

## **Daniel M. Bolt**

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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**

Nancy C. Hoefs-Bascom Professor of Education, Department of Educational Psychology,  
Quantitative Methods Area, University of Wisconsin-Madison, 2019-present  
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  
Faculty, Interdisciplinary Training Program in Education Sciences (ITP), 2004-present

### **Honors and Awards**

President, Psychometric Society, 2019-2021  
Kellett Mid-Career Award, University of Wisconsin, Madison, 2019  
Vilas Associates Award, University of Wisconsin, Madison 2015-2017  
Treasurer, Psychometric Society, 2014-2018  
Best Reviewer Award, Psychometrika, July, 2016; July 2018  
Outstanding Reviewer Award, Journal of Educational and Behavioral Statistics, April, 2011;  
April 2013; April 2015; April 2016; April 2020  
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/Methods)**

- Bolt, D.M.**, Wang, Y.C., Meyer, R. & Pier, L. (2020). An IRT mixture model for rating scale confusion associated with negatively worded items in measures of social-emotional learning. *Applied Measurement in Education*.
- Bolt, D.M.** (2020, in press). Commentary on Reardon, Kalogrides and Ho's "Validation methods for aggregate-level test scale linking: A case study mapping school district test score distributions to a common scale." *Journal of Educational and Behavioral Statistics*.
- Kim, N. & **Bolt, D.M.** (2020). A mixture IRTree model for extreme response style: Accounting for response process uncertainty. *Educational and Psychological Measurement*.
- Bolt, D.M.**, Kim, N., Wollack, J. A., Pan, Y., Eckerly, C., & Sowles, J. (2020). A psychometric model for discrete-option multiple choice items. *Applied Psychological Measurement*, 44, 33-48.
- Kim, N., **Bolt, D.M.**, Wollack, J., Pan, Y., Eckerly, C. & Sowles, J. (2019). Modeling examinee heterogeneity in discrete option multiple choice items. In M. Wiberg, S. Culpepper, R. Janssen, J. González & D. Molenaar (Eds.). *Quantitative Psychology Research: The 83rd Annual Meeting of the Psychometric Society, New York, New York, 2018* (pp. 383-392) Springer: New York.
- Bolt, D.M.**, Lee, S., Wollack, J. A., Eckerly, C., & Sowles, J. (2018). Application of asymmetric IRT modeling to discrete-option multiple-choice test items. *Frontiers in Psychology*, 9, 2175. <https://doi.org/10.3389/fpsyg.2018.02175>
- Bolt, D.M.** (2019). *Bifactor MIRT as an Appealing and Related Alternative to CDMs in the Presence of Skill Attribute Continuity*. In M. von Davier and Y-S. Lee (Eds.). *Handbook of Diagnostic Classification Models*.
- Adams, D.J., **Bolt, D.M.**, Deng, S., Smith, S.S., & Baker, T.B. (2019). Using multidimensional IRT to evaluate how response styles impact measurement. *British Journal of Mathematical and Statistical Psychology*.
- Bolt, D.M.** & Kim, J-S. (2018). Parameter invariance and skill attribute continuity in the DINA model. *Journal of Educational Measurement*, 55, 264-280.
- Deng, S., McCarthy, D.E., Piper, M.E., Baker, T.B. & **Bolt, D.M.** (2018). Extreme response style and the measurement of intra-individual variability in affect. *Multivariate Behavioral Research*, 53, 199-218.
- Lee, S. & **Bolt, D.M.** (2018) An alternative to the lower asymptote parameter: Using asymmetric ICCs to address guessing effects in multiple-choice items. *Journal of Educational Measurement*, 55, 90-111.
- Lee, S. & **Bolt, D.M.** (2018). Asymmetric item characteristic curves and item complexity: Insights from simulation and real data analyses. *Psychometrika*, 83, 453-475.
- Deng, S. & **Bolt, D.M.** (2017). Rating scale format and item sensitivity to response style in large-scale assessments. In van der Ark, L.A., Wiberg, M., Culpepper, S.A., Douglas, J.A. & Wang, W-C. (Eds.). *Quantitative Psychology Research: The 81st Annual Meeting of the Psychometric Society, Asheville, North Carolina, 2016*. Switzerland: Springer International Publishing.
- Bolt, D.M.**, Dowling, N.M., Shih, Y-S., & Loh, W-Y. (2017). 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.
- Bolt, D.M.** & Adams, D.J. (2017). Exploring rubric-related multidimensionality in

- polytomously-scored test items. *Applied Psychological Measurement*, 41, 163-177.
- 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*, 42, 115-144.
- 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*, 28. 1576-1585.
- Deng, S. & **Bolt, D.M.** (2016). A sequential IRT model for multiple-choice items and a multidimensional extension. *Applied Psychological Measurement*, 40, 243-257.
- 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.
- 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.
- Suh, Y-S. & **Bolt, D.M.** (2010). Nested logit models for multiple-choice item response data. *Psychometrika, 75*, 454-473.
- 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.
- 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.
- 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.
- 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)**

- Goldberg, S. B., Imhoff-Smith, T., **Bolt, D. M.**, Wilson-Mendenhall, C. D., Dahl, C. J., Davidson, R. J., & Rosenkranz, M. A. (2020). Testing the Efficacy of a Multicomponent, Self-Guided, Smartphone-Based Meditation App: Three-Armed Randomized Controlled Trial. *JMIR Mental Health*, 7(11), e23825.
- Smith S.S., Piper M.E., **Bolt D.M.**, Kaye J.T., Fiore M.C.V., Baker T.B. (2020). Revision of the Wisconsin Smoking Withdrawal Scale: development of brief and long forms. *Psychological Assessment*. NIHMSID: 1643987
- Vandell, D.L., Simpkins, S.D., Pierce, K.M., Brown, B.B., **Bolt, D.** & Reisner, E. (2020). Afterschool programs, extracurricular activities, and unsupervised time: Are patterns of participation linked to children's academic and social wellbeing?, *Applied Developmental Science*, DOI: 10.1080/10888691.2020.1843460
- Schlam, T. R., Baker, T. B., Smith, S. S., **Bolt, D. M.**, McCarthy, D. E., Cook, J. W., ... & Piper, M. E. (2020). Electronically Monitored Nicotine Gum Use Before and After Smoking Lapses: Relations with Lapse and Relapse. *Nicotine & Tobacco Research*.
- Mosher, C. L., Smith, J. B., McManigle, W. C., Giovacchini, C. X., Shofer, S. L., Jha, P., ... **Bolt, D.M.**, ... & Anderson, R. N. (2020). Association of electronic cigarette use with smoking habits, demographic factors, and respiratory symptoms. *American Journal of Respiratory and Critical Care Medicine*, 202(4), 595-597.
- Garbacz, S. A., **Bolt, D. M.**, Seeley, J. R., Stormshak, E. A., & Smolkowski, K. (2020). Examining school proactive outreach to families in public middle schools. *School Psychology Review*.
- Hickey, E. J., **Bolt, D.**, Rodriguez, G., & Hartley, S. L. (2020). Bidirectional relations between parent warmth and criticism and the symptoms and behavior problems of children with autism. *Journal of Abnormal Child Psychology*, 1-15.
- Vorperian, H. K., Kent, R. D., Lee, Y., & **Bolt, D. M.** (2019). Corner vowels in males and females ages 4 to 20 years: Fundamental and F1–F4 formant frequencies. *The Journal of the Acoustical Society of America*, 146(5), 3255-3274.
- Shiyanbola, O. O., **Bolt, D.**, Tarfa, A., Brown, C., & Ward, E. (2019). A content validity and cognitive interview process to evaluate an Illness Perception Questionnaire for African Americans with type 2 diabetes. *BMC research notes*, 12(1), 308.
- Plate, R. C., Bloomberg, Z., Bolt, D. M., Bechner, A. M., Roeber, B. J., & Pollak, S. D. (2019). Abused children experience high anger exposure. *Frontiers in Psychology*, 10.
- Rodriguez, G., Hartley, S. L., & **Bolt, D.** (2019). Transactional relations between parenting stress and child autism symptoms and behavior problems. *Journal of Autism and Developmental Disorders*, 1-12.
- Weismer, S.E., Kaushanskaya, M., Larson, C., Mathee, J. & **Bolt, D.** (2018). Executive function skills in school-age children with autism spectrum: Association with language abilities. *Journal of Speech, Language, and Hearing Research*, 61, 2641-2658. doi:10.1044/2018\_JSLHR-L-RSAUT-18-0026.
- Schlam, T. R., Cook, J. W., Baker, T. B., Hayes-Birchler, T., **Bolt, D.M.**, Smith, S. S., Fiore, M. C., & Piper, M. E. (2018). Can we increase smokers' adherence to nicotine replacement therapy and does this help them quit? *Psychopharmacology*, 1-11.
- Fink, J. T., Magnan, E. M., Johnson, H. M., Bednarz, L. M., Allen, G. O., Greenlee, R. T., **Bolt,**

- D.M.** & Smith, M. A. (2018). Blood pressure control and other quality of care metrics for patients with obesity and diabetes: A population-based cohort study. *High Blood Pressure & Cardiovascular Prevention*, 1-9.
- Dilworth-Bart, J.E., Poehlmann-Tynan, J.A., Taub, A., Liesen, C.A., & **Bolt, D.** (2018). Longitudinal associations between self-regulation and the academic and behavioral adjustment of young children born preterm. *Early Childhood Research Quarterly*, 42, 193-204.
- Wild, A., Vorperian, H.K., Kent, R.D., **Bolt, D.M.** & Austin, D. (2018). Single-word Speech intelligibility in children and adults with Down Syndrome. *American Journal of Speech-Language Pathology* 27, 222-236.
- 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.
- Piper, M.E., Cook, J.W., Schlam, T.R., Smith,S.S., **Bolt, D.M.**, Collins, L.M., Mermelstein, R., Fiore, M.C. & 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.
- 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*.
- Bussanich,P., Hartley,S.L. & **Bolt, D.** (2017). Parental attributions for positive behaviours in children with autism spectrum disorder. *Journal of Intellectual Disability Research*.
- Asmus, J.M., Carter, E.W, Moss, C.K., Biggs, E.E., **Bolt, D.**, Born, K. et al (2017). Efficacy and social validity of peer network interventions for high school students with severe disabilities. *American Journal on Intellectual and Developmental Disabilities*, 122, 118-137.
- Magnan, E.M., **Bolt, D.M.**, Greenlee,R.T., Fink,J. & Smith, M.A. (2018). Stratifying patients with diabetes into clinically relevant groups by combination of chronic conditions to identify gaps in quality of care. *Health Services Research*, 53, 450-468.
- 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(12), 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
- 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
- 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*.
- 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., Cattey, 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.



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## Editorial and Advisory Activities

*Associate Editor: British Journal of Mathematical and Statistical Psychology (2019-present)*  
*Associate Editor: AERA Open (2014-present)*  
*Associate Editor: Applied Psychological Measurement (2012-2018)*  
*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 (2010-2014); Journal of Abnormal Psychology (2004-2011)*

*Advisory Boards:*

Technical Advisory Committee, ACT Inc. (2015-present)

Design & Analysis Committee, National Assessment of Educational Progress (NAEP; 2019-present)

Advisory Board, G.Duncan & D Vandell (PIs) *Understanding Variation in the Impacts of Human Capital Interventions on Children & Youth* (HD065704 P01; 2012-2016)

Advisory Board, E. Jacobson (PI) *Assessing the Structure of Knowledge in Teaching Mathematics* (NSF; 2016-present)

Advisory Board, A. Nelson & F. Lawrenz (PIs) *Collaboration in the 21<sup>st</sup> Century (C2C) Project* (NSF; 2015-2016)

Advisory Board, A. Byars-Winston (PI) *What Matters in Mentoring? Testing and Measuring a Mentor Training Intervention* (NIH; 2012)

*External Evaluator: External Reviewer, Department of Educational Psych Review, University of Texas, Austin, November 2015*

*Evaluator, A.Iszak (PI) An Interdisciplinary Conference on Assessment in K-12 Mathematics: Collaborations Between Mathematics Education and Psychometrics (NSF) 2011-2012.*

*Ad Hoc Journal Reviewer: Addiction, Applied Psychological Measurement, Applied Measurement in Education, Assessment, British Journal of Mathematical and Statistical Psychology, Cognition and Instruction, Developmental Psychology, Educational Assessment, Educational Measurement: Issues and Practice, Educational and Psychological Measurement, European Journal of Psychological Assessment, Frontiers in Psychology, Human Communication Research, International Journal of Testing, Journal of Classification, 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 Assessment, Psychological Methods, Psychometrika, Rehabilitation Counseling Bulletin, Review of Educational Research, Review of Research in Education, Science Education, Sociological Methodology, Structural Equation Modeling,*

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

*External Consulting: Educational Testing Service, Pearson VUE, Renaissance Learning, Education Analytics, Inc., MultiHealth Systems Inc.*

### **Recent Invited Presentations/Workshops (Last Eight Years)**

- “Models and Methods for the Study and Control of Response Styles in Self-Report Rating Scales”, Workshop for SMiP Program, University of Mannheim, Germany, June 5-6, 2019.
- “Item Complexity as a Cause of Score Deceleration in the Measurement of Student Growth”, Department of Psychology Colloquium, University of Mannheim, Germany, June, 2019.
- “A Psychometric Model for Discrete-Option Multiple-Choice (DOMC) items,” Presentation at Conference on Statistical Methods for Innovative Testing and Learning, Columbia University, July, 2018
- “Parameter Invariance and Skill Attribute Continuity in CDMs: Bifactor MIRT as an Appealing Alternative”, Presentation at the Fifth Conference on Statistical Methods in Psychometrics, Department of Statistics, Columbia University, New York, November, 2017.
- “Statistical Models for Educational and Psychological Test Data”, Calvin College Mathematics Colloquium, March 2016
- “Using Oaxaca-Blinder Decomposition to Explore Underlying Causes of DIF”, MARCES Conference, 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 Grant Support**

Title: Optimized Chronic Care for Smokers: A Comparative Effectiveness Approach

Source: NIH (P01 09/01/14-8/31/19)

PI: Fiore

This grant involves an integration of 4 different projects that develop and implement combination treatments for smoking cessation.

Role: Co-Principal Investigator (Data Center Coordinator)

Title: Wisconsin Innovations in Early Relational Screening, Assessment, and Support in Home Visiting.

PI: R. Clark (01/01/17-12/31/18)

In this project we develop a short form of the Parent-Child Early Relational Assessment.

Role: Co-Principal Investigator.

Title: Wisconsin Center on Mental Retardation: Core Support

Source: NIH/NICHHD (07/01/16-06/30/20)

PI: Seltzer

The proposed project will provide Core Support for ~80 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: Enhancing the Effectiveness of Varenicline-Based Smoking Cessation Treatment

Source: NIH

PI: Baker

This project studies a new pharmacology for assisting smokers in quit attempts.

Role: Statistician

### **Pending Grant Support**

Title: Embedding Family Engagement in the Tier I Systems of Schoolwide Positive Behavioral Interventions and Supports

Source: IES

PI: Garbacz, Albers

Role: Statistician

Title: Refinement and Validation of a Large-Scale Panel Survey of Student's Social Emotional Learning in Grades 3 through 12

Source: IES

PI: Meyer, Rice

Role: Consultant

### **Teaching**

Ed. Psych 771: Test Construction (Fall '07, Fall '11, Fall '12, Fall '14, Fall '15, Fall '17)

Ed. Psych 773: Factor Analysis, Multidimensional Scaling, and Cluster Analysis

(Spring '99, '00, '01, '02, '03, '05, '06, '07, '10, '14, '19)

Ed. Psych 870: Test Theory I (Fall '99, '01, '03, Spring, '18, Fall '19)

Ed. Psych 871: Test Theory II (Spring '00, '02, '08, '11; Fall '13; Spring '20)

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)