

Sooyong Lee

PHD

Educational Psychology, The University of Texas at Austin

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Professional Summary

As a psychometrician, I specialize in applying contemporary statistical theories and techniques to my work. My research interests center around developing and utilizing statistical models, including structural equation modeling (SEM), multilevel modeling (MLM), item response theory (IRT), and mixture modeling. In my recent work, I have placed particular emphasis on Bayesian estimation as a means of modeling the relationships between variables.

Education

The University of Texas at Austin

Austin, Texas

PH.D., MAJOR IN QUANTITATIVE METHODS IN EDUCATIONAL PSYCHOLOGY

2017-2023

- Dissertation: Development of a Method for Addressing Various Censoring Effects in a Latent Growth Curve Modeling Framework. Advisor: Tiffany Whittaker

Korea University

Seoul, Republic of Korea

M.A., MAJOR IN EDUCATIONAL STATISTICS AND MEASUREMENT

2014-2017

- Thesis: Exploration of LCA conditions in Latent Class with Low Proportion. Advisors: Sehee Hong

Research experience

FLPS project

Post-doc

IES GRANT

2023/9-present

- Development of FLPS package for Fully-latent Principal Stratification

FLPS project

Graduate Research Assistant

IES GRANT

2021/9-2023/8

- Development of FLPS package for Fully-latent Principal Stratification

Embedded Standard Setting (ESS)

Intern

CREATIVE MEASUREMENT SOLUTIONS LLC

2021/6-2021/8

- Internship for developing ESS package for Embedded Standard Setting

Embedded Standard Setting (ESS)

Intern

CREATIVE MEASUREMENT SOLUTIONS LLC

2020/6-2020/8

- Internship for developing Shiny app for Embedded Standard Setting

maat package development project

Graduate Research Assistant

NORTHWEST EVALUATION ASSOCIATION (NWEA)

2019/9-2020/5

- Development of MAAT package for Computerized Adaptive Testing for Northwest Evaluation Association (NWEA)

Publications

2023

Jonghwan Lee, Christina Schneider, Garron Gianopulos, Luping Niu, **Sooyong Lee**, Sangdon Lim, & Seung W Choi (2023). The Impact of Item Bank Transition Rules on Student Ability Estimates and Achievement Level Classifications. *Journal of Computerized Adaptive Testing*. In print.

- Sooyong Lee**, Suhwa Han, & Seung W. Choi (2023). Bayesian Moderated Non-linear Factor Analysis for DIF Detection under Violation of Equal Variance Assumption. *Educational and Psychological Measurement*. Under review.
- Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Fully Latent Principal Stratification With Measurement Models. *Journal of Educational and Behavioral Statistics*. Under review.
- Rene M. Dailey, ..., & **Sooyong Lee** (2023). Testing A Comprehensive Model of Post-Dissolution Distress: Predicting Initial and Over Time Changes in Distress Following Romantic Dissolution among U.S. Adults. *Journal of Personality and Social Psychology*. Under review.
- Kahyun Lee, **Sooyong Lee**, & Allison Master (2023). From Fixed to Growth: An Intensive Longitudinal Study of the Interplay Between Growth Mindset, Emotions, Sense of Belonging, and Experiences in Daily Life Among College Students. In preparation.
- Kahyun Lee, **Sooyong Lee**, & Allison Master (2023). Exploring the Dynamics of Daily Experiences, Emotions, and Depression among Asian American Students: The Moderating Role of Growth Mindsets. In preparation.
- Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Bayesian and Maximum Likelihood Estimation in Fully Latent Principal Stratification. In preparation.
- Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Multidimensional Fully-latent Principal Stratification. In preparation.
- Sooyong Lee**, Jiwon Kim, & Suyoung Kim (2023). Plausible values in Second-order LGM with dichotomous indicators. In preparation.
- Sooyong Lee**, Suyoung Kim, & Jiwon Kim (2023). Investigating Latent Interaction Effects in Multiple-Group Analysis in the Structural Equation Modeling Framework. In preparation.
- Tiffany A. Whittaker, Laura Stapleton & **Sooyong Lee** (2023). A Tutorial for Obtaining Item Response Theory Results from Structural Equation Modeling in Mplus Software with Rating Scales. In preparation.
- Sooyong Lee** & Tiffany A. Whittaker (2023). Parallel Process Latent Growth Modeling with Multivariate Confounders/Suppressors. *Structural Equation Modeling: A Multidisciplinary Journal*. 30(2), 284-295.
- Sooyong Lee**, Kahyun Lee, & Tiffany A. Whittaker (2023). Application of Associative Discrete-Time Survival Analysis Using Latent Transition Specification. *Structural Equation Modeling: A Multidisciplinary Journal*. 1-12.
- Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Fully Latent Principal Stratification: Combining PS with Model-Based Measurement Models.. *The Annual Meeting of the Psychometric Society*. pp. 287-298.

2022

- Seung Choi, Sangdon Lim, Luping Niu, **Sooyong Lee**, Christina M. Schneider, Jay Lee, & Garron J. (2022). maat: An R Package for Multiple Administrations Adaptive Testing. *Applied Psychological Measurement*. 46-1, 73-74. DOI: 10.1177/01466216211049212.
- Sooyong Lee**, Suhwa Han, & Seung W. Choi (2022). DIF Detection With Zero-Inflation Under the Factor Mixture Modeling Framework. *Educational and Psychological Measurement*. 82-4, 678-704. DOI: 10.1177/00131644211028995.
- Sooyong Lee** & Tiffany A. Whittaker (2022). Comparison of Three Approaches to Class Enumeration in Growth Mixture Modeling when Time Structures are Variant Across Latent Classes. *Structural Equation Modeling: A Multidisciplinary Journal*. 29, 23-35. DOI: 10.1080/10705511.2021.1956320.

2021

- Cory L. Cobb, Charles R. Martínez, Jr., **Sooyong Lee**, Tae Kyoung Lee, & Elma I. Lorenzo-Blanco (2021). Acculturation trajectories differ by youth age at arrival and time in residency among Latino immigrant families in a US emerging immigrant context. *International Journal of Intercultural Relations*. 81, 79-93. DOI: 10.1016/j.ijintrel.2021.01.005.

2016

- Sooyong Lee**, Eun Soo Lee, & Sehee Hong (2016). Effects of adolescent's career development on labor market outcomes: Applying the two-part growth mixture model. *Journal of Vocational Education & Training*. 19(3), 137-162.
- Eun Soo Lee, **Sooyong Lee**, & Sehee Hong (2016). The Effects of Community Child-Center Service on School Adjustment Change Trajectory. *Korean Journal of Social Welfare Research*. 50, 59-85.

Presentation

Presentation

- Tiffany Whittaker, Hyeon-Ah Kang, **Sooyong Lee**, Adam Sales (2023-04). *Bayesian and Maximum Likelihood Estimation in Fully Latent Principal Stratification*. National Council on Measurement in Education (NCME), Chicago, USA.
- Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2022-07). *Fully-Latent Principal Stratification*. International Meeting of the Psychometric Society (IMPS), Bologna, Italy.
- Garron Gianopoulos, Jay Lee, Sangdon Lim, Luping Niu, **Sooyong Lee**, & Seung W. Choi (2022-04). *The Impact of Item Pool Size and Item Pool Distribution on Student Ability Estimates for a Hybrid Interim-Summative CAT*. National Council on Measurement in Education (NCME), San Diego, USA.
- Jay Lee, M. Christina Schneider, Garron Gia, Luping Niu, **Sooyong Lee**, Sangdon Lim, & Seung W. Choi (2022-04). *The Impact of item bank transition rules on student ability estimates and achievement level classifications*. National Council on Measurement in Education (NCME), San Diego, USA.
- Daniel Lewis & **Sooyong Lee** (2021-04). *A Comparison of Two ESS Cut Score Estimation Algorithms*. National Council on Measurement in Education (NCME), Baltimore, MD, USA.

Poster

- Sooyong Lee**, Suhwa Han, & Seung W. Choi (2021-04). *DIF Detection with Zero-Inflation under the Mixture Modeling Framework*. American Educational Research Association (AERA), Virtual.
- Sooyong Lee** & Suhwa Han (2020-07). *Item selection and trait estimation methods in CAT with item leakage*. International Meeting of the Psychometric Society (IMPS), Maryland, USA.
- Sooyong Lee** & Tiffany A. Whittaker (2020-04). *Comparison of Three Approaches to Class Enumeration in Growth Mixture Modeling when Time Structures are Variant Across Latent Classes*. American Educational Research Association (AERA), Virtual.
- Sooyong Lee** & Sehee Hong (2018-07). *Exploration of LCA conditions in Latent Class with Low Proportion*. International Meeting of the Psychometric Society (IMPS), New York, USA.
- Kejin Lee, **Sooyong Lee**, & Youngri Lee (2018-05). *An Alternative Approach to Discrete-Time Survival Analysis for Meaningful Interpretation*. Modern Modeling Methods conference (MMM), Connecticut, USA.

Program

GRshiny package

- <https://sooyongl.github.io/GRShiny/>

R package
2023

clavaan package

- <https://github.com/sooyongl/clavaan>

R package
2023

GRshiny: Graded response model

- <https://sooyonglee.shinyapps.io/GRShiny/>

Shiny application
2022

Embeded Standard Setting

- <https://sooyongl.github.io/EmStanS/>

R package

2022

maat package

- <https://choi-phd.github.io/maat/>

R package

2022

flps package

- <https://cran.r-project.org/web/packages/flps/index.html>

R package

2022

Embeded Standard Setting

- https://sooyonglee.shinyapps.io/ESS_shiny/

Shiny application

2021

Service

International Journal of Intercultural Relations*Reviewer*

2023/7 - present