CURRICULUM VITAE

Eunkyeng Baek, Ph. D.

Department of Educational Psychology
Texas A&M University
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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

2015-2016	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 peerreviewed 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., Padrón, 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*. <u>Advanced online publication</u>. *[WS 5yr IF: 11.5]*
- 17. *Zhou, X., Padrón, 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 ap plications: A guideline for improved reporting practices. In Khine, M. S. (Eds), *Method ology 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 [2019 Google H5-index for International Conference on Learning Analytics and Knowledge: 36;
- 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.

Ranked 6th in "Educational Technology" based on Google Scholar Metrics]

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 Under Peer-Review

- *Li, H., **Baek, E.,** Luo, W., *Du, W., & *Lam, K. (under review). Reanalysis of prelinguistic milieu teaching for school-aged children with autism: An application of generalized linear mixed models. *Frontiers in Psychology*.
- *Klein, M., Thompson, J., Luo, W., & **Baek, E.** (under review). Parental Perceptions of Home Literacy Environments, Social Anxiety and Social Relationships of Children with Autism During the COVID-19 Pandemic. *Journal of Developmental and Physical Disabilities*.
- *Xuan, Z., Padron, Y., Waxman, H., **Baek, E.,** & Acosta, S. (under review). 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 Education*.
- *Campbell, A., Burk, M., Thompson, J., *Semma, B., & **Baek, E.** (under review). Social-Emotional and Behavior Support for Disadvantaged African-American Learners Grades 1-2 At-Risk for Emotional and Behavioral Problems. *School Psychology*.
- *Yllades, V., Ganz, J. B., *Wattanawongwan, S., Dunn, C., **Baek, E.** & Foster, M. (under review). Using Telepractice to Improve Communication and Behavioral Skills for Individuals with ASD and ID: A Meta-Analytic Review. *Journal of Autism and Developmental Disorders*.

Manuscripts in Progress

- **Baek**, E., *Lam, K., *Li, H., Luo, W., & Thompson, C. (In progress). Meta-analysis of single-case data using hyper prior distribution.
- **Baek, E.,** *Semma, B., *Altinsoy, F., *Ji, Y., *Lam, K., Luo, W., & Thompson, C. (In progress). A systematic review of meta-analyzing single-case data using multilevel modeling.
- Thompson, C., *Semma, B., & Baek, E. (In progress). A data-driven prior distribution for between-studies heterogeneity in meta-analysis.

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 Galla Poster 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 (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., & Back, 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*)
 - o Semesters: Fall 2016, Fall 2017, Fall 2018, Fall 2019, Spring 2023
- 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
- Data Analysis for Single-Case Experimental Design in Educational Research (EPSY661: Graduate, *face to face*)
 - o Semesters: Spring 2022
- Survey Instrument Development (EPSY656: Graduate, *online*)
 - o Semesters: Fall 2016, Spring 2017, Fall 2017, Spring 2021
- Measurement & Evaluation in Education (EPSY622: Graduate, *online*)
 - o Semesters: Fall 2016, Spring 2017
- Survey Research Methods (EPSY690: Graduate, *online*)
 - o Semesters: Fall 2016

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

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

Course Development (Texas A&M University)

- 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
- 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

2019-present	Co-Director for Educational 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

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