

Jee-Seon Kim

Curriculum Vitae

*Professor, Quantitative Methods
Department of Educational Psychology
University of Wisconsin–Madison
1025 W. Johnson Street
Madison, WI 53706
☎ (608) 262–0741
✉ jeeseonkim@wisc.edu*

Biosketch

Jee-Seon Kim is a Professor of Educational Psychology at the University of Wisconsin–Madison and holds a B.S. and M.S. in Statistics and a Ph.D. in Quantitative Psychology. Her research focuses on developing statistical methods to address empirical challenges in the educational, social, and behavioral sciences, with an emphasis on methods for causal inference, modeling unobserved heterogeneity, and multilevel and latent variable modeling. She applies both parametric and nonparametric approaches to study changes in learning and human development using longitudinal data.

Her current research leverages machine learning algorithms to analyze clustered observational data, with a goal of uncovering and reducing disparities to foster diversity and equity. This approach reveals nuanced individual and group-level differences, enabling more tailored, inclusive interventions and promoting equitable outcomes across diverse populations.

Education

- 2001 **Ph.D. in Quantitative Psychology**, *University of Illinois at Urbana–Champaign*.
Minors: Mathematics & Cognitive Psychology
- 1995 **M.S. in Statistics**, *Ewha Womans University*, Seoul, Korea.
- 1993 **B.A. in Statistics**, *Ewha Womans University*, Seoul, Korea.

Positions & Employment

- 2013–present **Professor**, *Department of Educational Psychology*, University of Wisconsin–Madison.
- 2009–present **Affiliated Faculty**, *Center for Health Enhancement Systems Studies*, College of Engineering, University of Wisconsin–Madison.

- 2006–present **Affiliated Faculty**, *Department of Population Health Sciences, School of Medicine, University of Wisconsin–Madison.*
- 2004–present **Program Faculty**, *Interdisciplinary Training Program in the Education Sciences, University of Wisconsin–Madison, Sponsored by the US Department of Education.*
- 2002–present **Training Faculty**, *Interdisciplinary Research Training in Speech and Language Disorders, University of Wisconsin–Madison, Sponsored by National Institutes of Health.*
- 2007–2013 **Associate Professor**, *Department of Educational Psychology, University of Wisconsin–Madison.*
- 2001–2007 **Assistant Professor**, *Department of Educational Psychology, University of Wisconsin–Madison.*
- 2000 **Visiting Research Associate**, *Faculty of Economics, University of Groningen, The Netherlands.*
- 1999 **Summer Intern**, *Measurement Research Department, ACT, Inc., Iowa.*
- 1998–2001 **Research Assistant**, *Department of Psychology, University of Illinois.*
- 1995–1998 **Teaching Assistant**, *Department of Psychology, University of Illinois.*
- 1993–1995 **Statistical Consultant**, *Methodology Center, Ewha Womans University, Korea.*
- 1993–1994 **Teaching Assistant**, *Department of Statistics, Ewha Womans University, Korea.*

Awards & Honors

- 2019 **Vilas Faculty Mid-Career Investigator Award**, *UW Office of the Provost.*
- 2004 **Fellow**, *National Academy of Education/Spencer Foundation.*
- 2002 **AERA Outstanding Dissertation Award for Quantitative Methodology**, *Mary Catherine Ellwein Memorial Award, Division D: Measurement & Research Methodology, American Educational Research Association.*
- 2000 **Research Scholarship**, *University of Groningen, The Netherlands.*

- 2000 **Outstanding Original Research Award**, *Department of Psychology*, Nancy Hirschberg Memorial Award, University of Illinois at Urbana–Champaign.
- 1999 **Graduate College Research Competition**, *University of Illinois at Urbana–Champaign*.
- 1998 **Incomplete List of Teachers Ranked as Excellent by Their Students**, *University of Illinois at Urbana–Champaign*.
- 1998 **National Archive of Computerized Data on Aging Fellowship**, *ICPSR*, Ann Arbor, MI.
- 1993, 1994 **Graduate School Fellowship**, *Ewha Womans University*, Seoul, Korea.
- 1991, 1992 **University Fellowship**, *Ewha Womans University*, Seoul, Korea.

Publications

*: advisee, student author, or postdoctoral researcher

- *Liao, X., Bolt, D. M., & Kim, J.-S. (2024). Curvilinearity in the Reference Composite and Practical Implications for Measurement. *Journal of Educational Measurement*. <https://doi.org/10.1111/jedm.12402>
- Kim, J.-S., *Liao, X., & Loh, W. W. (2024). Assessing Cross-Level Interactions in Clustered Data Using CATE Estimation Methods. *Quantitative Psychology*, 87–98. Springer.
- *Kim, H., & Kim, J.-S. (2024) Assessing the Effects of a Yearly Renewable Education Program Through Causal Mediation Analysis. *Quantitative Psychology*, 155-164. Springer.
- *Buhrman, G., *Liao, X., & Kim, J.-S. (2024). Exploring Conceptual Differences Among Nonparametric Estimators of Treatment Heterogeneity in the Context of Clustered Data. *Quantitative Psychology*, 261-274, Springer.
- Wiberg, M., Kim, J.-S., Hwang, H., Wu, H. & Sweet, T. (Eds.).(2024). *Quantitative Psychology: The 88th Annual Meeting of the Psychometric Society, Maryland, USA, 2023*. Proceedings in Mathematics & Statistics. Springer.
- Molfenter, T., Jacobson, N., Kim, J.-S., Horst, J., *Kim, H., Madden, L., ... & Knudsen, H. K. (2023). Building medication for opioid use disorder prescriber capacity during the opioid epidemic: Prescriber recruitment trends and methods. *Journal of Substance Use and Addiction Treatment*, 147. <https://doi:10.1016/j.josat.2023.208975>
- Molfenter, T., *Kim, H., Kim, J.-S., Kisicki, A., Knudsen, H.K., Horst, J., Brown, R., Madden, L.M., Toy, A., Haram, E., & Jacobson, N. (2023). Enhancing use of medications for opioid use disorder (MOUD) through external coaching.

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- Kim, J.-S., *Liao, X., & Loh, W. W. (2023). Comparing parametric and nonparametric methods for estimating CATE. *Quantitative Psychology*, 31–39. Springer.
- Loh, W. W., & Kim, J.-S. (2023). Causal models. In R. Tierney, F. Rizvi, and K. Ercikan (Eds.), *International encyclopedia of education*, 4th edition, Elsevier Ltd. <https://doi.org/10.1016/B978-0-12-818630-5.10078-8>
- Wiberg, M., Molenaar, D., González, J., Kim, J.-S., & Hwang, H. (Eds.).(2023). *Quantitative Psychology: The 87th Annual Meeting of the Psychometric Society, Bologna, Italy*. Proceedings in Mathematics & Statistics. Springer.
- *Lyu, W., Kim, J.-S., & *Suk, Y. (2023). Estimating heterogeneous treatment effects within latent class multilevel models: A Bayesian approach. *Journal of Educational and Behavioral Statistics*, 48, 3–36 . doi:10.3102/10769986221115446
- *Kim, H., & Kim, J.-S. (2022). Extending the actor-partner interdependence model to accommodate multivariate dyadic data using latent variables. *Psychological Methods*. Advance online publication. <https://doi.org/10.1037/met0000531>
- *Suk, Y., Steiner, P.M. , Kim, J.-S., & Kang, H. (2022). Regression discontinuity designs with an ordinal running variable: Evaluating the effects of extended time accommodations for English-language learners. *Journal of Educational and Behavioral Statistics*, 47, 459–484. doi:10.3102/10769986221090275
- *Loh, W. W., & Kim, J.-S. (2022). Evaluating sensitivity to classification uncertainty in latent subgroup effect analyses. *BMC Medical Research Methodology*, 22, 247. DOI:10.1186/s12874-022-01720-8
- Wiberg, M., Molenaar, D., González, J., Kim, J.-S., & Hwang, H. (Eds.).(2022). *Quantitative Psychology: The 86th Annual Meeting of the Psychometric Society, Virtual, 2021*. Proceedings in Mathematics & Statistics. Springer.
- *Suk, Y., Kim, J.-S., & Kang, H. (2021). Hybridizing machine learning methods and finite mixture models for estimating heterogeneous treatment effects in latent classes. *Journal of Educational and Behavioral Statistics*, 46, 323–347. <https://doi.org/10.3102%2F1076998620951983>
- *Kim, H., & Kim, J.-S. (2021). Where the choice of model leads us: An empirical comparison of dyadic data analysis frameworks. *Quantitative Psychology*, 439–451. New York: Springer.
- Knudsen, H.K., Brown, R., Jacobson, N., Horst, J., Kim, J.-S., *Kim, H., & Molfenter, T. (2021). Prescribers' satisfaction with delivering medications for opioid use disorder. *Substance Abuse, Treatment, Prevention, and Policy*, 16 <https://doi.org/10.1186/s13011-021-00413-7>
- Wiberg, M., Molenaar, D., González, J., Böckenholt, U., & Kim, J.-S. (Eds.).(2021). *Quantitative Psychology: The 85th Annual Meeting of the Psychometric Soci-*

- ety, Virtual, 2020. Proceedings in Mathematics & Statistics. Springer.
- White, V. M., Molfenter, T., Gustafson, D. H., Horst, J., Greller, R., Kim, J. S. & Toy, A. (2020). NIATx-TI versus typical product training on e-health technology implementation: a clustered randomized controlled trial study protocol. *Implementation Science*, 15, 1–12.
- Molfenter, T., Kim, J.-S. & Zehner, M. (2020). Increasing Engagement in Post-Withdrawal Management Services Through a Practice Bundle and Checklist. *Journal of Behavioral Health Services & Research*. <https://doi.org/10.1007/s11414-020-09700-w>
- *Kim, K., Kwekkeboom, K. L., & Kim, J.-S. (2020). How does art making work? Testing the hypothesized mechanisms of art making on pain experience, *Complementary Therapies in Clinical Practice*, 40, 1744–3881, <https://doi.org/10.1016/j.ctcp.2020.101200>.
- *Suk, Y., Kang, H., & Kim, J.-S.(2020). Random forests approach for causal inference with clustered observational data. *Multivariate Behavioral Research*. DOI:10.1080/00273171.2020.1808437.
- Wiberg, M., Molenaar, D., González, J., Böckenholt, U., & Kim, J.-S. (Eds.).(2020). Quantitative Psychology: The 84th Annual Meeting of the Psychometric Society, Santiago, Chile, 2019. Proceedings in Mathematics & Statistics. Springer.
- Kim, J.-S. & *Suk, Y. (2019). Specifying multilevel mixture selection models in propensity score analysis. In Wiberg, M., Culpepper, S., Janssen, R., González, J., & Molenaar, D (Eds.), *Quantitative Psychology* (pp. 279-291). New York, NY: Springer.
- *Suk, Y., & Kim, J.-S. (2019). Measuring the heterogeneity of treatment effects with multilevel observational data. In Wiberg, M., Culpepper, S., Janssen, R., González, J., & Molenaar, D (Eds.), *Quantitative Psychology* (pp. 265-277). New York, NY: Springer.
- Knudsen, H.K., Brown R., Jacobson, N., Horst, J., Kim, J.-S., Collier, E., Starr, S., Madden, L.M., Haram, E., & Molfenter, T. (2019). Pharmacotherapy, Resource Needs, and Physician Recruitment Practices in Substance Use Disorder Treatment Programs. *Journal of Addiction Medicine*, 13, :28–34. doi:10.1097/ADM.0000000000000441
- Molfenter, T., McCarty, D., Jacobson, N., Kim, J.-S., Starr, S., Zehner, M. (2019). The payer's role in addressing the opioid epidemic: It's more than money. *Journal of Substance Abuse Treatment*, 101,72–78. doi: 10.1016/j.jsat.2019.04.001.
- *Yavuz, S., *Forkner, M. R., Gnesdilow, D., *Tissenbaum, C.L.D., Kim, J.-S., & Puntambekar, S. (2019). Understanding the Effect of Group Variance on Learning, CSCL Proceedings, In K. Lund, G. Niccolai, E. Lavoué, C. Hmelo-Silver, G. Gweon, M. Baker (Eds). *A Wide Lens: Combining Embodied, Enactive, Extended, and Embedded Learning in Collaborative Settings: Proceedings of the13th International Conference on Computer Supported Collaborative Learn-*

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- Knudsen, H. K., Brown, R., Jacobson, N., Horst, J., Kim, J.-S., Collier, E., Starr, S., Madden, L. M., Haram, E., Toy, A., & Molfenter, T. (2019). Physicians' satisfaction with providing buprenorphine treatment. *Addiction Science & Clinical Practice, 14*, 1-7.
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- Knudsen, H. K., Brown, R., Jacobson, N., Horst, J., Kim, J.-S., Collier, E., Starr, S., & Molfenter, T. (2017). Pharmacotherapy, resource needs, and physician recruitment practices in substance use disorder treatment programs. *Journal of Addiction Medicine, 13*, 28–34. doi: 10.1097/ADM.0000000000000441.
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- *Sullivan, S, Gnesdilow, D, Puntambekar, S, & Kim, J.-S. (2017). Middle school students' learning of mechanics concepts through engagement in different sequences of physical and virtual experiments. *International Journal of Science Education, 39*, 1573–1600, doi: 10.1080/09500693.2017.1341668.
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- *Meyer, J. D., Koltyn, K.F., Stegner, A.J., Kim, J.S., & Cook, D.B. (2016). Brain derived neurotrophic factor is unrelated to acute exercise's antidepressant effect in depression. *Psychoneuroendocrinology, 74*, 286–294. doi: 10.1016/j.psyneuen.2016.09.022.
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- *Meyer, J. D., Koltyn, K.F., Stegner, A.J., Kim, J.-S., & Cook, D.B. (2016). Influence of exercise intensity for improving depressed mood in depression: A dose-response study. *Behavior Therapy*, 47, 527–537.
- Kim, J.-S., & Steiner, P. M. (2015). Multilevel propensity score methods for estimating causal effects: A latent class modeling strategy. *Quantitative Psychology Research*, 293–306.
- Molfenter, T., Sherbeck, C., Zehner, M., Quanbeck, A., McCarty, D., Kim, J.-S., & Starr, S. (2015). Implementing buprenorphine in addiction treatment: Payer and provider perspectives in Ohio. *Substance Abuse Treatment, Prevention, and Policy*. DOI 10.1186/s13011-015-0009-2.
- *Keller, B., Kim, J.-S., & Steiner, P. M. (2015). Neural networks for propensity score estimation: Simulation results and recommendations. *Quantitative Psychology Research*, 279–291.
- *Hall, C. E., Steiner, P. M., & Kim, J.-S. (2015). Doubly robust estimation of treatment effects from observational multilevel data. *Quantitative Psychology Research*, 321–340.
- Blanton, M., Stephens, A., Knuth, E., Gardiner, A. M., *Isler, I., & Kim, J.-S. (2015). Development of children's algebraic thinking: The impact of a comprehensive early algebra. *Journal for Research in Mathematics Education*, 46, 39–87.
- Bolt, D.M., *Yi L., & Kim, J.-S. (2014). Measurement and control of response styles using anchoring vignettes: A model based approach. *Psychological Methods*, 19, 528–541.
- *Ellingson, L.D., Koltyn, K.F., Kim, J.-S., & Cook, D.B. (2014). Does exercise induce hypoalgesia through conditioned pain modulation? *Psychophysiology*, 51, 267–276.
- Kim, J.-S., Anderson, C.J., & *Keller, B.S. (2013). Multilevel analysis of assessment data. In L. Rutkowski, M. von Davier, and D. Rutkowski (Eds.), *A handbook of international large-scale assessment: Background, technical issues, and methods of data analysis*. London: Chapman Hall/CRC Press, 389–424.
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and multiple ability estimation in the SEM framework: Maximum likelihood versus Bayesian estimation approaches. *Multivariate Behavioral Research*, 48, 563–591.

*Kover, S.T., Pierpont, E.I., Kim, J.-S., Brown, T.W., & Abbeduto, L. (2013). A neurodevelopmental perspective on the acquisition of nonverbal cognitive skills in adolescents with fragile X syndrome. *Developmental Neuropsychology*, 38, 445–460.

Molfenter, T.D., Kim, J.-S., Quanbeck, A., Patel-Porter, T., Starr, S., & McCarty, D. (2013). Testing use of payers to facilitate evidence-based practice adoption: Protocol for a cluster-randomized trial. *Implementation Science*, 8:50. DOI: 10.1186/1748-5908-8-50.

URL: <http://www.implementationscience.com/content/8/1/50>.

*Keller, B.S., Kim, J.-S., & Steiner, P.M. (2013). Data mining alternatives to logistic regression for propensity score estimation: Neural networks and support vector machines. *Multivariate Behavioral Research*, 48, 164.

Gustafson, D., Wise, M., Bhattacharya, A., Pulvermacher, A., Shanovich, K., Phillips, B., Lehman, E., Chinchilli, V., Hawkins, R., & Kim, J.-S. (2012). The effects of combining web-based e-health with telephone nurse case management for pediatric asthma control: A randomized controlled trial. *Journal of Medical Internet Research*, 14: e101. doi:10.2196/jmir.1964.

*Kim, S.-Y., & Kim, J.-S. (2012). Investigating stage-sequential growth mixture models with multiphase data. *Structural Equation Modeling*, 19, 293–319.

Steiner, P.M., Kim, J.-S., & Thoemmes, F. (2012). Matching strategies for observational multilevel data. In *Joint Statistical Meeting Proceedings, Social Statistics Section*, 5020–5032.

*Feldman, E., Kim, J.-S. & Elliott, S.N. (2011). The effects of accommodations on adolescents' self-efficacy and test performance. *Journal of Special Education*, 45, 77–88.

Kim, J.-S. (2010). *Within-subjects designs*. In N. J. Salkind (Ed.), *Encyclopedia of research design*. Sage.

Kim, J.-S., & Swoboda, C.M. (2010). Handling omitted variable bias in multilevel models: Model specification tests and robust estimation. In J.J. Hox & J.K. Roberts (Eds.), *Handbook of advanced multilevel analysis* (pp. 197–217). Taylor & Francis.

Fryback, D.G., Palta, M., Cherepanov, D., Bolt, D., M. & Kim, J.-S. (2010). Comparison of five health-related quality-of-life indexes using item response theory analysis. *Medical Decision Making*, 30, 5–15.

McDuffie, A.M., Abbeduto, L., Lewis, P., Kim, J.-S., *Kover, S.T., Weber, A., & Brown, W.T. (2010). Autism spectrum disorder in children and adolescents with fragile X syndrome: Within-syndrome differences and age-related changes. *American Journal on Intellectual and Developmental Disabilities*, 115, 307–326.

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- Kim, J.-S., & Frees, E.W. (2005). *Fixed effects estimation in multilevel models*. University of Wisconsin working paper.
- Bolt, D.M., & Kim, J.-S. (2005). Hierarchical item response theory modeling. In B.S. Everitt and D. C. Howell (Eds.), *Encyclopedia of statistics in behavioral science*. Vol 2 (pp. 805–810). Chichester, UK: John Wiley & Sons.
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Kim, J.-S., & Böckenholt, U. (2001). Latent ordinal Markov models of attitude change. In L.M. Collins & A.G. Sayer (Eds.), *New methods for the analysis of change* (pp. 411–413). Washington, DC: American Psychological Association.

Kim, J.-S., & Böckenholt, U. (2000). Modeling stage-sequential change in ordered categorical responses. *Psychological Methods*, 5, 380–400.

Kim, J.-S. (1999). Preference and preference change: Latent-class scaling models for the analysis of multiple choice items in a panel study. *Methods for Psychological Research*, 4, 56.

Conference Presentations

Kim, J.-S., Liao, X., Buhrman, G., & Loh, W. W. (2024, July). An overarching framework for examining diverse forms of heterogeneous causal effects. Paper presented at the *International Meeting of Psychometric Society*, Prague, Czech Republic.

Kim, H., & Kim, J.-S. (2024, July). Addressing clustered data structures in causal mediation analysis. Paper presented at the *International Meeting of Psychometric Society*, Prague, Czech Republic.

Buhrman, G, Liao, X., & Kim, J.-S. (2024, July). Monotonicity matters: Evaluating heterogeneous treatment effect estimation via nonparametric regression tree methods. Paper presented at the *International Meeting of Psychometric Society*, Prague, Czech Republic.

Molfenter, T., Ducharme, L., Stein, L., Belenko, S., Mitchell, S. G., Aalsma, M. C., Friedmann, P. D., Becan, J. E., Garner, B. R., Vechinski, J., Watson, D. P., Bouris, A., Claypool, E., Meng, L., Zhang, J., Kim, J.-S., & Elkington, K. (2023, December). Using the implementation strategy integrity framework (ISIF) to interpret, replicate, and improve D&I efforts in criminal-legal (CL) settings. Paper presented at the 16th Annual Conference on the Science of Dissemination and Implementation in Health, Crystal City, VA

Kim, J.-S., Liao, X., Loh, W., & Feagins, V. (2023, July). Nonparametric estimation of CATE with cluster-robust confidence bands. Paper presented at the *International Meeting of Psychometric Society*, College Park, MD.

Kim, H., & Kim, J.-S. (2023, July). A causal mediation framework for investigating treatment effects in longitudinal studies. Paper presented at the *International Meeting of the Psychometric Society*, College Park, MD.

- Liao, X., Bolt, D. M., & Kim, J.-S. (2023, July). Accommodating curvilinear unidimensional approximations to multidimensionality: IRT modeling implications. Paper presented at the *International Meeting of the Psychometric Society*, College Park, MD.
- Burhman, G., Liao, X., & Kim, J.-S. (2023, July). Utilizing cluster covariates to estimate treatment heterogeneity in multilevel data. Poster presented at the *International Meeting of the Psychometric Society*, College Park, MD.
- Kim, J.-S., Liao, X., & Loh, W. (2023, June). Multilevel Causal Machine Learning Methods for Evaluating Heterogeneous Effects in Education with the TIMSS Data. Poster presented at the *International Association for the Evaluation of Educational Achievement International Research Conferences (IEA IRC)*, Dublin, Ireland.
- Kim, H. & Kim, J.-S. (2023, June). Disentangling Longitudinal Treatment Effects by Regimes: A Comparison of Selection Bias Adjustment Approaches. Poster presented at the *Modern Modeling Methods Conference*, Storrs, CO.
- Kim, H. & Kim, J.-S. (2023, May). A Causal Mediation Framework for Decomposing Treatment Effects in Longitudinal Studies. Poster presented at the *American Causal Inference Conference*, Austin, TX.
- Kim, J.-S., Liao, X. & Loh, W. (2022, July). Multilevel X-learner: Meta-Learning for Causal Inference with Clustered Data. Paper presented at the *International Meeting of Psychometric Society*, Bologna, Italy.
- Liao, X., Bolt, D.M., Kim, J.-S. (2022, July). Matthew effects and metric distortions due measurement model misspecification. Paper presented at the *International Meeting of Psychometric Society*, Bologna, Italy.
- Liao, X., Bolt, D.M., Kim, J.-S. (2022, April). Matthew Effects in the Measurement of Growth: Reality or Methodological Artifact? Paper presented at the *National Council on Measurement in Education*, San Diego, CA.
- Suk, Y., Steiner, P. M., Kim, J.-S., & Kang, H. (2022, April). Regression discontinuity designs with an ordinal running variable: evaluating the effects of extended time accommodations for English language learners. Paper presented at the *American Educational Research Association*, San Diego, CA.
- Suk, Y., Steiner, P. M., Kim, J.-S., & Kang, H. (2021, September). Regression discontinuity designs with an ordinal running variable: Evaluating the effects of extended time accommodations for English language learners. Paper to be presented at the *Society for Research on Educational Effectiveness*, Arlington, VA.
- Kim, H., & Kim, J.-S. (2021, July). Extending the Actor Partner Interdependence Model for analyzing multivariate dyadic data with latent variables. Paper presented at the *International Meeting of Psychometric Society (Virtual Conference)*.
- Suk, Y., Steiner, P. M., Kim, J.-S., & Kang, H. (2021, July). Regression

- discontinuity designs with an ordinal running variable: evaluating the effects of extended time accommodations for English language learners. Paper presented at the *International Meeting of Psychometric Society* (Virtual Conference).
- Suk, Y., Steiner, P. M., & Kim, J.-S. (2020, September). Evaluating effects of extended time accommodations for NAEP: multiple control groups. Paper presented at the *National Council on Measurement in Education* (Virtual Conference).
- Kim, J.-S., & Lyu, W. (2020, July). Classification and Estimation of Heterogeneous Treatment Effects. Paper presented at the *International Meeting of Psychometric Society* (Virtual Conference).
- Kim, H., & Kim, J.-S. (2020, July). Challenges and strategies for investigating interdependence with dyadic data. Paper presented at the *International Meeting of Psychometric Society* (Virtual Conference).
- Suk, Y., Steiner, P. M., & Kim, J.-S. (2020, July). Evaluating the effects of extended time accommodations in observational studies. Paper presented at the *International Meeting of Psychometric Society* (Virtual Conference).
- Suk, Y., Kim, J.-S., & Kang, H. (2020, April). Remedying selection bias and omitted variable bias with multilevel observational data. Paper presented at the *American Educational Research Association*, San Francisco, CA. (Conference Canceled).
- Kim, J.-S., Suk, Y., & Kang, H. (2109, July). Hybrid random forests for estimating heterogeneous treatment effects. Paper presented at the *International Meeting of Psychometric Society*, Santiago, Chile.
- Suk, Y., Kim, J.-S., & Kang, H. (2109, July). Machine learning algorithms for causal inference with clustered observational data. Paper presented at the *International Meeting of Psychometric Society*, Santiago, Chile.
- Yavuz, S., Forkner, M. R., Gnesdilow, D., Tissenbaum, C.L.D., , Kim, J.-S., & Puntambekar, S. (2019, June). Understanding the Effect of Group Variance on Learning, Paper presented at the *International Conference on Computer Supported Collaborative Learning*, Lyon, France.
- Suk, Y., & Kim, J.-S. (2019, April). Measuring treatment effects using random forests with multilevel observational data. Paper presented at the *Annual Meeting of American Educational Research Association*, Toronto, Canada.
- Duff, M.C., Rigon, A., Kim, J.-S., Mutlu, B., & Turkstra, L. (2019, March). Individual differences in social perception and social communication in adults with moderate-severe traumatic brain injury. Poster presented in the *World Congress on Brain Injury*, Toronto, Canada.
- Kim, J.-S. & Suk, Y. (2018, July). Fixed versus random effects models for multilevel propensity score analysis. Paper presented at the *International Meeting of Psychometric Society*, New York, NY.
- Suk, Y. & Kim, J.-S. (2018, July). Measuring the heterogeneity of treatment

- effects with multilevel-observational data. Poster presented at the *International Meeting of Psychometric Society*, New York, NY.
- Suk, Y. & Kim, J.-S. (2018, April). Linear probability models as alternatives to logistic regression models for multilevel propensity score analysis. Paper presented at the *Annual Meeting of American Educational Research Association*, New York, NY.
- Kim, J.-S., Steiner, P. M., & Suk, Y. (2017, July). A unified framework of multilevel matching for causal inference with clustered observational data. Paper presented at the *International Meeting of Psychometric Society*, Zürich, Switzerland.
- Garbacz, S. A., Stormshak, E. A., McIntyre, L. L., & Kim, J.-S. (2016, December). Efficacy of the family check-up on children's emotional and behavior problems in early elementary school. Poster presented at the *Institute of Education Sciences Principal Investigators Meeting*, Washington, DC.
- Kim, J.-S., Lim, W.-C., & Steiner, P. M. (2016, July). Causal inference with observational multilevel data: Investigating selection and outcome heterogeneity. Paper presented at the *International Meeting of Psychometric Society*, Asheville, NC.
- Steiner, P. M., & Kim, J.-S. (2015, March). Estimating treatment effects via multilevel matching within homogeneous groups of clusters. Paper presented at *Society for Research on Educational Effectiveness*, Washington, DC.
- Kim, J.-S., & Steiner, P. M. (2014, July). Multilevel propensity score methods for estimating causal effects. Paper presented in *Contemporary Issues in Estimating Causal Effects Using Propensity Score Methods*. Symposium conducted at the *International Meeting of Psychometric Society*, Madison, WI.
- Hall, C., & Kim, J.-S. (2014, July). Doubly robust estimation of treatment effects from observational multilevel data. Paper presented in *Contemporary Issues in Estimating Causal Effects Using Propensity Score Methods*. Symposium conducted at the *International Meeting of Psychometric Society*, Madison, WI.
- Anderson, C. J., Kim, J.-S., & Keller, B. (2014, April). Multilevel modeling of categorical variables from international large-scale assessments. Paper presented at the *Annual Meeting of National Council on Measurement and Education*. Philadelphia, PA.
- Hall, C., Kim, J.-S., & Steiner, P. (2014, April). Matching strategies for observational data With multilevel structures. Paper presented at the *Annual Meeting of American Educational Research Association*. Philadelphia, PA.
- Steiner, P. M., Kim, J.-S., & Hall, C. (2013, May). Matching designs for observational studies with multilevel data. Paper presented at *Colloquium of the Institute for Policy Research*, Northwestern University, Evanston, IL.
- Kim, J.-S., Steiner, P. M., Hall, C., & Thoemmes, F. (2013, March). Within-cluster and across-cluster matching with observational multilevel data. In

Research Methods Symposium: Advances and Challenges in Propensity Score Matching. Symposium conducted at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Keller, B. S., Kim, J.-S., & Steiner, P. M. (2013, March). Alternatives to logistic regression for propensity score estimation: Neural networks, support vector machines and random forests. In *Research Methods Symposium: Advances and Challenges in Propensity Score Matching.* Symposium conducted at the Society for Research on Educational Effectiveness Spring Conference, Washington, DC.

Keller, B., Kim, J.-S., & Steiner, P. M. (2012, October). Neural networks and support vector machines as alternatives to logistic regression: Why and when? Presented at the *Annual Meeting of the Society for Multivariate Experimental Psychology*, Vancouver, BC, Canada.

Steiner, P. M., Kim, J.-S., & Thoemmes, F. (2012, August). Matching strategies for observational multilevel data. Paper presented at the *Joint Statistical Meeting of American Statistical Association*. San Diego, CA.

Kim, J.-S., & Swoboda, C.M. (2012, April). Strategies for imputing missing values in hierarchical data: Multilevel multiple imputation. Paper presented at the *Annual Meeting of American Educational Research Association*. Vancouver, Canada.

Swoboda, C.M., & Kim, J.-S. (2012, April). Using multilevel dependencies to improve estimation with missing data. Paper presented at the *Annual Meeting of American Educational Research Association*. Vancouver, CA.

Blanton, M., Knuth, E., Stephens, A., Gardiner, A., Isler, I., Marum, T., & Kim, J.-S. (2012, April). Shifts in children's algebra understanding using a learning progressions approach to early algebra. Paper presented at the *Annual Meeting of National Council of Teachers and Mathematics*, Philadelphia, PA.

Kim, J.-S., & Swoboda, C.M. (2010, July). Multilevel multiple imputation using R. Paper presented at the *International Meeting of the Psychometric Society*.

Kim, S.-Y., & Kim, J.-S. (2010, July). Investigating stage-sequential growth mixture models for multiphase longitudinal data. Poster presented at the *International Meeting of the Psychometric Society*.

Puntambekar, S., Hubscher, R., Kim, J.-S., Narayanan, N. H., & Rebello, N.S. (2010, June). Scaffolding Students' use of multiple representations for science learning. Poster presented at the *Institute of Education Sciences Research Conference*. National Harbor, MD.

Kim, J.-S., & Swoboda, C.M. (2010, April). Multiple imputation methods with multilevel data: Theory and an example. Paper presented at the *Annual Meeting of American Educational Research Association*. Denver, CO.

Swoboda, C.M., & Kim, J.-S. (2010, April). Multiple imputation methods with multilevel data: A simulation study. Poster presented at the *Annual Meeting of American Educational Research Association*. Denver, CO.

- Swoboda, C.M., & Kim, J.-S. (2009, April). Evaluating the effectiveness of texts for omitted variables while accommodating missing data. Paper presented at the *Annual Meeting of American Educational Research Association*. San Diego, CA.
- Abbeduto, L., Kover, S.T., Porter, E.K., Schroeder, S.M., Kim, J.-S., & Brown, W.T. (2009, October). Resolving misunderstandings: A longitudinal investigation of social language skills in males with fragile X syndrome. Poster presented at the annual meeting of the *Society for the Study of Behavioral Phenotypes*, Cambridge, England.
- Puntambekar, S., Hubscher, R., Kim, J.-S., Narayanan, N. H., & Rebello, N.S. (2009, June). Scaffolding Students' use of multiple representations for science learning. Poster presented at the *Institute of Education Sciences Research Conference*. Washington, DC.
- Kover, S.T., Abbeduto, L., Kim, J.-S., & Brown, W.T. (2009, April). Receptive vocabulary and syntax development in children and adolescents with fragile X syndrome. Poster presented at the biennial meeting of the *Society for Research in Child Development*, Denver, CO.
- Kover S.T., Abbeduto L., Kim J.-S., & Brown W.T. (2008, July) Change and stability in nonverbal cognitive abilities in girls and boys with fragile X syndrome. Poster presented at the *11th Biennial International Fragile X Conference of the National Fragile X Foundation*, St. Louis, MO.
- Kim, J.-S., Frees, E.W., & Swoboda, C.M. (2008, June). Multilevel Model Specification Tests Using the Generalized Methods of Moment (GMM) Estimation Techniques. Paper presented at the *International Meeting of the Psychometric Society*. Durham, NH.
- Richmond, E.K., Kover, S.T., Schroeder, S., Abbeduto, L., & Kim, J.-S. (2008, June). Nonword repetition and language development in children and adolescents with fragile X syndrome. Poster presented at the annual meeting of the *Symposium on Research in Child Language Disorders*, Madison, WI.
- Kover, S.T., Abbeduto, L., Kim, J.-S., & Brown, W.T. (2008, July). Change and stability in nonverbal cognitive abilities in girls and boys with fragile X syndrome. Poster presented at the 11th biennial *International Fragile X Conference of the National Fragile X Foundation*, St. Louis, MO.
- Swoboda, C.M., & Kim, J.-S. (2007, April). A study of omitted variable bias in multilevel models for the NELS:88 data. Paper presented at the *Annual Meeting of American Educational Research Association*. Chicago, IL.
- Kim, J.-S. & Bolt, D.M. (2007, October). Use of nonlinear principal components analysis to understand scaling properties of the EQ-5DI, HUI2, HUI3, QWB-SA and SF-6D. Paper presented at the 14th *Annual Conference of the International Society of Quality of Life Research*, Toronto, ON, Canada.
- Abbeduto, L., Murphy, M. M, Kover, S., Giles, N.D., Amman, A., Karadottir,

- S., Bruno, L., Kim, J.-S., Schroeder, S., Anderson, J.A., & Nollin, K. (2006, October). Collaborating to resolve misunderstandings: An investigation of language skills in youth with fragile X syndrome. Presented at the *Annual Meeting of the Society for the Study of Behavioral Phenotypes*, Dublin, Ireland.
- Kim, J.-S. (2006, April). Investigating omitted student and school characteristics in multi-level models. Presented at a symposium on *Emerging Scholars and Scholarship in Education Research: AERA, NAE, APA and IES Postdoctoral Fellows and Their Work*. San Francisco, CA.
- Kim, J.-S., & Frees, E.W. (2006, April). Multilevel modeling with endogenous explanatory variables. Paper presented at the *Annual Meeting of American Educational Research Association*. San Francisco, CA.
- Kim, J.-S. (2006, April). Using the distractor categories of multiple-choice items to improve IRT linking. Paper presented at the *Annual Meeting of the National Council on Measurement and Education*. San Francisco, CA.
- Kim, J.-S. (2005, July). Omitted variables in multilevel models. Paper presented at the *International Meeting of the Psychometric Society*, Tilburg, The Netherlands.
- Kim, J.-S., & Frees, E.W. (2005, April). An investigation of omitted variable bias in school effectiveness research. Paper presented at the *Annual Meeting of American Educational Research Association*. Montreal, Canada.
- Suh, Y.-S., Bolt, D.M., & Kim, J.-S. (2005, April). Using random effects modeling to address attribute heterogeneity in cognitive diagnosis. Paper presented at the *National Council of Educational Measurement*. Montreal, Canada.
- Kim, J.-S., & Vermunt, J.K. (2004, June). A family of longitudinal association models with latent variables. Paper presented at the *International Meeting of the Psychometric Society*. Monterey, CA.
- Kim, J.-S. (2004, April). Robust estimation in the presence of omitted variables: Multilevel modeling techniques. Paper presented at the *Annual Meeting of American Educational Research Association*. San Diego, CA.
- Kim, J.-S., & Bolt, D.M. (2003, July). Application of a mixture logistic regression model with random effects. Paper presented at the *Annual Meeting of International Psychometric Society Meeting*. Sardinia, Italy.
- Bolt, D.M., Mroch, A.A., & Kim, J.-S. (2003, April). An empirical investigation of the hybrid IRT model for improving item parameter estimation in speeded tests. Paper presented at the *Annual Meeting of American Educational Research Association*. Chicago, IL.
- Kim, J.-S. (2002, July). Extensions of unfolding models for longitudinal data. Paper presented in the *Annual Meeting of the Classification Society of North America*, Madison, WI.
- Kim, J.-S. (2001, April). Analyzing continuous and discontinuous change

processes by latent variable models: A complementary perspective. Paper presented at the *Annual Meeting of American Educational Research Association*, Seattle, WA.

Kim, J.-S., & Hanson, B.A. (2000, April). Test equating under the multiple-choice model. Paper presented at the *Annual Meeting of American Educational Research Association*, New Orleans, LA.

Kim, J.-S. (1999, July). A family of latent-class scaling models: Visualization and modeling of categorical longitudinal data. In *Recent Advances in Probabilistic Choice Models*. Symposium conducted at the *European Meeting of the Psychometric Society*, Lüneberg, Germany.

Kim, J.-S., & Böckenholt, U. (1998, October). How attitudes toward alcohol vary over time: Insights from latent Markov and multilevel regression models. Presented at the meeting of *New Methods for the Analysis of Change*, Penn State University, State College, PA.

Kim, J.-S. (1998, June). Analyzing change in longitudinal ordinal data with latent Markov and multilevel regression models. In *Multistate and Multitrait Models*. Symposium conducted at the *Joint Annual Meeting of the Psychometric Society and the Classification Society of North America*, Urbana, IL.

Invited Talks

Prediction, Omitted Variables, and Generalized Method of Moments Estimator with Multilevel Data (2018, October). Statistics in Insurance Workshop, Wisconsin School of Business, Madison, WI.

Causal inference with observational multilevel data: Challenges & Strategies (2015, July). International Meeting of Psychometric Society, Beijing, China.

Multilevel propensity score methods for estimating causal effects (2014, November). Advances in Multilevel Modeling for Educational Research: Addressing Practical Issues Found in Real-World Applications. University of Maryland. College Park, MD.

Integrative data analysis using multilevel modeling (2011, May). Integrative Data Analysis: Conceptual Issues and Applied Examples. Association for Psychological Science (APS)–Society of Multivariate Experimental Psychology (SMEP) Methodological Workshop Series. Washington DC.

Handling omitted variable bias in the analysis of educational data: Diagnostics and remedies using multilevel modeling techniques (2008, May). School of Education. University of Wisconsin.

Comments on the issues school accountability ratings and rankings (2008, April). National Conference on Value-Added Modeling. University of Wisconsin-Madison.

Classification and clustering analysis (2006, April). Department of Educational

Psychology. University of Wisconsin–Madison.

Latent growth models for the analysis of longitudinal data (2006, February). Department of Educational Psychology. University of Wisconsin–Madison.

Multilevel models for school effectiveness studies: The effects of omitted variables in educational research (2006, February). Interdisciplinary Training Program in the Education Sciences, Madison, WI.

Testing the impact of unobserved student and school characteristics and obtaining robust estimators in multilevel models (2005, October). *Annual Retreat of National Academy of Education*. Columbia University, NY.

Introduction to HLM: Applications in the social sciences (2005, July). Annual Meeting of the Symposium for Research on Child Language Disorders, Madison, WI.

Latent class regression models for tobacco intervention programs (2004, November). Department of Biostatistics and Medical Informatics, University of Wisconsin–Madison.

Fitting piecewise linear growth models using HLM (2003, March). Department of Psychology, University of Wisconsin–Madison.

Modeling individual variability with repeated measures data (2002, March). Waisman Center, Madison, WI.

Testing stage-sequential theories in the social and behavioral sciences (2000, December). Department of Psychology, University of Illinois at Urbana–Champaign.

Visualization and modeling of categorical longitudinal data (2000, November). School of Economic Sciences, University of Groningen, The Netherlands.

Test equating under the multiple-choice model (1999, July). ACT, Inc., Iowa City, IA.

Courses Taught

2001–present **Instructor, University of Wisconsin–Madison.**

Ed Psych 711: (special topic) Longitudinal Data Analysis

Ed Psych 711: (special topic) Advanced Topics in Latent Variable Models

Ed Psych 760: Statistical Methods Applied to Education I

Ed Psych 761: Statistical Methods Applied to Education II

Ed Psych 762: Experimental Design and Causal Inference

Ed Psych 763: Regression Models

Ed Psych 964: Hierarchical Linear Modeling

Ed Psych 990: Research or Thesis

Ed Psych 999: Independent Reading

1995–1998 **TA, University of Illinois at Urbana–Champaign.**

PSYCH 306: Techniques in Applied Statistics Used in Psychological Research I

PSYCH 307: Techniques in Applied Statistics Used in Psychological Research II

PSYCH 390: Laboratory in Psychological Measurement and Test Development

1993–1994 **TA, Ewha Womans University, Seoul, Korea.**

STAT 20636: Multivariate Analysis

STAT 30217: Mathematical Statistics I

STAT 30218: Mathematical Statistics II

University Service at Wisconsin

University of Wisconsin

Research Technology Advisory Group (2016–22)

Faculty Fellowships and Awards Committee in the Social Sciences (2017–21)

Research Committee in the Social Sciences (2018–21)

Cybersecurity Policy Working Group (2016–18)

Faculty Senate (2009–10)

Faculty Senate Alternate (2002–05, 2006–09)

School of Education

Global Education Committee (2014–15)

Education Research Institutional Review Board (2011–13)

Facilities Committee (2002–06)

Programs Committee Alternate (2002–03, 2004–05)

Department of Educational Psychology

Diversity and Inclusion Association (2020–present)

Prevention, Intervention, and Enhancement (PIE) Scholar Program (2019–present)

Faculty and Staff Honors Committee (2011–14, 2021–present Chair: 2013–14, 2024–present)

Recruitment, Admission, Fellowships, & Awards Committees (2002–06, 2016–21)

Faculty Review Committee (2014–15, 2018–19)

Election Committee (Chair: 2016–17)

Student Affairs Committee (2003–04; 2012–13)

Faculty Affairs Committee (2008–12, Chair: 2010–12)

Faculty Search Committee, Learning Sciences (2022–23)

Faculty Search Committee, School Psychology (2017–18)

Faculty Search Committee, Human Development (2011–12)

Faculty Search Committees, Quantitative Methods (2005–07, 2008–10, 2019–20, Chair: 2009–10)

Professional Service

Editorial Service

- 2015–present **Psychometrika**, *Associate Editor*.
- 2019–present **International Meeting of the Psychometric Society**, *Proceedings Editor*.
- 2015–2020 **Psychological Methods**, *Associate Editor*.
- 2010–2015 **Frontiers in Quantitative Psychology and Measurement**, *Review Editor*.
- 2011–2015 **Psychological Methods**, *Consulting Editor*.
- 2009–2015 **Psychometrika**, *Book Review Editor*.
- 2010–2014 **Educational Measurement: Issues and Practice**, *Advisory Board Member*.
- 2008–2014 **American Journal on Intellectual and Developmental Disabilities**, *Consulting Editor*.

Grant Proposal Review Panels

- 2020–present **Principal Panel Member, Basic Processes**, *Institute of Education Sciences*, US Department of Education.
- 2016–2020 **Principal Panel Member, Social and Behavioral Studies**, *Institute of Education Sciences*, US Department of Education.
- 2016 **External Referee**, *European Research Council*.
- 2016 **Social and Behavioral Context for Academic Learning**, *Institute of Education Sciences*.
- 2015 **External Referee**, *Economic & Social Research Council*, UK.
- 2015 **Research and Development Virtual Learning Centers**, *Institute of Education Sciences*.
- 2011–2014 **Principal Panel Member, Statistics and Modeling**, *Institute of Education Sciences*.
- 2012 **Improving Educational Systems**, *Institute of Education Sciences*.
- 2011 **Research and Evaluation on Education in Science and Engineering (REESE)**, *National Science Foundation (NSF)*.
- 2011 **Educational Systems and Broad Reform**, *Institute of Education Sciences*.
- 2010 **Basic Processes**, *Institute of Education Sciences*.

2010 **Statistics and Modeling**, *Institute of Education Sciences*.

Committees & Panels

- 2022 **Data Challenge Judge**, *IMPS Datathon*, Psychometric Society.
- 2017–2019 **Program Committee**, *Psychometric Society*.
- 2018 **Panel on Significance Reporting**, *National Center for Education Statistics / National Institute of Statistical Sciences*.
- 2013–2018 **Editorial Council**, *Psychometric Society*.
- 2014 **Award Review Committee**, *National Council on Measurement in Education (NCME)*.
- 2009–2012 **Jason Millman Award for Promising Measurement Scholar**, *NCME*, Chair: 2011–12.
- 2009–2011 **Nominating Committee**, *Korean American Educational Researchers Association*.
- 2009 **Division D Conference Program Committee**, *American Educational Research Association (AERA)*.
- 2004–2007 **Bradley Hanson Award for Outstanding Contribution in Educational Measurement**, *NCME*, Chair: 2006–07.

Reviews

- 1998–present **Journal Manuscripts**, *Psychometrika*, *Psychological Methods*, *Journal of Educational and Behavioral Statistics*, *Journal of Educational Measurement*, *Applied Psychological Measurement*, *Educational Measurement: Issues and Practice*, *Educational Psychologist*, *Sociological Methodology*, *Sociological Methods and Research*, *International Journal of Testing*, *Methodology: European Journal of Research Methods for the Behavioral Sciences*, *Asian Pacific Journal of Education*, *Rehabilitation Psychology*, *American Association on Intellectual and Developmental Disabilities*, *Frontiers in Quantitative Psychology and Measurement*, *Statistics in Medicine*.
- 1998–present **Conference proposals**, *International Meeting of the Psychometric Society (IMPS)*, *AERA*, *NCME*, *Society for Research on Educational Effectiveness (SREE)*.
- 2009 **Book Proposal**, *Springer*.
- 2003 **Book Proposal**, *American Psychological Association (APA)*.
- 2002 **Grant Proposal**, *NSF*.

Other Service

- 2014–2018 **Mentor**, *Chancellor's Scholarship Program*, UW-Madison.
2014–2018 **Mentor**, *Pathway to Independence Award*, NIH.
2011 **Panelist**, *National Academy of Education/Spencer Fellows Retreat*.
2009, 2010 **Mentor**, *Division C New Faculty Mentoring Program*, AERA.
2008 **Discussant**, *National Conference on Value-Added Modeling*.

Research Support

Current

- 9/01/18–
6/30/24 **Testing of a Patient-Centered e-Health Implementation Model in Addiction Treatment**, *National Institutes of Health/National Institute on Alcohol Abuse and Alcoholism*, \$2.5M, PI: Todd Molfenter, University of Wisconsin–Madison, Role: Co-Investigator.
- 8/01/20–
7/31/24 **Addressing Emergency Certification in Rural Education Settings (ACRES)**, *Institute of Educational Sciences, US Department of Education*, \$1.4M, PI: Kimber Wilkerson, University of Wisconsin–Madison, Role: Co-Investigator.
- 7/01/21–
6/30/26 **Project EXPRESS: EXamining interventions to PRomote Executive functioning and Social Skills**, *Institute of Educational Sciences, US Department of Education*, \$3.8M, PI: Jessica Dykstra Steinbrenner, University of North Carolina at Chapel Hill, Role: Co-Investigator.

Completed

- 10/01/01–
9/30/03 **Families and Schools Together Project: Building Relationships**, *Bureau of Justice Assistance, U.S. Department of Justice*, PI: Lynn McDonald, Wisconsin Center for Education Research, Role: Co-Investigator.
- 6/01/03–
7/31/03 **Unified Procedure for Optimal Prediction in Hierarchical Linear Models**, *Wisconsin Alumni Research Foundation*, Role: Principal Investigator.
- 6/01/04–
12/31/04 **Robust Estimation in the Presence of Omitted Variables: Multilevel Modeling Techniques**, *Wisconsin Alumni Research Foundation*, Role: Principal Investigator.

- 4/01/04–3/31/08 **Norms and Performance Comparisons for Five Health Indexes**, *NIH/DHHS/NIA P01 AG20679*, \$6,935,693, PI: Dennis Fryback, University of Wisconsin–Madison, Role: Co-Investigator.
- 4/05/04–3/31/09 **Language Development and Fragile X Syndrome**, *National Institutes of Health/National Institute of Child Health and Human Development*, \$2,110,302, PI: Leonard Abbeduto, Waisman Center, University of Wisconsin–Madison, Role: Co-Investigator.
- 8/28/04–8/28/07 **Nonlinear and multilevel longitudinal and panel data**, *National Science Foundation, Social and Economic Sciences*, PI: Edward W. Frees, University of Wisconsin–Madison, Role: Co-Investigator.
- 9/01/04–8/31/06 **Testing the Impact of Omitted School Variables in Hierarchical Linear Models and Obtaining Robust Statistical Estimators**, *National Academy of Education/Spencer Foundation*, Role: Principal Investigator.
- 9/01/04–8/31/09 **CoMPASS: Integrating Digital Text in Design-based Science Classrooms**, *National Science Foundation/Interagency Education Research Initiative, R01 0437660*, \$1,900,000, PI: Sadhana Puntambekar, Wisconsin Center for Education Research, Role: Co-Investigator.
- 9/01/08–8/31/11 **Scaffolding Students' Use of Multiple Representations for Science Learning**, *Institute of Education Sciences, The US Department of Education*, \$1,453,848, PI: Sadhana Puntambekar, Wisconsin Center for Education Research, Role: Co-PI.
- 10/01/08–9/30/13 **Using Technology to Enhance Cancer Communication and Improve Clinical Outcomes**, *National Institutes of Health/National Cancer Institute, P50 CA095817*, \$8,649,891, PI: David H. Gustafson, University of Wisconsin–Madison, Role: Co-Investigator.
- 6/01/11–5/31/17 **Active Aging Research Center–Bringing Communities and Technology Together for Healthy Aging**, *Agency for Healthcare Research and Quality, P50HS019917*, \$9,952,788, PIs: David H. Gustafson & Dhavan Shah, University of Wisconsin–Madison, Role: Co-Investigator.
- 9/01/11–8/31/13 **Discovery Research K-12: Developing Algebra-Ready Students for Middle School: Exploring the Impact of Early Algebra**, *National Science Foundation*, \$1,097,749, PI: Maria Blanton, University of Massachusetts Dartmouth & Eric Knuth, University of Wisconsin–Madison, Role: Co-Investigator.

- 9/01/11–8/31/14 **Implementing CHES e-Health Breast Cancer Support in Population-Based Care**, *National Institutes of Health/National Cancer Institute*, \$526,494, PI: Robert P. Hawkins, University of Wisconsin-Madison, Role: Co-Investigator.
- 2/20/12–1/31/17 **Language Development in Fragile X Syndrome**, *National Institutes of Health/National Institute of Child Health and Human Development*, R01 HD204356, \$2,600,000, PI: Leonard Abbeduto, University of California MIND Institute, Role: Co-Investigator.
- 3/01/12–2/29/18 **To Test A Payer/Treatment Agency Intervention to Increase Use of Buprenorphine**, *National Institutes of Health/National Institute on Drug Abuse* R01 DA030431, \$2,986,128, PI: Todd Molfenter, University of Wisconsin-Madison, Role: Co-Investigator.
- 7/01/12–6/30/16 **Matching Strategies for Observational Studies with Multilevel Data in Educational Research**, *Institute of Education Sciences, The US Department of Education*, \$588,028, PI: Peter Steiner, University of Wisconsin-Madison, Role: Co-PI.
- 8/01/12–7/31/17 **Social perception and social communication in adults with traumatic brain injury**, *NIH 5R01HD071089-02*, \$2,787,779, PI: Lyn Turkstra, University of Wisconsin-Madison, Role: Co-Investigator.
- 10/01/12–9/30/17 **Collaborative Research: The Impact of Early Algebra on Students' Algebra-Readiness**, *National Science Foundation*, \$939,935, PIs: Maria Blanton, TERC, Inc. & Eric Knuth, University of Wisconsin-Madison, Role: Co-Investigator.
- 3/01/13–2/28/18 **Brain Mechanisms Mediating Genetic Risk Factors for Anxiety and Depression**, *NIH R01MH081884-06*, \$4,192,636, PI: Ned Kalin, University of Wisconsin School of Medicine, Role: Co-Investigator.
- 7/01/14–6/30/18 **The Impact of a Teacher-Led Early Algebra Intervention on Children's Algebra-Readiness for Middle School**, *Institute of Education Sciences, The US Department of Education*, R305A140092, \$3,475,975, PIs: Maria Blanton, TERC, Inc. & Eric Knuth, University of Wisconsin-Madison, Role: Co-Investigator.

- 7/01/12–12/31/18 **Center on Secondary Education for Students with Autism Spectrum Disorders (CSESA)**, *IES R324C120006*, \$9,994,452, PIs: Kara Hume & Sam Odom, University of North Carolina-Chapel Hill, Role: Co-Investigator.
- 6/01/13–12/31/18 **Connecting Mathematical Ideas through Animated Multimodal Instruction**, *Institute of Education Sciences, The US Department of Education*, \$1,599,991, PI: Martha Alibali, University of Wisconsin–Madison, Role: Co-Investigator.
- 9/01/14–8/31/21 **Science Inquiry Using Physical and Virtual Experiments: Systematic Investigation of Issues and Conditions for Learning**, *NSF 1431904*, \$1,464,256, PI: Sadhana Puntambekar. Wisconsin Center for Education Research, Role: Co-PI.
- 9/01/14–8/31/21 **Bio-Sphere: Fostering Deep Learning of Complex Biology for Building Our Next Generation’s Scientists**, *NSF 1418044*, \$2,798,985, PI: Sadhana Puntambekar. Wisconsin Center for Education Research, Role: Co-PI.
- 7/01/18–6/30/22 **Efficacy Follow-Up Study of the CSESA Model**, *\$1,100,000*, PIs: Kara Hume & Sam Odom, University of North Carolina-Chapel Hill, Role: Co-Investigator.
- 4/01/16–12/31/22 **Test of a Workforce Development Intervention to Expand Buprenorphine Prescribers**, *National Institutes of Health/National Institute on Drug Abuse*, \$3.7M, PI: Todd Molfenter, University of Wisconsin–Madison, Role: Co-PI.
- 6/15/19–3/31/24 **Justice Community Opioid Innovation Network (JCOIN) Coordination and Translation Center**, *National Institutes of Health/National Institute on Drug Abuse*, \$15M, PI: Faye Taxman, George Mason University, Role: Co-Investigator.