# JAMES E. PUSTEJOVSKY

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### **EDUCATION**

2013 Ph.D., Northwestern University, Department of Statistics.

2003 B.A., Boston College. Major in Economics, minor in German.

#### PROFESSIONAL EXPERIENCE

2020-present University of Wisconsin - Madison, Madison, WI

Associate Professor, Department of Educational Psychology

Quantitative Methods Program

2013-2020 University of Texas at Austin, Austin, TX

Assistant Professor, Department of Educational Psychology

Quantitative Methods Program

2006-2008 Northwestern University, Evanston, IL

Research Analyst, Distributed Leadership Studies

2003-2006 Analysis Group, Boston, MA

Analyst/Senior Analyst

#### **HONORS AND AWARDS**

2021 Early Career Award

Society for Research Synthesis Methodology

2016-present Member, Society for Research Synthesis Methodology

2014 Outstanding Quantitative Dissertation

Division D (Measurement and Research Methodology) of the American Educational

Research Association

2009-2012 Multidisciplinary Program in Educational Sciences Fellowship,

Northwestern University

#### **FUNDING**

Treatment Intensity Factors Related to Efficient and Effective Communication Intervention for Individuals with ASD and Complex Communication Needs (R324A210238)

Institute of Education Sciences, Reading, Writing, and Language Program

Status: Funded

Role: Co-PI (PI: Jay B. Ganz, Texas A&M University; Co-PIs: Joe Reichle, University of

Minnesota)

Total funding: \$1,087,174 (UW-Madison sub-award: \$168,853)

Duration: Sep. 1, 2021 – Aug. 31, 2024

Improving the Accessibility of Effect Size and Synthesis Methods for Single-Case Research (R324U190002)

Institute of Education Sciences, Unsolicited Grant Opportunity

Status: In progress

Role: Co-PI (PI: Wendy Machalicek, University of Oregon; Co-PI: John Ferron, University of

South Florida)

Total funding: \$600,000 (UT Austin sub-award: \$328,516)

Duration: Jan. 1, 2020 – Dec. 31, 2022

Bayesian Analysis of Academic Outcomes from Single-Case Experimental Designs (R305D190023) Institute of Education Sciences, Statistical and Research Methodology in Education Program Status: In progress

Role: Co-PI (PI: Ethan Van Norman, Lehigh University; Co-PI: David Klingbeil, UT Austin)

Total funding: \$899,769 (UT Austin sub-award: \$432,259)

Duration: Jul. 1, 2019 – June. 30, 2022

Meta-Analyses of Variables Related to Instruction in Augmentative and Alternative Communication *Implementation* (R324A180110)

Institute of Education Sciences, Technology for Special Education Program

Status: In progress

Role: Co-PI (PI: Jennifer B. Ganz, Texas A&M University; Co-PIs: Kimberly Vannest, Texas

A&M University, Joe Reichle, University of Minnesota) Total funding: \$600,000 (UT Austin sub-award: \$83,646)

Duration: Sep. 1, 2018 – Aug. 31, 2021

Evaluating the Transition to College Mathematics Course in Texas High Schools

Greater Texas Foundation, Greater Texas Foundation Faculty Fellows program

Status: Completed

Role: PI

Total funding: \$87,337

Duration: Aug. 1, 2017 – Jul. 31, 2020

Response Ratio Effect Sizes for Single-Case Designs with Behavioral Outcome Measures (R305D160002)

Institute of Education Sciences, Statistical and Research Methodology in Education Program

Status: Completed

Role: PI

Total funding: \$199,690

Duration: Aug. 1, 2016 – Jul. 31, 2018

## **ARTICLES** (italics indicate student author)

Ganz, J. B., Pustejovsky, J. E., Reichle, J., Vannest, K., Foster, M., Fuller, M., Pierson, L. M., Wattanawongwan, S., Bernal, A., Chen, Haas, A. N., Skov, R., Smith, S. D., & Yllades, V. (In Press). Augmentative and Alternative Communication intervention targets for school-aged participants with ASD and ID: A single-case systematic review and meta-analysis. Review *Journal of Autism and Developmental Disorders*, forthcoming.

Pre-print: <a href="https://edarxiv.org/yx5au">https://edarxiv.org/yx5au</a>

Ganz, J., Pustejovsky, J. E., Reichle, J., Vannest, K., Foster, M., Pierson, L., Wattanawongwan, S., Bernal, A., Chen, M., Haas, A., Sallese, M. R., Skov, R., & Smith, S. D. (In Press). Participant characteristics predicting communication outcomes in AAC implementation for individuals with ASD and IDD: Meta-analysis. Augmentative and Alternative Communication, forthcoming. Pre-print: https://edarxiv.org/6sgba/

Chen, M., & Pustejovsky, J. E. (In Press). Multi-level meta-analysis of single-case experimental designs using robust variance estimation. Psychological Methods, forthcoming. https://doi.org/10.1037/met0000510

Pre-print: https://psyarxiv.com/59h32/

Ganz, J., Pustejovsky, J. E., Reichle, J., Vannest, K., Pierson, L., Wattanawongwan, S., Foster, M., Fuller, M., Haas, A., Sallese, M., Smith, S. D., & Yllades, V. (In Press). A case for increased rigor in AAC research: A methodological quality review. Education and Training in Autism and Developmental Disabilities, forthcoming.

Pre-print: https://edarxiv.org/9qnfp

Ganz, J. B., Pustejovsky, J. E., Reichle, J., Vannest, K., Foster, M., Haas, A., Pierson, L. M., Wattanawongwan, S., Bernal, A., Chen, M., Skov, R., & Smith, S. D. (In Press). Considering instructional contexts in AAC interventions for people with ASD and/or IDD experiencing complex communication needs: A single case design meta-analysis. Review Journal of Autism and Developmental Disorders, forthcoming. https://doi.org/10.1007/s40489-022-00314-w Pre-print: <a href="https://edarxiv.org/xhqb3">https://edarxiv.org/xhqb3</a>

Joshi, M., Pustejovsky, J. E., & Beretvas, S. N. (In Press). Cluster wild bootstrapping to handle dependent effect sizes in meta-analysis with a small number of studies. Research Synthesis Methods, forthcoming. https://doi.org/10.1002/jrsm.1554 Pre-print: <a href="https://osf.io/preprints/metaarxiv/x6uhk">https://osf.io/preprints/metaarxiv/x6uhk</a>

Austin, C. R., Vaughn, S., Clemens, N. H., **Pustejovsky, J. E.**, & Boucher, A. N. (In Press). The relative effects of integrating word reading and word meaning instruction to word reading instruction alone on the accuracy, fluency, and word meaning knowledge of 4th-5th grade students with dyslexia. Scientific Studies of Reading, forthcoming. https://doi.org/10.1080/10888438.2021.1947294

Ledford, J. R., & Pustejovsky, J. E. (In Press). Systematic review and meta-analysis of stayplay-talk interventions for improving social behaviors of young children. Journal of Positive Behavior Interventions, forthcoming. https://doi.org/10.1177/1098300720983521 Pre-print: https://osf.io/u7cph/

**Pustejovsky, J. E.**, Swan, D. M., & English, K. E. (In Press). An examination of measurement procedures and characteristics of baseline outcome data in single-case research. Behavior Modification, forthcoming. https://doi.org/10.1177/0145445519864264 Pre-print: https://doi.org/10.31234/osf.io/dv9jg

**Pustejovsky**, J. E., & Tipton, E. (2022). Meta-analysis with robust variance estimation: Expanding the range of working models. Prevention Science 23, 425-438. https://doi.org/10.1007/s11121-021-01246-3

Pre-print: https://osf.io/preprints/metaarxiv/vyfcj/

Wahman, C. L., Pustejovsky, J. E., Ostrosky, M. M., & Santos, R. M. (2022). Examining the effects of social stories on challenging behavior and prosocial skills in young children: A systematic review and meta-analysis. Topics in Early Childhood Special Education, 41(4), 267-279. https://doi.org/10.1177/0271121419855692 Pre-print: https://doi.org/10.31234/osf.io/fch6t

Rodgers, M. A. & Pustejovsky, J. E. (2021). Evaluating meta-analytic methods to detect selective reporting in the presence of dependent effect sizes. Psychological Methods, 26(2), 141-160. https://doi.org/10.1037/met0000300 Pre-print: https://doi.org/10.31222/osf.io/vqp8u

McLouth, L. E., Ford, C. G., Pustejovsky, J. E., Park, C. L., Sherman, A. C., Trevino, K., & Salsman, J. M. (2021). A systematic review and meta-analysis of effects of psychosocial interventions on spiritual well-being in adults with cancer. Psycho-Oncology, 30(2), 147-158. https://doi.org/10.1002/pon.5562

Swan, D. M., Pustejovsky, J. E., & Beretvas, S. N. (2020). The impact of response-guided designs on count outcomes in single-case experimental design baselines. Evidence-Based Communication Assessment and Intervention, 14(1-2), 82-107. https://doi.org/10.1080/17489539.2020.1739048

Salsman, J.M., Pustejovsky, J.E., Schueller, S.M., Hernandez, R., Berendsen, M., Steffen, L.E. & Moskowitz, J.T. (2019). Psychosocial interventions for cancer survivors: A meta-analysis of effects on positive affect. *Journal of Cancer Survivorship*, 13, 943-955. https://doi.org/10.1007/s11764-019-00811-8

Merluzzi, T.V., **Pustejovsky, J.E.**, Philip, E.J., Sohl, S. J., Berendsen, M., & Salsman, J.M. (2019). Interventions to enhance self-efficacy in cancer patients: A meta-analysis of randomized controlled trials. Psycho-Oncology, 28(9), 1781-1790. https://doi.org/10.1002/pon.5148

Park, C.L., Pustejovsky, J. E., Trevino, K., Sherman, A., Esposito, C., Berendsen, M., & Salsman, J.M. (2019). Effects of psychosocial interventions on meaning and purpose in adults with cancer: A systematic review and meta-analysis. Cancer, 125(14), 2383-2393. https://doi.org/10.1002/cncr.32078

Tipton, E., **Pustejovsky**, J. E., & *Ahmadi*, H. (2019). A history of meta-regression: Technical, conceptual, and practical developments between 1974 and 2018. Research Synthesis Methods, 10(2), 161-179. https://doi.org/10.1002/jrsm.1338 Pre-print: <a href="https://doi.org/10.31234/osf.io/dvb6r">https://doi.org/10.31234/osf.io/dvb6r</a>

Tipton, E., **Pustejovsky**, **J. E.**, & *Ahmadi*, *H*. (2019). Current practices in meta-regression in psychology, education, and medicine. Research Synthesis Methods, 10(2), 180-194. https://doi.org/10.1002/jrsm.1339

Pre-print: https://doi.org/10.31234/osf.io/d38aq

**Pustejovsky, J. E.,** & Rodgers, M. A. (2019). Testing for funnel plot asymmetry of standardized mean differences. Research Synthesis Methods, 10(1), 57-71. https://doi.org/10.1002/jrsm.1332

Pre-print: https://doi.org/10.31234/osf.io/ea6kz

Pustejovsky, J. E. (2019). Procedural sensitivities of effect sizes for single-case designs with directly observed behavioral outcomes. *Psychological Methods*, 24(2), 217-235. https://doi.org/10.1037/met0000179

Pre-print: https://doi.org/10.31234/osf.io/vxa86

Swan, D. M., & Pustejovsky, J. E. (2018). A gradual effects model for single-case designs. Multivariate Behavioral Research, 53(4), 574-593.

https://doi.org/10.1080/00273171.2018.1466681

Pre-print: https://doi.org/10.31234/osf.io/vh964

Pustejovsky, J. E. (2018). Using response ratios for meta-analyzing single-case designs with behavioral outcomes. *Journal of School Psychology*, 68, 99-112.

https://doi.org/10.1016/j.jsp.2018.02.003

Pre-print: https://doi.org/10.31234/osf.io/nj28d

Pustejovsky, J. E. & Tipton, E. (2018). Small sample methods for cluster-robust variance estimation and hypothesis testing in fixed effects models. *Journal of Business and Economic* Statistics, 36(4), 672-683. https://doi.org/10.1080/07350015.2016.1247004

Odom, S. L., Barton, E. E., Reichow, B., Swaminathan, H., & Pustejovsky, J. E. (2018). Between-case standardized effect size analysis of single case designs: Examination of the two methods. Research in Developmental Disabilities, 79, 88-96. https://doi.org/10.1016/j.ridd.2018.05.009

Zimmerman, K. N., Ledford, J. R., Severini, K. E., Pustejovsky, J. E., Barton, E. E., & Lloyd, B. P. (2018). Single-case synthesis tools I: Comparing tools to evaluate SCD quality and rigor. Research in Developmental Disabilities, 79, 19-32. https://doi.org/10.1016/j.ridd.2018.02.003

- Zimmerman, K. N., Pustejovsky, J. E., Ledford, J. R., Barton, E. E., Severini, K. E., & Lloyd, B. P. (2018). Single-case synthesis tools II: Comparing quantitative outcome measures. Research in Developmental Disabilities, 79, 65-76. https://doi.org/10.1016/j.ridd.2018.02.001
- Maggin, D. M., Lane, K. L., & **Pustejovsky**, J. E. (2017). Introduction to the special issue on single-case systematic reviews and meta-analysis. Remedial and Special Education, 38(6), 323-330. https://doi.org/10.1177/0741932517717043
- Barton, E. E., Pustejovsky, J. E., Maggin, D. M., & Reichow, B. (2017). Technology-aided instruction and intervention for students with ASD: A meta-analysis using novel methods of estimating effect sizes for single-case research. Remedial and Special Education, 38(6), 371-386. https://doi.org/10.1177/0741932517729508
- Maggin, D. M., Pustejovsky, J. E., & Johnson, A. H. (2017). A meta-analysis of schoolbased group contingency interventions for students with challenging behavior: An update. Remedial and Special Education, 38(6), 353-370. https://doi.org/10.1177/0741932517716900
- Common, E. A., Lane, K. L., **Pustejovsky, J. E.**, Johnson, A. H., & Johl, L. E. (2017). Functional assessment-based interventions for students with or at-risk for high incidence disabilities: Field-testing single-case synthesis methods. Remedial and Special Education, 38(6), 331-352. https://doi.org/10.1177/0741932517693320
- **Pustejovsky, J. E.** & Swan, D. M. (2015). Four methods of analyzing partial interval recording data, with application to single-case research. Multivariate Behavioral Research, 50 (3), 365-380. https://doi.org/10.1080/00273171.2015.1014879
- Tipton, E. & Pustejovsky, J. E. (2015). Small-sample adjustments for tests of moderators and model fit using robust variance estimation in meta-regression. Journal of Educational and Behavioral Statistics, 40(6), 604-634. https://doi.org/10.3102/1076998615606099
- Jim, H. S., Pustejovsky, J. E., Park, C. L., Danhauer, S. C., Sherman, A. S., Fitchett, G., Merluzzi, T. V., Munoz, A. R., George, L., Snyder, M. A. & Salsman, J. M. (2015). Religion, spirituality, and physical health in cancer patients: A meta-analysis. Cancer, 121 (21), 3760-3768. https://doi.org/10.1002/cncr.29353
- Salsman, J. M., Pustejovsky, J. E., Jim, H. S., Munoz, A. R., Merluzzi, T. V., George, L., Park, C. L., Danhauer, S. C., Sherman, A. S., Snyder, M. A., & Fitchett, G. (2015). A meta-analytic approach to examining the relationship between religion/spirituality and mental health in cancer. Cancer, 121 (21), 3769-3778. https://doi.org/10.1002/cncr.29350
- Sherman, A. S., Merluzzi, T. V., Pustejovsky, J. E., Park, C. L., George, L., Fitchett, G., Jim, H. S., Munoz, A. R., Danhauer, S. C., Snyder, M. A. & Salsman, J. M. (2015). A metaanalytic review of religious or spiritual involvement and social health among cancer patients. Cancer, 121 (21), 3779-3788. https://doi.org/10.1002/cncr.29352

- Pustejovsky, J. E. (2015). Measurement-comparable effect sizes for single-case studies of free-operant behavior. Psychological Methods, 20 (3), 342-359. https://doi.org/10.1037/met0000019
- Pustejovsky, J. E. & Runyon, C. R. (2014). Alternating renewal process models for behavioral observation: Simulation methods, software, and validity illustrations. Behavioral Disorders, 39 (4), 211-227.
- **Pustejovsky, J. E.** (2014). Converting from d to r to z when the design uses extreme groups, dichotomization, or experimental control. Psychological Methods, 19 (1), 92-112. https://doi.org/10.1037/a0033788
- Pustejovsky, J. E., Hedges, L. V., and Shadish, W. R. (2014). Design-comparable effect sizes in multiple baseline designs: A general modeling framework. Journal of Educational and Behavioral Statistics, 39(5), 368-393. https://doi.org/10.3102/1076998614547577
- Shadish, W. R., Hedges, L. V., & Pustejovsky, J. E. (2014). Analysis and meta-analysis of single-case designs with a standardized mean difference statistic: A primer and applications. *Journal of School Psychology*, 52, 123-147. https://doi.org/10.1016/j.jsp.2013.11.005
- Shadish, W. R., Hedges, L. V., **Pustejovsky, J. E.**, Boyajian, J. G., Sullivan, K. J., Andrade, A., & Barrientos J. (2014). A *d*-statistic for single-case designs that is equivalent to the usual between-groups d-statistic. Neuropsychological Rehabilitation: An International Journal, 24 (3-4), 528-553. https://doi.org/10.1080/09602011.2013.819021
- Hedges, L. V., Pustejovsky, J. E., & Shadish, W. R. (2013). A standardized mean difference effect size for multiple baseline designs across individuals. Research Synthesis Methods, 4(4), 324-341. https://doi.org/10.1002/jrsm.1086
- Hedges, L. V., Pustejovsky, J. E., & Shadish, W. R. (2012). A standardized mean difference effect size for single case designs. Research Synthesis Methods, 3, 224-239. https://doi.org/10.1002/jrsm.1052
- Dorner, L. M., Spillane, J. P., Pustejovsky, J. E. (2011). Organizing for instruction: A comparative study of public, charter, & Catholic schools. Journal of Educational Change, 12, 71-98. https://doi.org/10.1007/s10833-010-9147-5
- Pustejovsky, J. E., Spillane, J. P., Heaton, R. & Lewis, W. J. (2009). Understanding teacher leadership in middle school mathematics: A collaborative research effort. *Journal* of Mathematics and Science: Collaborative Explorations, 11, 19-40. http://www.math.vcu.edu/g1/journal/IssuesOnline.html#11
- Pustejovsky, J. E. & Spillane, J. P. (2009). Question-order effects in social network name generators. Social Networks, 31(4), 221-229. https://doi.org/10.1016/j.socnet.2009.06.001
- Spillane, J. P., Camburn, E. M., **Pustejovsky, J. E.**, Stitziel Pareja, A., & Lewis, G. (2008). Taking a distributed perspective: epistemological and methodological tradeoffs in

operationalizing the leader-plus aspect. Journal of Educational Administration, 46(2), 189-213. https://doi.org/10.1108/09578230810863262

### **BOOK CHAPTERS**

Pustejovsky, J. E., & Ferron, J. M. (2017). Research synthesis and meta-analysis of singlecase designs. In J. M. Kauffman, D. P. Hallahan, & P. C. Pullen (Eds.), Handbook of Special Education, 2nd Edition. New York, NY: Routledge.

Shadish, W. R., Hedges, L. V., Pustejovsky, J. E., Rindskopf, D. M., Boyajian, J. G., & Sullivan K. J. (2014). Analyzing single-case designs: *d*, *G*, hierarchical models, Bayesian estimators, generalized additive models, and the hopes and fears of researchers about analyses. In T. R. Kratochwill & J. R. Levin (Eds.), Single-Case Intervention Research: Methodological and Data-Analysis Advances. Washington, D.C.: American Psychological Association.

Spillane, J. P., Camburn, E. M., **Pustejovsky, J. E.**, Stitziel Pareja, A., & Lewis, G. (2009). Taking a distributed perspective in studying school leadership and management: The challenge of study operations. Chp. 3 in A. Harris (ed.), Distributed Leadership: Different Perspectives. Dortrecht, DE: Springer, 47-80.

### DISCUSSION PAPERS, LETTERS, AND OTHER PUBLISHED WORK

Pustejovsky, J. E. & Joshi, M. (2021). Evaluating the Transition to College Mathematics Course in Texas high schools: Examining heterogeneity across schools and student characteristics. Greater Texas Foundation White Paper. Greater Texas Foundation, Bryan, TX.

Ganz, J., **Pustejovsky, J. E.**, Reichle, J., Vannest, K., Pierson, L., Wattanawongwan, S., Chen, M., Foster, M., Fuller, M., Haas, A., Hamilton, B., Sallese, M., Smith, S. D., & Yllades, V. (2020). Methodology: Systematic review and meta-analysis of the AAC literature for people with autism spectrum disorder or intellectual disabilities who have complex communication needs through 2020. Available electronically from <a href="https://hdl.handle.net/1969.1/189532">https://hdl.handle.net/1969.1/189532</a>.

Pustejovsky, J. E. & Joshi, M. (2020). Evaluating the Transition to College Mathematics Course in Texas high schools: Findings from the second year of implementation. Greater Texas Foundation White Paper. Greater Texas Foundation, Bryan, TX. https://www.greatertexasfoundation.org/wp-content/uploads/2021/08/Pustejovsky-White-Paper-2020-REVISED.pdf

Pustejovsky, J. E. & Joshi, M. (2019). Evaluating the Transition to College Mathematics Course in Texas high schools: Findings from the first year of implementation. Greater Texas Foundation White Paper. Greater Texas Foundation, Bryan, TX. https://www.greatertexasfoundation.org/wp-content/uploads/2021/08/Pustejovsky-Final-2019.pdf

Valentine, J. C., Tanner-Smith, E. E., Pustejovsky, J. E., & Lau, T. S. (2016). Between-case standardized mean difference effect sizes for single-case designs: A primer and tutorial using the scdhlm web application. Oslo, Norway: The Campbell Collaboration. https://campbellcollaboration.org/library/effect-sizes-single-case-designs-campbelldiscussion-paper-1.html

Salsman, J. M., Pustejovsky, J. E., Park, C. L., Sherman, A. S., Merluzzi, T. V., Danhauer, S. C., Jim, H. S., & Fitchett, G. (2016). Reply to the association between religion/spirituality and mental health in cancer. Cancer, 122, 2441-2442. https://doi.org/10.1002/cncr.30019

# UNDER SUBMISSION/REVISION

Chen, M., Pustejovsky, J. E., Klingbeil, D. A., & Van Norman, E. R. (2021). Between-case standardized mean differences: Flexible methods for single-case designs. https://psyarxiv.com/3pk5q

Ledford, J. R., Lambert, J., Pustejovsky, J. E., Zimmerman, K. N., & Barton, E. E. (2022). Single case design research in Special Education: Next generation standards and considerations. https://osf.io/e98nw/

Winters, K. L., Jasso, J., Pustejovsky, J. E., & Byrd, C. (2022). Investigating narrative performance in children with developmental language disorder: A systematic review and meta-analysis. https://psyarxiv.com/bcky8/

Vembye, M. H., Pustejovsky, J. E., & Pigott, T. D. (2022). Power approximations for metaanalysis of dependent effect sizes. https://osf.io/preprints/metaarxiv/6tp9y/

Lee, Y. R., & Pustejovsky, J. E. (2021). Comparison of competing approaches to analyzing cross-classified data: Random effects models, ordinary least squares, or fixed effects with cluster robust standard errors. <a href="https://psyarxiv.com/f9mr2">https://psyarxiv.com/f9mr2</a>

Protzko, J., Krosnick, J., Nelson, L. D., Nosek, B. A., Axt, J., Berent, M., DeBell, M., Ebersole, C., Lundmark, S., MacInnis, B., O'Donnell, M., Perfecto, H., Pustejovsky, J. E., Roeder, S., Walleczek, J., & Schooler, J. (2020). High replicability of newly-discovered social-behavioral findings is achievable. https://doi.org/10.31234/osf.io/n2a9x

Barber, B., Bedesem, P., Pustejovsky, J. E., & Arner, T. (2019). The effects of technologybased self-monitoring on the on-task behavior of students with behavior problems in inclusive settings.

#### **SOFTWARE**

Joshi, M., Pustejovsky, J. E., Lim, S., & Cappelli, P. (2022). Wildmeta: Cluster Wild Bootstrapping for Meta-Analysis (R package version 0.1.0). URL: https://CRAN.Rproject.org/package=wildmeta

**Pustejovsky, J. E.** (2022). *clubSandwich: Cluster-robust (sandwich) variance estimators with small-sample corrections* (R package version 0.5.5).

URL: https://CRAN.R-project.org/package=clubSandwich

**Pustejovsky, J. E.**, *Chen, M.*, & *Hamilton, B.* (2021). *scdhlm: Estimating Hierarchical Linear Models for Single-Case Designs* (R package version 0.5.2). URL: <a href="https://cran.rho.com/https

**Pustejovsky, J. E.** & Chen, M. (2021). *ImeInfo: Information Matrices for 'ImeStruct' and 'glsStruct' Objects* (R package version 0.1.3). URL: <a href="https://CRAN.R-project.org/package=lmeInfo">https://CRAN.R-project.org/package=lmeInfo</a>

**Pustejovsky, J. E.**, Chen, M., & Swan, D. M. (2021). SingleCaseES: A Calculator for Single-Case Effect Size Indices (R package version 0.5.0). URL: <a href="https://CRAN.R-project.org/package=SingleCaseES">https://CRAN.R-project.org/package=SingleCaseES</a>

*Joshi, M., & Pustejovsky, J. E.* (2021). *simhelpers: Helper Functions for Simulation Studies* (R package version 0.1.1). URL: <a href="https://CRAN.R-project.org/package=simhelpers">https://CRAN.R-project.org/package=simhelpers</a>

Tyszler, M., **Pustejovsky**, **J. E.**, & Tipton, E. (2017). REG\_SANDWICH: Stata module to compute cluster-robust (sandwich) variance estimators with small-sample corrections for linear regression, Statistical Software Components S458352, Boston College Department of Economics. URL: <a href="https://ideas.repec.org/c/boc/bocode/s458352.html">https://ideas.repec.org/c/boc/bocode/s458352.html</a>

**Pustejovsky, J. E.** (2021). *ARPobservation: Simulating Recording Procedures for Direct Observation of Behavior* (R package version 1.2.1). URL: https://CRAN.R-project.org/package=ARPobservation

### **CONFERENCE PRESENTATIONS** (italics indicate student author)

**Pustejovsky**, **J. E.**, & *Chen*, *M.* (2022). Synthesis of non-overlap of all pairs using logistic transformation or binomial generalized linear mixed model. Poster presented at the American Educational Research Association annual convention, April 21, 2022 (online).

Mathur, M., & **Pustejovsky**, **J. E.** (2021). Statistical frontiers for selective reporting and publication bias. Workshop presented at the Society for Improvement of Psychological Science 2021 meeting, June 23, 2021 (online).

*Lee, Y. R., &* **Pustejovsky, J. E.** (2021). Comparison of competing approaches to analyzing cross-classified data. Presentation at the American Educational Research Association annual convention, April 12, 2021 (online).

**Pustejovsky**, **J. E.** (2021). On the multivariate distribution of effect size estimates from single-case experimental designs. Poster presented at the American Educational Research Association annual convention, April 12, 2021 (online).

- *Chen, M., &* **Pustejovsky, J. E.** (2021). Meta-analysis of single-case experimental designs using robust variance estimation. Poster presented at the American Educational Research Association annual convention, April 12, 2021 (online).
- Swan, D. M., **Pustejovsky**, **J. E.**, & Beretvas, S. N. (2021). The impact of response-guided designs on within-case effect size estimates from count-outcome treatment reversal designs. Poster presented at the American Educational Research Association annual convention, April 12, 2021 (online).
- Pustejovsky, J. E. (2021). Synthesis of dependent effect sizes: Versatile models through metafor and clubSandwich. Evidence Synthesis and Meta-Analysis in R Conference, January 21, 2021 (online). <a href="https://youtu.be/Q9Nce5pxebY?t=66">https://youtu.be/Q9Nce5pxebY?t=66</a>
- *Rodgers, M. A.* & **Pustejovsky, J. E.** (2019). Evaluating meta-analytic methods to detect selective outcome reporting in the presence of dependent effect sizes. Presentation at the Society for Research Synthesis Methodology annual meeting, July 22, 2019 in Chicago, IL.
- **Pustejovsky, J. E.** & *Rodgers, M. A.* (2019). A generalized excess significance test for selective outcome reporting with dependent effect sizes. Presentation at the Society for Research Synthesis Methodology annual meeting, July 22, 2019 in Chicago, IL.
- **Pustejovsky, J. E.** (2019). Log response ratio effect sizes: Rationale and methods for single case designs with behavioral outcomes. Presentation at the Association for Behavior Analysis International annual convention, May 26, 2019 in Chicago, IL.
- **Pustejovsky, J. E.**, *Swan*, *D.M.*, & *English*, *K. E.* (2019). An examination of measurement procedures and baseline behavioral outcomes in single-case research. Poster presented at the American Educational Research Association annual convention, April 7, 2019 in Toronto, Ontario.
- *Swan, D.M.,* **Pustejovsky, J. E.**, & Beretvas, S. N. (2019). The impact of response-guided designs on count outcomes in single-case design baselines. Poster presented at the American Educational Research Association annual convention, April 7, 2019 in Toronto, Ontario.
- **Pustejovsky, J. E.**, & *English, K. E.* (2019). Effects of single-sex schools on academic performance: An evaluation of all-girls public schools in Texas. Presentation at the American Educational Research Association annual convention, April 7, 2019 in Toronto, Ontario.
- *Rodgers, M.A.* & **Pustejovsky, J.E.** (2019). Evaluating meta-analytic methods to detect outcome reporting bias in the presence of dependent effect sizes. Poster presented in the Division-D In-Progress Research Gala at the Annual Meeting of the American Educational Research Association annual convention, April 8, 2019 in Toronto, Ontario.
- **Pustejovsky, J. E.** (2019). Small sample cluster-robust variance estimators for two-stage least squares models. Presentation at the Society for Research on Educational Effectiveness Conference, March 8, 2019 in Washington, D.C.

- Furman, G. & Pustejovsky, J. E. (2019). Assessing sampling methods for generalization from RCTs: Modeling recruitment and participation. Presentation at the Society for Research on Educational Effectiveness Conference, March 7, 2019 in Washington, D.C.
- **Pustejovsky, J.E.,** Tipton, E., & Aloe, A. (2018). Combining robust variance estimation with models for dependent effect sizes. Presentation at the Society for Research Synthesis Methodology annual meeting, July 18, 2018 in Bristol, UK.
- **Pustejovsky**, **J.E.**, Tipton, E., & Aloe, A. (2018). Meta-analysis of dependent effect sizes: A review and consolidation of methods. Presentation at the American Educational Research Association annual convention, April 15, 2018 in New York, NY.
- *Rodgers, M.A.* & **Pustejovsky, J.E**. (2018). Testing for funnel plot asymmetry of standardized mean differences. Presentation at the American Educational Research Association annual convention, April 15, 2018 in New York, NY.
- Tipton, E., **Pustejovsky**, **J.E.**, & *Ahmadi*, *H*. (2018). Meta-analysis in Education: Past, Present, & Future. Presentation at the American Educational Research Association annual convention, April 15, 2018 in New York, NY.
- Swan, D.M., & **Pustejovsky**, **J.E.** (2018). A gradual effects model for single-case designs. Poster presented at the Institute of Education Sciences 2018 Principal Investigators Meeting, January 10, 2018 in Washington, DC.
- **Pustejovsky**, **J.E.**, & *Furman*, *G.* (2017). Heteroskedasticity-robust tests in linear regression: A review and evaluation of small-sample corrections. Presentation at the American Educational Research Association annual convention, April 30, 2017 in San Antonio, TX.
- **Pustejovsky, J.E.** (2017). Using response ratios for meta-analyzing single-case designs with behavioral outcomes. Poster presented at the American Educational Research Association annual convention, April 28, 2017 in San Antonio, TX.
- *Swan, D.M.*, & **Pustejovsky, J.E.** (2017). A nonlinear intervention analysis model for treatment reversal single-case designs. Poster presented at the American Educational Research Association annual convention, April 28, 2017 in San Antonio, TX.
- Moskowitz, J.T., **Pustejovsky**, **J.E.**, Hernandez, R., Schueller, S.M., Berendsen, M. & Salsman, J.M. (2017). Don't worry, be happy? Meta-analysis of intervention trials on positive affect in cancer patients and survivors. In J.M. Salsman (Chair), Promoting psychological well-being in cancer patients and survivors: Meta-analyses of randomized clinical trials. Annals of Behavioral Medicine, 51 (Suppl.), S1624.
- Park, C.L., **Pustejovsky**, **J.E.**, Trevino, K., Sherman, A., Esposito, C., Berendsen, M., & Salsman, J.M. (2017). Do psychosocial interventions with cancer patients and survivors increase meaning and purpose? A meta-analytic approach. In J. M. Salsman (Chair), Promoting psychological well-being in cancer patients and survivors: Meta-analyses of randomized clinical trials. Annals of Behavioral Medicine, 51 (Suppl.), S1625.

- Merluzzi, T.V., **Pustejovsky**, **J.E.**, Philip, E.J., Berendsen, M., Heitzmann Ruhl, C.A., & Salsman, J.M. (2017). A meta-analytic review of interventions to enhance self-efficacy behaviors in cancer patients and survivors. In J. M. Salsman (Chair), Promoting psychological well-being in cancer patients and survivors: Meta-analyses of randomized clinical trials. Annals of Behavioral Medicine, 51 (Suppl.), S1626.
- **Pustejovsky, J. E.** & Tipton, E. (2017). Small sample corrections for use of cluster-robust standard errors in the analysis of school-based experiments. Presentation at the Society for Research on Educational Effectiveness Conference, March 2, 2017 in Washington, D.C.
- **Pustejovsky**, **J. E.** & Tipton, E. (2016). Small-sample methods for cluster-robust variance estimation and hypothesis testing in fixed effects models. Presentation at the Joint Statistical Meetings, July 31, 2016 in Chicago, IL.
- **Pustejovsky**, **J. E.** & Tipton, E. (2015). Small-sample adjustments for multiple-contrast hypothesis tests of meta-regressions using robust variance estimation. Presentation at the annual meeting of the Society for Research Synthesis Methods, July 8, 2015 in Nashville, TN.
- **Pustejovsky, J. E.** (2015). Operational sensitivities of non-overlap effect sizes for single-case experimental designs. Poster presented at the American Educational Research Association annual convention, April 19, 2015 in Chicago, IL.
- **Pustejovsky, J. E.** & Tipton, E. (2015). Small-sample adjustments for F-tests using robust variance estimation in meta-regression. Presentation at the American Educational Research Association annual convention, April 18, 2015 in Chicago, IL.
- **Pustejovsky**, **J. E.** (2015). Observation procedures and Markov Chain models for estimating the prevalence and incidence of a state behavior. Presentation at the American Educational Research Association annual convention, April 16, 2015 in Chicago, IL.
- Tipton, E. & **Pustejovsky**, **J. E.** (2015). Small-sample adjustments for tests of moderators and model fit using robust variance estimation in meta-regression. Presentation at the Society for Research on Educational Effectiveness Conference, March 6, 2015 in Washington, D.C.
- Salsman, J. M., Munoz, A. R., **Pustejovsky, J. E.**, Jim, H. S., Park, C. L., Danhauer, S. C., Sherman, A. S., George, L., Merluzzi, T. V., & Fitchett, G. (2014). A meta-analytic approach to examine the relationship between religion/spirituality and mental health in cancer. Presentation at the Annual Conference of the Society for Behavioral Medicine, April 24, 2014 in Philadelphia, PA.
- Jim, H. S., Merluzzi, T. V., Danhauer, S. C., **Pustejovsky, J. E.**, Munoz, A. R., Fitchett, G., Park, C. L., Sherman, A. S., George, L., & Salsman, J. M. (2014). A meta-analysis of the relationship between religion/spirituality and physical health in cancer survivors. Presentation at the Annual Conference of the Society for Behavioral Medicine, April 24, 2014 in Philadelphia, PA.
- Merluzzi, T. V., Sherman, A. S., Park, C. L., George, L., Fitchett, G., Jim, H. S., Munoz, A. R., **Pustejovsky, J. E.**, Danhauer, S. C., & Salsman, J. M. (2014). A meta-analytic review of

religion/spirituality and social QOL among cancer patients. Presentation at the Annual Conference of the Society for Behavioral Medicine, April 24, 2014 in Philadelphia, PA.

**Pustejovsky, J. E. &** Swan, D.M. (2014). Four methods of analyzing partial interval recording data, with application to single-case research. Poster presented at the American Educational Research Association annual convention, April 4, 2014 in Philadelphia, PA.

Pustejovsky, J. E. (2014). Addressing construct invalidity in partial interval recording data. Presentation at the Texas Universities Educational Statistics and Psychometrics Meeting, March 21, 2014, at Texas A&M University, College Station, TX.

Pustejovsky, J. E. (2014). On internal validity in multiple baseline designs. Presentation at the Society for Research on Educational Effectiveness Conference, March 6, 2014 in Washington, D.C.

Pustejovsky, J. E. (2013). Effect sizes and measurement comparability for meta-analysis of single-case research. Presentation at the annual convention of the Association for Behavior Analysis International, May 28, 2013 in Minneapolis, MN.

Pustejovsky, J. E. (2013). Observation procedures and Markov chain models for estimating the prevalence and incidence of a behavior. Poster presented at the American Educational Research Association annual convention, April 30, 2013 in San Francisco, CA. Awarded first place in the Division-D In-Progress Research Poster Competition.

Pustejovsky, J. E. (2013). Operationally comparable effect sizes for meta-analysis of single-case research. Presentation at the Society for Research on Educational Effectiveness Conference, March 7, 2013 in Washington, D.C.

Hedges, L. V., Shadish, W. R., & Pustejovsky, J. E. (2011). A d-estimator for single case designs. Presentation at the Society for Research Synthesis Methods conference, July 13, 2011 in Ottawa, Canada.

Pustejovsky, J. E. (2011). Power analysis for anticipated non-response in randomized block experimental designs. Poster presented at the Society for Research on Educational Effectiveness Conference, March 3-5, 2011 in Washington, D.C.

**Pustejovsky**, **J. E.** (2010). Power analysis for anticipated non-response in simple experimental designs. Poster presented at the Institute for Education Sciences Conference, June 28-30, 2010 in Washington, D.C.

Pustejovsky, J. E. & Spillane, J. P. (2009). Question-order effects in social network name generators. Poster presented at the 28th annual International Sunbelt Social Network Conference, January 22-28, 2008, in St. Petersburg Beach, Florida.

#### **INVITED PRESENTATIONS**

**Pustejovsky**, **J. E.** (2022). The state of single case synthesis: Premises, tools, and possibilities. Spencer Single Case Conference, May 19, 2022 at Vanderbilt University, Nashville, TN.

**Pustejovsky**, **J. E.** (2022). Selective reporting in meta-analysis of dependent effect sizes. Presentation at the Stanford Quantitative Sciences Unit Research Methods Seminar, February 8, 2022 (online).

Pustejovsky, J. E. (2018). Meta-analysis of single-case research: A brief and breezy tour. Presentation at the Systematic Reviews and Meta-Analysis Special Interest Group, American Educational Research Association annual convention, April 15, 2018 in New York, NY.

Pustejovsky, J. E. (2018). Randomization inference for single case experimental designs. Presentation at the Institute of Education Sciences 2018 Principal Investigators Meeting, January 10, 2018 in Washington, DC.

Pustejovsky, J. E. (2016). Effect sizes for single case research. Presentation at Institute of Education Sciences 2016 Principal Investigators Meeting, December 19, 2016 in Washington, DC.

Pustejovsky, J. E. (2016). When large samples act small: The importance of small-sample adjustments for cluster-robust inference in impact evaluations. Presentation at the American Institutes for Research Impact Working Group Lecture Series, July 18, 2016.

Pustejovsky, J. E. (2013). Some Markov models for direct observation of behavior. Presentation at the Department of Statistics, Northwestern University, May 29, 2013.

Pustejovsky, J. E. (2012). Some implications of behavioral observation procedures for meta-analysis of single-case research. Presentation at the Department of Educational Psychology, College of Education, University of Texas at Austin, November 14, 2012.

#### **ADVISING**

Doctoral dissertation supervision:

- Melissa Rodgers (current, UT Austin, Quantitative Methods)
- Gleb Furman (current, UT Austin, Quantitative Methods)
- Megha Joshi (2021, UT Austin, Quantitative Methods)
- Christopher R. Runyon (2020, UT Austin, Quantitative Methods)
- Daniel M. Swan (2019, UT Austin, Quantitative Methods)

Doctoral dissertation committee:

- Pragya Shrestha (current, University of Delaware, Quantitative Methods)
- Soobin Im (current, UW Madison, School Psychology)
- Shiyu Yang (current, UW Madison, Life Sciences Communication)
- Nichole Baker (current, UT Austin, School Psychology)
- Nana Kim (current, UW Madison, Quantitative Methods)

- Rebecca Woo (2022, UT Austin, School Psychology)
- Lisa Moore (2021, UW Madison, School Psychology)
- Christy R. Austin (2019, UT Austin, Special Education)
- Kejin Lee (2019, UT Austin, Quantitative Methods)
- Michael J. Balsan (2019, UT Austin, Counseling Psychology)
- Abigail Mitchell (2019, UT Austin, School Psychology)
- Miranda Nadeau (2018, UT Austin, Counseling Psychology)
- Man Yang (2018, UT Austin, Special Education)
- Erica Wendel (2018, UT Austin, Human Development, Culture, and Learning Sciences)
- Sophia Yang Hooper (2018, UT Austin, Human Development, Culture, and Learning Sciences)
- Sunyoung Park (2018, UT Austin, Quantitative Methods)
- David Osman (2017, UT Austin, Human Development, Culture, and Learning Sciences)
- Meaghann Wheelis (2017, UT Austin, Quantitative Methods)
- Kelly Banneyer (2016, UT Austin, School Psychology)

### Doctoral qualifying process supervision:

- Young Ri Lee (2020, UT Austin, Quantitative Methods)
- Megha Joshi (2019, UT Austin, Quantitative Methods)
- Melissa Rodgers (2018, UT Austin, Quantitative Methods)
- Gleb Furman (2017, UT Austin, Quantitative Methods)
- Daniel M. Swan (2016, UT Austin, Quantitative Methods)

# *Masters thesis supervision:*

- Michael J. Balsan (2017, Program Evaluation)
- Weiwei Xu (2014, Statistics)

### **SERVICE**

### Leadership:

- AERA Special Interest Group on Systematic Reviews and Meta-Analysis
  - o Chair (2021-present)
  - o Program co-chair (2018-2021)

# Teaching:

• Instructor, Designing Simulations for Power Analysis (and Other Things): A Hands-on Workshop Series Using R. Online workshop series sponsored by the Society for Research on Educational Effectiveness. May 20, May 27, June 3, & June 10, 2021 (online).

- Instructor, Institute of Education Sciences Summer Research Training Institute on Single-Case Intervention Design and Analysis. Madison, WI (June 4-8, 2018; June 18-22, 2019).
- Instructor, American Psychological Association Advanced Training Institute on Single-Case Intervention Research. Madison, WI, June 27-July 1, 2016.

#### Grant review

- Institute of Education Sciences grant review panel (2017, 2019-2021).
- National Science Foundation ad hoc grant review (2019).

## Editorial appointments:

• Psychological Bulletin, associate editor (2020 - present)

#### Editorial boards:

- Research Synthesis Methods (2019 present)
- Journal of Educational and Behavioral Statistics (2019 present)
- Topics in Early Childhood Special Education (2016 present)
- Psychological Bulletin (2015 2019)

### Referee service:

- Methodological referee, Campbell Collaboration (2011 2016)
- Proposal reviews for:
  - Society for Research on Educational Effectiveness (2012, 2016-2019)
  - American Educational Research Association Systematic Reviews & Meta-Analysis SIG (2016-2018)
- Ad-hoc reviews for:
  - Behavior Research Methods
  - o Computational Statistics and Data Analysis
  - o Developmental Neurorehabilitation
  - o Education and Treatment of Children
  - o Evaluation Review
  - Field Methods
  - International Journal of Research & Method in Education
  - o Journal for Specialists in Group Work
  - o Journal of Educational and Behavioral Statistics
  - o Journal of Educational Psychology
  - Journal of Research on Educational Effectiveness
  - o Journal of School Psychology
  - Methodology: European Journal of Research Methods for the Behavioral and Social Sciences
  - o Multivariate Behavioral Research
  - o Psychological Methods
  - o Remedial and Special Education

- Research in Developmental Disabilities 0
- Research Synthesis Methods 0
- Review of General Psychology 0
- Social Networks
- Structural Equation Modeling

# **MEMBERSHIP**

American Statistical Association

American Educational Research Association

Society for Research on Educational Effectiveness