Sooyong Lee

PhD

Educational Psychology, The University of Texas at Austin

☐ +1 737 865 0618 | ✉ sooyongl09@utexas.com | ⓘ 0000-0002-7964-4508 | ⬤ sooyongl/

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-Present*

Korea University   *Seoul, Republic of Korea*
M.A., MAJOR IN EDUCATIONAL STATISTICS AND MEASUREMENT   *2014-2017*

Research experience

CGS PhD Career Pathways project   *Graduate Research Assistant*
                                                                           2018/9-2019/5

- Data analysis for surveys to collect data on the career pathways of past and present STEM and humanities PhD students.

President's Award for Global Learning (PAGL)   *Graduate Research Assistant*
PRESIDENT'S AWARD FOR GLOBAL LEARNING (PAGL)   *2019/1-2019/8*

- Designing a culturally appropriate mobile application to increase mental health literacy and self-care habits among South Korean young adults

COE Full-Time Tenured and Tenure-Track Faculty   *Graduate Research Assistant*
                                                                          2019/9-2019/12

- Data analysis for surveys of graduate programs of education at the Univerisity of Texas at Austin

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)

FLPS project   *Graduate Research Assistant*
IES GRANT   *2021/9-Present*

- Development of FLPS package for Fully-latent Principal Stratification

Embedded Standard Setting (ESS)   *Intern*
CREATIVE MEASUREMENT SOLUTIONS LLC   *2020/6-2020/8*

- Internship for developing Shiny app for Embeded Standard Setting

Embedded Standard Setting (ESS)   *Intern*
CREATIVE MEASUREMENT SOLUTIONS LLC   *2021/6-2021/8*

- Internship for developing ESS package for Embeded Standard Setting

Teaching experience

EDP 380C: Structural Equation Modeling   *Teaching Assistant*
Professor Tiffany Whittaker   *2020/1-2020/5*

EDP 380C: Structural Equation Modeling   *Teaching Assistant*
Professor Tiffany Whittaker   *2021/1-2021/5*

Publications

2016

Sooyong Lee, Eun Soo Lee, & Sehee Hong (2016). Effects of adolescent's career development on labor market outcomes: Applying the two0part 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 Wellfare Research*. 50, 59-85.

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.

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.

Sooyong Lee & Tiffany A. Whittaker (2022). Parallel Process Latent Growth Modeling with Multivariate Confounders/Suppressors *Structural Equation Modeling: A Multidisciplinary Journal*. DOI:10.1080/10705511.2022.2133774.

Sooyong Lee, Kahyun Lee, & Tiffany A. Whittaker (2022). Application of Associative Discrete-Time Survival Analysis Using Latent Transition Specification. *Structural Equation Modeling: A Multidisciplinary Journal*. DOI:10.1080/10705511.2022.2138892.

2023

Sooyong Lee, Suhwa Han, & Seung W. Choi (2023). Bayesian MIMIC for DIF Detection under Violation of Equal Variance Assumption. *Educational and Psychological Measurement*. 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.

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, 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.

Presentation

Presentation

Daniel Lewis & Sooyong Lee (2021-04-01). *A Comparison of Two ESS Cut Score Estimation Algorithms*. National Council on Measurement in Education (NCME), Baltimore, MD, USA.

Garron Gianopulos, Jay Lee, Sangdon Lim, Luping Niu, Sooyong Lee, & Seung W. Choi (2022-04-01). *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 (2022-04-01). *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.

Sooyong Lee, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2022-07-01). *Fully-Latent Principal Stratiication*. International Meeting of the Psychometric Society (IMPS), Bologna, Italy.

Tiffany Whittaker, Hyeon-Ah Kang, Sooyong Lee, Adam Sales (2023-04-13). *Bayesian and Maximum Likelihood Estimation in Fully Latent Principal Stratification*. National Council on Measurement in Education (NCME), Chicago, USA.

Poster

Kejin Lee, Sooyong Lee, & Youngri Lee (2018-05-01). *An Alternative Approach to Discrete-Time Survival Analysis for Meaningful Interpretation*. Modern Modeling Methods conference (MMM), Connecticut, USA.

Sooyong Lee & Sehee Hong (2018-07-01). *Exploration of LCA conditions in Latent Class with Low Proportion*. International Meeting of the Psychometric Society (IMPS), New York, USA.

Sooyong Lee & Tiffany A. Whittaker (2020-04-01). *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 & Suhwa Han (2020-07-01). *Item selection and trait estimation methods in CAT with item leakage*. International Meeting of the Psychometric Society (IMPS), Maryland, USA.

Sooyong Lee, Suhwa Han, & Seung W. Choi (2021-04-01). *DIF Detection with Zero-Inflation under the Mixture Modeling Framework*. American Educational Research Association (AERA), Virtual.

Program

Embeded Standard Setting
Shiny application
2021
- `https://sooyonglee.shinyapps.io/ESS_test/`

GRshiny: Graded response model
Shiny application
2022
- `https://sooyonglee.shinyapps.io/GRShiny/`

Embeded Standard Setting   *R package*
- `https://sooyongl.github.io/EmStanS/`   *2022*

maat package   *R package*
- `https://choi-phd.github.io/maat/`   *2022*

flps package   *R package*
- `https://sooyongl.github.io/flps/`   *2022*

GRshiny package   *R package*
- `https://sooyongl.github.io/GRShiny/`   *2023*

clavaan package   *R package*
- `https://github.com/sooyongl/clavaan`   *2023*

Fellowship & Awards

2020-21 William Hays Endowed Fellowship   *Fellowship*
2021-22 Benjamin & Dorothy Fruchter Excellence Award   *Award*