Mental Health (NIMH), Institute of Educational Sciences (IES), Spencer Foundation.

External Consulting: Educational Testing Service, Pearson VUE, Renaissance Learning

Recent Invited Presentations/Workshops (Last Five Years)

“Statistical Models for Educational and Psychological Test Data”, Calvin College Mathematics Colloquium, March 2016

“Using Oaxaca-Blinder Decomposition to Explore Underlying Causes of DIF”, University of Maryland, October, 2015

“Vertical Scales and The Score Deceleration ‘Problem’ in Measuring Student Growth” Education Department, University of California, Irvine, June 1, 2015

“The Controversy over Null Hypothesis Significance Testing” (With Peter Steiner, David Kaplan), Wisconsin Center for Educational Research (WCER), University of Wisconsin, Madison, April 2015.

“Item Complexity and Samejima’s Logistic Positive Exponent Model”, Fudan University, Shanghai, China, June, 2014.

“Measurement and Control of Response Styles Using Anchoring Vignettes: A Model-Based Approach” Invited talk at the International Meeting of the Psychometric Society (IMPS), Arnhem, The Netherlands, July, 2013.

“Measurement and Control of Response Styles Using Anchoring Vignettes: A Model-Based Approach”, QSG Series, Psychology Department, University of Notre Dame, April 11, 2013

“Measurement of Response Style in Educational and Psychological Tests”, Dept. of Statistics, University of Wisconsin, Madison November 30, 2011.

“Differential distractor functioning in multiple-choice items” ACT Visiting Scholar Series, ACT, Iowa City, IA. March, 2009.

Current and Previous Grant Support (Last Five Years)

Title: Wisconsin Center on Mental Retardation: Core Support

Source: NIH/NICHHD (07/01/06-06/30/16)

PI: Seltzer

The proposed project will provide Core Support for 76 research projects conducted by investigators pursuing research on mental retardation and developmental disabilities at the Waisman Center. The Cores include: Administration, Research Participation, Rodent Models, Cellular and Molecular Neurosciences and Brain Imaging.

Role: Biostatistician–Research Participation Core

Title: Peer support and peer network interventions

Source: IES (06/01/10-05/31/14)

PI: Carter, Asmus

This grant examines a program of peer support within schools for students with special needs.

Role: Senior Personnel

Title: Engineering Effective Interventions for Tobacco Use

Source: NIH (09/04/09-8/31/14)

PI: Fiore, Baker

This project develops and implements combination treatments for smoking cessation.

Role on project: Co-Principal Investigator (Data Center Coordinator)

Title: Improving Diabetes Quality Reports for Persons with Multiple Chronic Conditions

Source: NIH (09/30/12-08/31/15)

PI: Smith

The primary goal is to examine and ultimately support improvement in the use of public reports of provider quality by persons with diabetes and multiple chronic conditions. Role on project:

Senior personnel

Title: Value-added models and accountability: Next steps

Source: IES (03/01/09-02/28/12)

PI: Meyer

This grant develops psychometric and econometric-based models for comparisons of student growth across schools.

Role: Senior Personnel

Title: Tobacco Dependence: Treatment and Outcomes

Source: NIH/NCI (09/01/04 - 08/31/09)

PIs: Baker, Fiore

This project develops and implements combination treatments for smoking cessation.

Role on project: Co-Investigator

Title: Impact of Parenting Adolescents and Adults with Autism

Source: National Institute of Aging (09/01/07-8/31/12)

PI: Seltzer

This longitudinal study examines the impact of lifelong caregiving on families who have a son or

daughter with autism. It involves the investigation of changes in the symptoms of autism during the adolescent and adult years, and the influence of these changes on family members.

Role: Senior Personnel

Title: Social-Affective Bases of Word Learning in Fragile X Syndrome and Autism.

Source: National Institute of Child Health and Human Development. (09/01/08-8/31/11).

PI: Abbeduto.

In this project, we focus on understanding within-syndrome variability in language development in relation to AUT status among boys with FXS. We propose to use a well-established paradigm (i.e., novel word learning) to study the ways in which children with FXS (with and without AUT) use social affective cues to learn new words, how such learning processes impact later language outcomes, and how differences in AUT status and symptoms and anxiety, as well as in the environment and the FMR1 gene, contribute to within-syndrome variation in these processes.

Role: Co-Investigator

Title: Study of Promising After-School Programs

Source: Charles Stewart Mott Foundation (09/01/02 - 08/31/05)

This study examines the longitudinal effects of participating in high-quality after-school programs.

PI: Vandell

Role on project: Statistical consultant

Title: Using DIF Analyses to Examine the Effects of Testing Accommodations on Students' Responses to Test Items

Source: Office of Special Education and Rehabilitative Services, U.S. Department of Education (08/01/00-07/31/04). Total award: \$720,000

PIs: S. Elliott, T. Kratochwill, D. Bolt

Role on project: Co-PI

Title: Systemic Initiatives: Student Achievement Analysis Study

Source: National Science Foundation (09/01/00-08/31/01). Total award: \$397,493

PIs: Clune, W. & Webb, N.

Role on project: Co-Investigator, Statistician

Title: Relapse: Linking Science and Practice

Source: National Cancer Institute and National Institute on Drug Abuse, Department of Health and Human Services (09/30/99 – 08/31/04).

Total award: \$9,990,307

PIs: Fiore, M.C. & Baker, T.B.

Role on project: Co-Investigator, Statistical consultant

Title: Do after-School Programs Affect Student Experience? An Enhancement Study to the 21st Century CLC Evaluation.

Source: C.S. Mott Foundation (9/01/01-8/31/03). Total award: \$403,975.

PIs: Vandell, D., Brown, B, Pierce, K.M.

Role on project: Statistical consultant

Title: Coordination, Consultation, and Evaluation Center for Implementing K-3 Behavior and Reading Intervention Models.

Source: U.S. Dept. of Education-Office of Special Education and Rehabilitative Services
(01/01/02-12/31/05)

PIs: Elliott, S.N. & Kratochwill, T.R.

Role on project: Statistical consultant

Teaching

Ed. Psych 771: Test Construction (Fall '07, Fall '11, Fall '12, Fall '14, Fall '15)

Ed. Psych 773: Factor Analysis, Multidimensional Scaling, and Cluster Analysis
(Spring '99, '00, '01, '02, '03, '05, '06, '07, '10, '14)

Ed. Psych 870: Test Theory I (Fall '99, '01, '03)

Ed. Psych 871: Test Theory II (Spring '00, '02, '08, '11; Fall '13)

Ed. Psych 960: Structural Equation Modeling (Fall '99, '00, '01, '02, '04, '05, Spring '12, Spring '13)

Ed. Psych 964: Hierarchical Linear Modeling (Spring '01, Fall '02, Fall '03, Fall '04, Fall '05, Fall '06, Fall '07, Fall '08, Fall '09, Spring '16)

Professional Service

Treasurer, Psychometric Society (2014-present)

Local Organizer, 2014 International Meeting of Psychometric Society (IMPS), Madison WI.

Board of Trustees, Psychometric Society (2010-2013)

Program Co-chair, National Council on Measurement in Education (NCME) Annual Meeting, 2009

Reviewer of paper proposals, American Educational Research Association (AERA) Annual meetings, 2001, 2002, 2003, 2005

Reviewer of paper proposals, National Council on Measurement in Education (NCME) Annual meeting, 2002, 2004, 2006, 2007, 2009, 2010, 2015, 2016

Reviewer of NCME training program proposals, 2002

Discussant for paper session, NCME Annual meeting, 2003, 2004, 2005, 2006, 2007, 2009, 2010, 2013

Discussant for paper session, Psychometric Society Annual meeting, 2005

Member, Division D Early Career Award, American Educational Research Association (AERA), 2010-2013.

Member, Publications Committee, National Council on Measurement in Education (NCME), 2005-2008

Member, Elections Committee, National Council on Measurement in Education (NCME), 2005-2009

Chair, Elections Committee, National Council on Measurement in Education (NCME), 2006-2009

Service to the University (School of Education and Department):

Recruitment, Admissions and Fellowships Committee, Chair (2014-2016)

Student Affairs committee (1999-2000; 2001-2003)
Curriculum committee (2000; 2004-2016)
Search Committee, School psychology faculty (2003-2004)
Search Committee Chair, Quantitative methods faculty (2004-2005; 2005-2006)
Search Committee, Quantitative methods faculty (2008-2009; 2009-2010)
Search Committee, Senior administrative staff (2013)
Search Committee, Administrative staff (2015)
Faculty Review Committee (2013-2014)

School of Education Committees:

Facilities Committee (1999-2000)
Equity and Diversity Committee (2001-2003)
Programs Committee (2004-2008)
Search Committee, Research scientist in Center for Testing and Evaluation (2007-2008)
Search Committee, Chief Information Officer (CIO) for School of Education (2010)
Advisory Committee, School of Education Doctoral Research Program (2010-2011; 2012-2014)

University Committees:

Graduate School Research Committee, Social Sciences Division (2009-2012)
Genevieve Fellowship Committee (2010-2013)
Search Committee, Associate Dean of Graduate School, Social Sciences Division (2012)
Faculty Senator (2006-2007; 2012-2013)

Masters Students Previously Advised:

HyunJung Sung, 2008
Vincent Woo, 2009
Joseph Newton, 2011

Doctoral Students Previously Advised:

Craig Wells, 2004 currently Associate Professor at University of Massachusetts-Amherst
Yanmei Li*, 2005, currently Research Scientist at Educational Testing Service (ETS)
Jianbin Fu**, 2005, currently Research Scientist at Educational Testing Service (ETS)
Andrew Mroch, 2006, currently Research Scientist at National Conference of Bar Examiners (NCBE)
Taehoon Kang, 2006, currently Assistant Professor at Sungshin Women's University, South Korea
Chanho Park, 2008, currently Assistant Professor at Keimyung University, South Korea
Youngsuk Suh, 2009, currently Associate Professor at Rutgers University
Yi Lu, 2012, currently Research Scientist at American Institutes of Research (AIR)

*Recipient of the 2006 Brenda H Loyd Outstanding Dissertation Award from the National Council on Measurement in Education (NCME).

**Recipient of the 2006 Mary Catherine Ellwein Outstanding Dissertation Award from the American Educational Research Association (Division D).

Current Doctoral Students:

Sien Deng

Sora Lee

Daniel Adams