**CURRICULUM VITAE**

**Eunkyeng Baek, Ph. D.**

Department of Educational Psychology

Texas A&M University

[baek@tamu.edu](mailto:baek@tamu.edu)

**EDUCATION**

2015 Ph.D. Curriculum and Instruction

*Concentration: Educational Measurement & Research*

**University of South Florida**

2006 M.A. Industrial and Organizational Psychology

*Concentration: Psychometrics*

**Korea University** [Seoul, Korea]

2003 B.A. Psychology

**Sungshin Women’s University** [Seoul, Korea]

**ACADEMIC POSTIONS**

2024-present **Associate Professor**

Texas A&M University

Department of Educational Psychology

2017-2024 **Assistant Professor**

Texas A&M University

Department of Educational Psychology

2016-2017 **Visiting Assistant Professor**

Texas A&M University

Department of Educational Psychology

2011-2015 **Methodological Consultant**

University of South Florida

Consulting Office for Research in Education (CORE)

2010-2015 **Graduate Research Assistant**

University of South Florida

Department of Educational Measurement & Research

**PROFESSOINAL EXPERIENCES**

* 1. **Senior Coordinator for Student Learning Evaluation:**

Developing predicted models for evaluation policy

School Board of Polk County

2006-2007 **Senior Researcher:**

Working as psychometrician to develop an aptitude test for army official Korea Institute for Defense Analyses (KIDA)

2005-2006 **Graduate Research Assistant:**

Working as a psychometrician to develop a pre-employment test

Dusan Group

2004-2005 **Graduate Research Assistant:**

Working as a psychometrician to develop achievement tests

Korean Psychological Testing Institute

2004 **Graduate Research Assistant:**

Working as a psychometrician to develop a pre-employment test

Korean Airlines

**RESEARCH INTEREST**

**Single-Case data analysis**

* Statistical methods to synthesize single-case data
* Methodological issues of single-case data analysis

**Multilevel modeling/Longitudinal modeling**

* Consequences of misspecification of the model
* Consequences of using different estimation methods

**Contemporary quantitative research methodologies**

* Structural equation modeling
* Bayesian estimation method

**Large-scale longitudinal data analysis**

* Long term effect of educational policy
* Analyzing student academic achievement

**GRANT ACTI VITIES**

**Submitted/ Under review**

Multilevel Meta-Analysis of the Impacts of Mathematics Interventions Using Technology for Students With or At Risk for Learning Disabilities (2025-2027).

* ***Source****:* **National Science Foundation (NSF)**
* ***Investigators****:* Mikyung Shin (PI), **Eunkyeng Baek (Co-PI)**, Gahangir Hossain (Co-PI), Samuel Choo (Co-PI).
* ***Amount****:* $600,000.
* ***Roles and Responsibilities:***Co-PI, co-author of proposal, conduct core analyses and studies, plan and monitor the project along with PI, and co-author on associated peer-reviewed presentations, and publications.

**Funded**

7. Design Comparable Incidence Rate Ratio (IRR) Effect Sizes for Count Data in Single Case Experimental Designs (2024-2027).

* ***Source:*** Institute of Education Sciences (IES)
* ***Investigators:*** Wen Luo (PI), **Eunkyeng Baek (Co-PI)**, Haoran Li (Co-PI)
* ***Amount:*** $891,971.
* ***Roles and Responsibilities:***Co-PI, plan/consult/conduct statistical analysis, supervise project progress along with PI, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

6. Track One: Web-Based Effect Size Toolkit for the Meta-Analysis of SCED Studies (2023-2024).

* ***Source:*** School of Education Human Development (SEHD) Catapult Research Seed Grant, Texas A&M university.
* ***Investigators:*** **Eunkyeng Baek (PI),** Wen Luo (Co-PI), Lisa Bowman-Perrott (Co-PI)
* ***Amount:*** $30,000.
* ***Roles and Responsibilities:***PI, plan/consult/conduct statistical analysis, supervise project progress, author of proposal, and author on associated peer-reviewed presentations, and publications.

5. Multilevel-Modeling for Single-Case Studies with Count and Proportion Data (2022-2023).

* ***Source:*** College of Education Human Development (CEHD) Renew, Reinvest, & Resubmit (R3) grant, Texas A&M university.
* ***Investigators:*** Wen Luo (PI), **Eunkyeng Baek (Co-PI).**
* ***Amount:*** $22,000.
* ***Roles and Responsibilities:***Co-PI, plan/consult/conduct statistical analysis, supervise project progress along with PI, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

4. A Bridge Between Contemporary Meta-analysis and Applied Research: Explorations and Extensions of Bayesian Meta-analysis for Educational and Social Science Researchers (2021-2023).

* ***Source:*** College of Education Human Development (CEHD) Catapult grant Early career, Texas A&M university.
* ***Investigators:*** Christopher Thompson (PI), **Eunkyeng Baek (Co-PI).**
* ***Amount:*** $30,000.
* ***Roles and Responsibilities:***Co-PI, plan and lead workshops with PI, train graduate students, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

3. The importance of play behavior on the development of self-regulation across

cultural and socioeconomic contexts (2021-2023).

* ***Source:*** College of Education Human Development (CEHD) Catapult grant Next level, Texas A&M university
* ***Investigators:*** Steven Woltering (PI), **Eunkyeng Baek (Co-PI),** & Leann Smith (Co-PI).
* ***Amount:*** $10,000.
* ***Roles and Responsibilities:***Co-PI, Co-author of proposal, consult/conduct statistical analysis, and co-author on associated peer-reviewed presentations, and publications.

2. Innovative K-12 School Design For Active And Healthy Students (2019-2022).

* ***Source:*** Triads for Transformation (T3) Multidisciplinary Seed-Grant. Awarded by the Office of the Provost and Executive Vice President, Texas A&M University
* ***Investigators:*** Xuemei Zhu (PI), **Eunkyeng Baek (Co-PI)**, & Chanam Lee (Co-PI).
* ***Amount:*** $30,000.
* ***Roles and Responsibilities****:* Co-PI, plan and conduct statistical analysis and survey analysis, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

1. Understanding Online Learners: The Development of the Online-Learning Readiness Scale (ORES) (2018-2019).

* ***Source:*** Triads for Transformation (T3) Multidisciplinary Seed-Grant. Awarded by the Office of the Provost and Executive Vice President, Texas A&M University
* ***Investigators:*** Oi-Man Kwok (PI), **Eunkyeng Baek (Co-PI)**, Noelle Wall Sweany (Co-PI), & Alex McIntosh (Co-PI).
* ***Amount:*** $30,000.
* ***Roles and Responsibilities****:* Co-PI, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

**Not-funded/Under revision**

BCSER: Institute of Longitudinal Research Methods for STEM Education Scholars (2024-2026).

* ***Source:*** **National Science Foundation (NSF).**
* ***Investigators:*** Wen Luo (PI), **Eunkyeng Baek (Co-PI),** Christopher Thompson (Co-PI), Oi-Man Kwok (Co-PI), Myeongsun Yoon (Co-PI), Paul Hernandez, and Karen Rambo-Hernandez (Co-PI).
* ***Amount:*** $919,033.
* ***Roles and Responsibilities:***Co-PI, plan/consult/develop modules, supervise project progress along with PI, workshop organizer, co-author of proposal, and co-author on associated peer-reviewed presentations, and publications.

**PUBLICATIONS**

*Former/current students are identified with \*, impact factors (IF) were retrieved from Web of Science (WS), and citation counts were taken from Google Scholar (GS).*

***Refereed Publications (n=22)***

**22. \***Zhou, X.,Padrόn, Y., **Baek, E.,** Waxman, H., & Acosta, S. (2024). STEM teacher professional development engagement and self-efficacy in teaching class with English learners context: A hierarchical linear modeling from TALIS 2018. *International Journal of Science and Mathematics Education.* Advanced online publication.  ***[WS 5yr IF: 2.5]***

21. Li, H., **Baek, E,** Luo, W., & Du, Z., & Lam, K. (2024). Using generalized linear mixed models in the analysis of SCED count and rate data: A step-by-step tutorial. *Evaluation & the Health Professions.* Advance online publication. ***[WS 5yr IF: 2.3]***

20. \*Evans, T. S., Ridley, C., **Baek, E.,** Elliott, T., & Elbert, C. (2024). The relationship of early therapeutic alliance, baseline client symptom severity, and client race to duration in therapy and post client symptom severity. *Journal of Multicultural Counseling and Development*, *52*(3), 189-200. ***[WS 5yr IF: 1.4]***

19. \*Li, H., Luo, W., **Baek, E.,** \*Du, W., & \*Lam, K. (2024). Multilevel modeling in single-case studies with zero-inflated and overdispersed count data. *Behavior Research Methods.* Advance online publication. ***[WS 5yr IF: 7.867]***

**18.** \*Li, H., Luo, W., **Baek, E.,** Thompson, C. G., & \*Lam, K. (2023). Multilevel modeling in single case studies with count and proportion data: A demonstration and evaluation. *Psychological Methods.* Advanced online publication.  ***[WS 5yr IF: 11.5]***

**17. \***Zhou, X.,Padrόn, Y., Waxman, H., **Baek, E.,** & Acosta, S. (2023). How do school climate and professional development in multicultural education impact job satisfaction and self-efficacy for STEM teachers of English learners? A path-analysis. *International Journal of Science and Mathematics Education.* Advanced online publication.  ***[WS 5yr IF: 2.5]***

**16. Baek, E.**, **\*** Lam, K., & Luo, W. (2023). Meta-analysis of single-case experimental design using multilevel modeling approach. *Behavior Modification.* Advance online publication.***[WS 5yr IF: 3.319]***

**15. Baek, E.**, & Luo, W. (2023). Modeling multiple dependent variables in meta-analysis of single-case experimental design using multilevel modeling. *Behavior Research Methods*, 55, 3760-3771. ***[WS 5yr IF: 7.867]***

**14.** \*Li, H, Luo, W., **Baek, E.**, Thompson, C.& **\***Lam, K. (2022). Estimation and statistical inferences of variance components in the analysis of single-case experimental design using multilevel modeling. *Behavior Research Methods**,* 54, 1559–1579. ***[WS 5yr IF: 7.867; times cited (GS): 2]***

**13.** \*Wattanawongwan, S., Ganz, J. B., Hong, E. R., Dunn, C., Yllades, V., Pierson, L. M., **Baek, E.**, & Foster, M. (2022). Interventions on improving social-communication skills for adolescents and adults with ASD: A Meta-analysis review. *Review Journal of Autism and Developmental Disorders.* Advance online publication. ***[WS 5yr IF: 3.795; times cited (GS): 1]***

**12. Baek, E.**, & Ferron, J. M. (2021). Bayesian analysis for multiple-baseline studies where the variance differs across cases in OpenBUGS. *Developmental Neurorehabilitation, 24(2),* 130-143.***[WS 5yr IF: 2.308; times cited (GS): 2]***

**11.** Luo, W., \*Li, H., **Baek, E.**, \*Lam, K., \*Chen, S., & \*Semma, B. (2021). Reporting Practice in Multilevel Modeling: A Revisit After 10 Years. *Review of Educational Research.*Advance online publication.  ***[WS 5yr IF: 20.558; times cited (GS): 13]***

**10. Baek, E.**, Luo, W. & **\***Henri, M. (2020). Issues and solutions in meta-analysis of single-case design with multiple dependent variables using multilevel modeling. *Journal of Experimental Education, 90(4),* 934-961. ***[WS 5yr IF: 2.755; times cited (GS): 3]***

**9.** \*Yeh, Y., Kwok, O.,\*Chien, H., Sweany, N. W., **Baek, E.**, & McIntosh, W. (2020*).* Identifying at-risk online learners by psychological variables using machine learning techniques. *Online Learning, 24(4),* 131-146.https://doi.org/10.24059/olj.v24i4.2320***[WS (ESCI) 2020 IF 2.46; times cited (GS): 3]***

**8. Baek, E.**, & Ferron, J. M. (2020). Modeling heterogeneity of the level-1 error covariance matrix in multilevel models for single-case data using Bayesian estimation. *Methodology, 16,* 166-185. ***[WS 5yr IF: 2.163; times cited (GS): 7]***

**7. Baek, E**., W., Beretvas, T., Van den Noortgate, & Ferron, J. (2020). Brief research report: REML versus Bayesian estimation with noninformative priors in multilevel models of multiple-baseline data. *Journal of Experimental Education,* *88,* 698-710.***[WS 5yr IF: 2.755; times cited (GS): 17]***

**6.** \*Yeh, Y., Kwok, O.,\*Chien, H., Sweany, N. W., **Baek, E.**, & McIntosh, W. (2019*).* How college students’ achievement goal orientations predict their expected online learning outcome: The mediation roles of self-regulated learning strategies and supportive online learning behaviors. *Online Learning, 23,* 23-41*.* ***[WS (ESCI) 2020 IF 2.46; times cited (GS): 68]***

**5.** Petit-Bois, M., **Baek, E.**, Van den Noortgate, W., Beretvas, T., & Ferron, J. (2016). The consequences of modeling autocorrelation when synthesizing single-case studies using a three level model. *Behavior Research Methods, 48,* 803-812. ***[WS 5yr IF: 7.867; times cited (GS): 26]***

**4. Baek, E.**, Petit-Bois, M., Van den Noortgate, W., Beretvas, T., & Ferron, J. (2016). Using visual analysis to evaluate and refine multilevel models of single-case studies. *Journal of Special Education*, *50,* 18-26. ***[WS 5yr IF: 2.967; times cited (GS): 20]***

**3. Baek, E.**, Moeyaert, M., Petit-Bois, M., Beretvas, T., Van den Noortgate, W., & Ferron, J. (2014). The use of multilevel analysis for integrating single-case experimental design results within a study and across studies. *Neuropsychological Rehabilitation, 24,* 590-606. ***[WS 5yr IF: 2.926; times cited (GS): 43]***

**2. Baek, E.**, & Ferron, J. M. (2013). Multilevel Models for Multiple-Baseline Data: Modeling Across Participant Variation in Autocorrelation and Residual Variance*. Behavior Research Methods. 45,* 65-74. ***[WS 5yr IF: 7.867; times cited (GS): 54]***

**1.** Chatters, S., **Baek, E.**, & Rodríguez-Campos, L. (2010). Program management in secondary schools: A collaborative metaevaluation. *The International Journal of Knowledge, Culture, and Change* *Management, 10*, 22-35. ***[WS IF not available, SJR: 0.105]***

***Book chapters and conference proceedings (n=3)***

Luo, W., **Baek, E.,** & \*Li, H. (2022). Transparency and replicability of multilevel modeling applications: A guideline for improved reporting practices. In Khine, M. S. (Eds), *Methodology for Multilevel Modeling in Educational Research: Concepts and Applications*, [pp. 161−183]. Springer Nature, Singapore.

Kwok, O., **\***Yeh, Y., **\***Chien, H., Sweany, N. W., **Baek, E.**, & McIntosh, W. (March, 2019*). Finding the At-Risk Online Learners: Development of the Online REadiness Screener (ORES).* The Companion Proceedings of the 9th International Conference on Learning Analytics and Knowledge (LAK19) (pp.159-160). New York, NY: ACM. [*https://www.solaresearch.org/wp-content/uploads/2019/08/LAK19\_Companion\_Proceedings.pdf*](https://www.solaresearch.org/wp-content/uploads/2019/08/LAK19_Companion_Proceedings.pdf) ***[2019 Google H5-index for International Conference on Learning Analytics and Knowledge: 36; Ranked 6th in “Educational Technology” based on Google Scholar Metrics]***

**Baek, E.**, & Chatter, S. (2015). Using a Collaborative Approach in the Evaluation of a graduate Program. In Rodríguez-Campos, L. (Eds.), *Collaborative Evaluation in Practice: Insights from Business, Education and Nonprofit.* Scottsdale, AZ: Information Age Publishing.

***Evaluative and Technical Reports***

Rodríguez-Campos, L., **Baek, E.**, Owens, C., & Walker, C. (2011). *Recognizing Extraordinary Accomplishments of Children (REACH): Quarterly Performance Report\_ May 2011.* Florida, USA: University of South Florida, Grant’s Principal Investigator.

Rodríguez-Campos, L., **Baek, E.**, Owens, C., & Walker, C. (2010). *Recognizing Extraordinary Accomplishments of Children (REACH): Quarterly Performance Report\_ November 2010.* Florida,USA: University of South Florida, Grant’s Principal Investigator.

Rodríguez-Campos, L., **Baek, E.**, Owens, C., & Walker, C. (2010). *Recognizing Extraordinary* *Accomplishments of Children (REACH): Quarterly Performance Report\_ May 2010.* Florida, USA:University of South Florida, Grant’s Principal Investigator.

Rodríguez-Campos, L., **Baek, E.**, Bradshaw, W., Chatters, S. Lake, J., Lewis, J. Mahowski, J., Pham, T., & Sibley, C. (2010). *Metaevaluation of Commissioned Reports*. Florida, USA: Metaevaluation client(client requested confidentiality).

***Non-Refereed Publications***

**Baek, E.**, & Chatters, S. (June, 2011). AEA365: Improving the dynamics of metaevaluation teams. *American Evaluation Association Website, 6,* 20. Retrieved from http://aea365.org/blog/?p=3769.

**Baek, E.**, & Chatters, S. (May, 2011). AEA365: Risks in Internal Evaluation. *American Evaluation Association Website, 5,* 24. Retrieved from http://aea365.org/blog/?p=3518.

***Manuscripts in Progress***

**Baek, E.,** Luo, W., \*Li, H., & Koehler, Noah. (revision). GLMM for meta-analysis of SCED with count data: An introduction and tutorial. *Psychological Methods.*

**\***Lam, K., **Baek, E.,** Luo, W., \*Li, H., & W, Du. (In progress). Statistical power and type I error rate for effect size measures in Single-case experimental designs: A Monte Carlo simulation study. *Behavioral Education.*

\*Li, C., **Baek, E., &** Luo, W. (In progress). Generalized least squares transformation for Single-case experimental design: Introducing the R package lmeSCED.

\*Xue, Y., Moeyaert, M., **Baek, E.**, Solomon, B., Noortgate, W. **\***Semma, B. (In progress). Standardized effect sizes for autocorrelated single-case experimental design data: A Monte Carlo simulation study. *Behavioral Education.*

**CONFERENCE PRESENTATIONS *(Former/current students are marked with \*)***

Li, H., Luo, W., **Baek, E.,** **\***Lam, K., & \*Du, Z. (April, 2024). *Tests for Overdispersion and Zero Inflation in SCED (Single-Case Experimental Design) Count Data: A Multistage Model-Selection Procedure.* Poster presented at the Annual Meeting of the American Educational Research Association, Philadelphia, PA.

Luo, W., Li, H., **Baek, E.,** **\*** Du, Z. & \*Koehler, N. (April, 2024). *Establishing Domain-Specific Empirical Benchmarks for GLMM-Based Effect Sizes in SCEDs.* Poster presented at the Annual Meeting of the American Educational Research Association, Philadelphia, PA.

\*Zhou, X., Padron, Y., **Baek, E.,** Waxman, H., & Acosta, S. (April, 2024). *Professional Development Engagement and Self-Efficacy of STEM Teachers of English Learners: A Hierarchical Linear Modeling Research Study.* Paper presented the annual meeting of the American Educational Research Association, Philadelphia, PA.

\*Zhou, X., Padron, Y., **Baek, E.,** & Waxman, H. (April, 2024). *STEM Teachers' Social-Emotional Competencies and Teaching Efficacy in Urban Areas Post-Pandemic.* Paper presented the annual meeting of the American Educational Research Association, Philadelphia, PA.

\*Evans, T. S., Ridley, C., Baek, E., Elliott, T., & Elbert, C. (August, 2023). *The relationship of early alliance, baseline client symptoms, and client race to duration and outcomes.* Poster presented at the American Psychological Association Convention, Washington D.C.

\*Li, H., Luo, W., **Baek, E.,** \*Lam, K., \*Du, W., & Koehler, N. (June, 2023). *GLMMs for Overdispersed Count Data in SCED Studies: Does Autocorrelation Matter?* Paper presented at the Annual Meeting of the Modern Modeling Methods, Storrs, CT.

\*Li, H., Luo, W., **Baek, E.,** Lam, K. H., Du, W., & Koehler, N. (2023, May). *Single-case studies with count and proportion outcomes: A data analytical framework using generalized linear mixed models.* Poster presented at the Wing Institute Single-Case Conference, Nashville, TN.

\*Zhou, X., Padron, Y., Waxman, H., **Baek, E.,** & Acosta, S. (April, 2023). *How Do School Climate and Professional Development in Multicultural Education Impact Job Satisfaction and Self-Efficacy for STEM Teachers of English Learners? A Path-Analysis.* Paper presented the annual meeting of the American Educational Research Association, Chicago, IL.

Thompson, C., & **Baek, E.** (April, 2023). *A data-driven prior distribution for between-studies heterogeneity in meta-analysis.* Paper presented the annual meeting of the American Educational Research Association, Chicago, IL.

Zhu, X., Lee, H., Hegde, M., \* Lam, K., **Beak, E.,** & Lee, C. (March, 2023). *Impacts of K-12 School Environments on Students' Physical Activity, Physical Fitness, and Academic Outcomes: A State-wide Study in Texas.* Paper presented at the Active Living Conference (ALC), Bethesda, MD.

\*Zhu, X., Lee, H., Hegde, M., \* Lam, K., **Beak, E.,** & Lee, C. (October, 2022). *DESIGN FOR LEARNING AND HEALTH: State of Elementary School Facilities in Texas and How They Affect Learning and Fitness.* Paper presented at the Learning SCAPES conference, San Antonio, TX.

**\***Li, H., Luo, W., **Baek, E.,** Thompson, C., & **\***Lam, K. (April, 2022). *Multilevel Modeling in Single-Case Studies with Zero-Inflated Count Data.* Poster presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

**\***Li, H., Luo, W., **Baek, E.,** Thompson, C., & **\***Lam, K. (April, 2022). *Generalized Linear Mixed Modeling in Single-Case Studies With Count and Proportion Data.* Graduate Student Research GallaPoster presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.

Thompson, C., **\***Semma, B., & **Baek, E.** (Nov, 2021). *A data-driven prior distribution for between-studies heterogeneity in meta-analysis.* Paper presented at the annual meeting of the Florida Educational Research Association, Tampa, FL.

**\***Li, H., Luo, W., **\***Lam, K., **Baek, E.,** & Thompson, C.(April, 2021). *Multilevel modeling in single case studies with count data.* Poster presented at the Annual Meeting of the American Educational Research Association (Virtual).

**\***Li, H., **\***Lam, K., Luo, W., **Baek, E.,** & Thompson, C.(June, 2020). *Innovated Methods to Improving Performance of Multilevel Modeling for Variance Components in the Analysis of SCED.* Paper presented at the Annual Meeting of the Modern Modeling Methods, Storrs, CT (Conference Canceled due to Covid-19).

**\***Li, H., **\***Lam, K., Luo, W., **Baek, E.,** & Thompson, C, & **\***Majzun, A.(April, 2020). *Performance of Multilevel Modeling and Power of Tests for Variance Components in the Analysis of Single-Case Experimental Designs.* Poster presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA. [http://tinyurl.com/y29c9tl3](https://urldefense.com/v3/__http:/tinyurl.com/y29c9tl3__;!!KwNVnqRv!XHXpFvqdFYcKyxsuy_ynmSB61JX6IwD9iSN1_8iKMvrtLFvmVf1iP5vlqSDgt4Q$) (Conference Canceled due to Covid-19)

**\***Yeh, Y., Kwok, O., **\***Chien, H., Sweany, N. W., **Baek, E.,** & McIntosh, A. (April, 2020). *Achievement Goals Predict Online Academic Expectations Through Self-Regulated Learning Strategies and Supportive Online Learning Behaviors.* Roundtable session at the Annual Meeting of the American Educational Research Association, San Francisco, CA <http://tinyurl.com/ruw93hx> (Conference Canceled due to Covid-19)

Ganz, J., Machalicek, W., Maggin, D., Vannest, K., & **Baek, E.** (Feb, 2020). *Establishing evidence-based practices in single-case research via the use of meta-analysis.* Panel at the Council for Exceptional Children (CEC), Portland, OR.

**Baek, E.,** **\***Henri, M., & Luo, W. (April, 2019). *Meta-analysis of Single-Case Design using Multilevel modeling: Modeling Between-outcomes Variation in Autocorrelation.* Poster presented at the Annual Meeting of the American Educational Research Association, Toronto, Canada.

**Baek, E.,** **\***Semma, B., **\***Altinsoy, F., **\***Ji, Y., **\***Lam, K., Luo, W., & Thompson, C. (April, 2019). *A systematic review of meta-analyzing single-case data using multilevel modeling*. Poster presented at the Annual Meeting of the American Educational Research Association, Toronto, Canada.

Kwok, O., **\***Yeh, Y., **\***Chien, H., Sweany, N. W., **Baek, E.,** & McIntosh, A. (April, 2019). *Understanding online learners: The development of the Online-Learning REadiness Scale (ORES).* Paper presented at the 1st President's Excellence Fund Symposium, College Station, TX.

**Baek, E.,** Cao, & Chunhua (May, 2016). *Using multi-membership multilevel VAM.* Paper presented at the Annual Meeting of the Modern Modeling Methods, Storrs, CT.

**Baek, E.,** Cao, Chunhua, & Wright, Heather. (November, 2015). *Using PROC GLIMMIX to improve a school district’s Early Warning System by identifying students at risk of dropping out.* Paper presented at the Annual Meeting of the Florida Educational Research Association, Cocoa Beach, FL.

**Baek, E.,** & Ferron, J. M. (April, 2015). *The impact of modeling and not modeling between-case variation in the level-1 error structure on the multilevel modeling in single-case studies: A Monte Carlo study.* Poster presented at the Annual Meeting of the American Educational Research Association, Chicago, IL.

**Baek, E.,** Petit-Bois, M., & Ferron, J. M. (November, 2014). *The Interplay Between Visual Analysis and Multilevel Models in the Synthesis of Single-Case Data.* Paper presented at the Annual Meeting of the Florida Educational Research Association, Cocoa Beach, FL.

**Baek, E.,** Petit-Bois, M., & Ferron, J. M. (April, 2014). *A comparison of Bayesian restricted maximum likelihood approach in multilevel models for single-case data.* Poster presented at the Annual Meeting of the American Educational Research Association. Philadelphia, PA.

Petit-Bois, M., **Baek, E.,** Nguyen, D., & Ferron, J. M. (April, 2014). *The robustness of multilevel models in single-case studies: Non-normal errors and misspecification of the error covariance structure.* Poster presented at the Annual Meeting of the American Educational Research Association. Philadelphia, PA.

**Baek, E.,** Petit-Bois, M., & Ferron, J. M. (April, 2013). *A feasible way to vary level-1 error structure across participants in multilevel models for single-case data.* Poster presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

Petit-Bois, M., **Baek, E.,** & Ferron, J. M. (April, 2013). *The effect of error structure specification on the meta-analysis of single-case studies: A Monte Carlo study.* Poster presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

Pham, T., Petit-Bois, M., **Baek, E.,** & Kromrey, J. D. (April, 2013). *A simulation study of accuracy and precision in estimation of effect size for mediation analysis.* Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

Shaunessy, E., Evans, L., Homan, S., Ferron, J., Lindo, M., Cao, C., & **Baek, E.** (April, 2013). *Gains in reading comprehension and attitudes toward reading among gifted and general education students in title I schools.* Paper presented at the Annual Meeting of the American Educational Research Association. San Francisco, CA.

Ferron, J., Van den Noortgate, W., Beretvas, T., Moeyaert, M., Ugille, M., Petit-Bois, M.,& **Baek, E.** (March, 2013). *Synthesis of single-case experimental data: A comparison of alternative multilevel approaches.* Society for Research on Educational Effectiveness, Washington, D.C.

**Baek, E.,** Petit-Bois, M., & Ferron, J. M. (April, 2012). *Effects of error structure specification on the meta-analysis of single-case studies of reading fluency interventions.* Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

Petit-Bois, M., **Baek, E.,** & Ferron, J. M. (April, 2012). *Consequences of misspecification of growth trajectories when meta-analyzing single-case data using a three-level model.* Paper presented at the annual meeting of the American Educational Research Association, Vancouver, Canada.

**Baek, E.,** Petit-Bois, M., Pham, T., & Kromrey, J. D. (February, 2012). *Estimates of Effect Size Confidence Intervals for Mediation Analysis: An Empirical Investigation of Accuracy and Precision.* Paper presented at the annual meeting of the Eastern Educational Research Association, Hilton Head, SC.

Petit-Bois, M., & Pham, T., **Baek, E.,** & Kromrey, J. D. (April, 2012). *A SAS® macro for computing point estimates and confidence Intervals of effect sizes associated with mediation Analysis.* Paper presented at the SAS global forum 2012, Orlando, FL.

Pham, T., & **Baek, E.** (November, 2011). *The effect of LID on measurement implications, an empirical examination.* Paper presented at the annual meeting of the Florida Educational Research Association, Orlando, FL.

Pham, T., **Baek, E.,** Petit-Bois, M., & Kromrey, J. D. (October, 2011). *CI\_MEDIATE: A SAS® macro for computing point and interval estimates of effect Sizes associated with mediation analysis*. Paper presented at the annual meeting of the Southeast SAS Users Group, Alexandria, VA.

**Baek, E.,** & Chatters, S. (November, 2011). *Developing and sharpening the tools in your toolbox: Strategies for creating tools to be used in a collaborative evaluation.* Paper presented at the annual conference of the American Evaluation Association, Anaheim, CA.

Chatters, S. & **Baek, E.** (November, 2011). *There is no ‘I’ in team: Understanding roles and dynamics in metaevaluation team.* Paper presented at the annual conference of the American Evaluation Association, Anaheim, CA.

Ferron, J. M., & **Baek, E.** (April,2011). *Multilevel models for multiple-baseline data: Modeling between-case variation in autocorrelation.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Dennis, D.V., Kroeger, D.C., Welsh, J., Brummer, R.C., & **Baek, E.** (April, 2011). *Retaining failed policies: A longitudinal study of Florida’s mandatory third-grade retention.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Shaunessy, E., Dedrick, R., Bellara, A., Walker, C., **Baek, E.,** & Stewart, S. (April, 2011). *Review of instruments for student evaluations of distance education instruction.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

Dennis, D.V., Kroeger, D.C., Welsh, J., Brummer, R.C., & **Baek, E.** (November, 2010). *Pre and Post: A view of florida’s third grade retention policy.* Paper in symposium presented at the annual meeting of the Florida Educational Research Association, Orlando, FL.

Shaunessy, E., Dedrick, R., Bellara, A., Walker, C., **Baek, E.,** & Stewart, S. (November, 2010). *A psychometric review of instruments for student evaluations of distance education instruction*. Paper presented at the annual meeting of the Florida Educational Research Association, Orlando, FL.

Chatters, S., **Baek, E.,** Pham, T., & Hunter, Y. (November, 2010). *Evaluation goes to college: The collaborative evaluation of a graduate program*. Paper presented at the annual conference of the American Evaluation Association, San Antonio, TX.

**Baek, E.,** Rodríguez-Campos, L. & Chatters, S. (July, 2010). *Program management in secondary schools: A collaborative metaevaluation*. Paper presented at the International Conference on Knowledge,Culture and Change in Organizations. Toronto, Canada.

**TEACHING EXPERIENCE**

**College Teaching**

***Texas A&M University ( 6 graduate courses : 3 face to face, 3 online)***

* Statistical Analysis in Educational Research I(EPSY640: Graduate, *face to face*)
  + Semesters: Fall 2016, Fall 2017, Fall 2018, Fall 2019, Spring 2023, Spring 2024
* Statistical Analysis in Educational Research II(EPSY641: Graduate, *face to face)*
  + Semesters: Spring 2017, Spring 2018, Spring 2019, Spring 2020, Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024
* Data Analysis for Single-Case Experimental Design in Educational Research (EPSY661: Graduate, *face to face*)
  + Semesters: Spring 2022, Spring 2024
* Survey Instrument Development(EPSY656: Graduate, *online*)
  + Semesters: Fall 2016, Spring 2017, Fall 2017, Spring 2021
* Measurement & Evaluation in Education(EPSY622: Graduate, *online*)
  + Semesters: Fall 2016, Spring 2017
* Survey Research Methods(EPSY690: Graduate, *online*)
  + Semesters: Fall 2016

***University of South Florida (co-teaching 4 graduate courses, face to face)***

* Statistical Analysis for Educational Research III(Graduate)
  + Semesters: Fall 2013
* Statistical Analysis for Educational Research I(Graduate)
  + Semesters: Fall 2012
* Analysis for Single-Case Experiments(Graduate)
  + Semesters: Summer 2012
* Applied Multilevel Model in Education(Graduate)
  + Semesters: Spring 2012

**Course Development (Texas A&M University)**

2022 **Data Analysis for Single-Case Experimental Design in Educational Research**(EPSY661: Graduate)

* Develop a new graduate level course

2016 **Survey Instrument Development**(EPSY656: *Online* Graduate)

* Develop as a graduate online-course

**Major Revision (Texas A&M University)**

2016 **Experimental Design in Education I**(EPSY640: Graduate)

* Revise contents of the course and utilize a software STATA

2017 **Experimental Design in Education II**(EPSY641: Graduate)

* Revise contents of the course and utilize a software STATA

**Invited Speakers**

2023 Guest Speaker for analysis of single-case experimental design, Duksung Women’s University, South Korea

2022 Guest Speaker for meta-analysis course, Florida State University (FSU)

2022 Invited Speaker, Research Talk EPSY colloquium, Texas A&M University

**Doctoral Advisor and Dissertation Chair** [\* signifies my role as Co-Chair]

* Xiaoyu Yang, *in progress*
* Lam Hap Kwok, *graduated*
* Caroline M. Wied, *in progress*
* Fatma Altinsoy\*, *graduated*
* Haoran Li\*, *graduated*

**Doctoral Committee Member (Serve as a methodological consultant)**

* Wenyi Du, *in progress*
* Nyia Hamilton, *in progress*
* Emily Daily, *in progress*
* Olivia Chen, *in progress*
* Sydney Stevens, *in progress*
* Marianne Rice, *in progress*
* Renee A. Jones, *in progress*
* Eun Hye Ko, *in progress*
* Cynthia Lang, *in progress*
* Emily Jimenez, *in progress*
* Xuan Zhou, *in progress*
* Tyler Evans, *in progress*
* Megan Kresse, *in progress*
* Shweta Kailani, *in progress*
* Sanikan Wattanawongwan, *graduated*
* Aaron Campbell, *graduated*
* Yi-Fan Li, *graduated*
* Valeria Yllades, *graduated*
* Mary E. Lockhart, *graduated*

**Master Committee Member**

* Tyler Watson, *in progress*
* Ann Bernhardt, *in progress*
* Emily Daily, *in progress*
* Da Hwin Kim, *in progress*
* Eun Hye Ko, *in progress*
* Rana Hussein, *Graduate*
* Jian-Siang Wang, *Graduate*

**Awards Received by Doctoral Advisees**

2022 Lam Hap Kwok, **Department Educational Psychology Scholarship,** Texas A&M University.

2020 Lam Hap Kwok, **Lechner Scholarship,** Texas A&M University.

**HONORS AND AWARDS**

2023 ⦁ **Outstanding Reviewer’s Certificate Award**

Behavior Research Methods, Psychonomic Society

2010-11 ⦁ **University Graduate Student Enhancement (Top-up fund) Award**

University of South Florida, Graduate School

2009-10 ⦁ **University Graduate Fellowship (UGF) Award**

University of South Florida, Graduate School

2005 ⦁ **Scholarship for Outstanding Graduate Student**

Graduate School of Korea University, Seoul, Korea

2002 ⦁ **Scholarship for Outstanding Undergraduate Student**

Sungshin Women’s University, Seoul, Korea

**SERVICES**

**Texas A&M University**

2024-present Committee member for Faculty Advisory Council (FAC)

2019-presentCo-Director forEducational Research and Evaluation Laboratory (EREL)

2022-2023 EPSY Climate Committee

2016-2017 Incoming advisor for MERIT students

**University of South Florida**

2011-2015 Consultant Consulting Office for Research in Education (CORE)

2011 Member Department Search Committee, Assistant Professor, Measurement and Research

2009-2015 Member Center for Research, Evaluation, Assessment and Measurement (CREAM)

**Journal Editor**

2020-present *Action Editor*, Behavior Research Methods

**Manuscript Reviewer**

2024-present Psychological Methods

2022-present Multivariate Behavioral Research

2021-present Evaluation & the Health Professions

2019-present Journal of Experimental Education

2018-present Behavior Research Methods

2018-present Behavior Modification

2010 Evaluation and Program Planning

2010 American Evaluation Association (AEA)

**PROFESSIONAL AFFILIATIONS**

American Educational Research Association (AERA) 2010-present

Council for Exceptional Children (CEC) 2019

Florida Educational Research Association (FERA) 2010-2014

American Evaluation Association (AEA) 2010-2012

Eastern Educational Research Association (EERA) 2011-2012

**STATISTICAL PROGRAM SKILLS**

SAS / SPSS / STATA / R / S-PLUS / M-PLUS/ WINBUGS/ BILOG-MG / MULTILOG / DFIT / SIBTEST / CSIBTEST / ITERLINK