

# Sooyong Lee | PhD

Educational Psychology, The University of Texas at Austin

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## Professional Summary

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I am a psychometrician with expertise in applying modern statistical theories and techniques. My research interests are in the development and application of statistical models such as such as structural equation modeling (SEM), multilevel modeling (MLM), and item response theory (IRT). Recently, I have focused on Bayesian estimation to model the relationships among variables.

## Education

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**The University of Texas at Austin**

*Ph.D.*

**Austin, Texas**

*2017-Present*

○ Major in Quantitative Methods

**Korea University**

*M.A.*

**Seoul, Republic of Korea**

*2014-2017*

○ Major in Educational Statistics and Measurement

## Research experience

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**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 University 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 Embedded Standard Setting

## **Embedded Standard Setting (ESS)**

*Creative Measurement Solutions LLC*

**Intern**

2021/6-2020/8

- Internship for developing ESS package for Embedded Standard Setting

## **Teaching experience**

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### **Structural Equation Modeling**

*Professor Tiffany Whittaker*

### **Teaching Assistant**

2020/1-2020/5

### **Structural Equation Modeling**

*Professor Tiffany Whittaker*

### **Teaching Assistant**

2021/1-2021/5

## **Publications**

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### **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.

### **2022**

**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.

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.

**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.

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

**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*.

### **2023**

**Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Fully-Latent Principal Stratification. *The Annual Meeting of the Psychometric Society* (in print)

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

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. *Structural Equation Modeling: A Multidisciplinary Journal* (in review)

**Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Comparison

between Bayesian or ML in FLPS with Small Sample Sizes. (in progress)  
**Sooyong Lee**, Adam Sales, Hyeon-Ah Kang, & Tiffany A. Whittaker (2023). Multidimensional FLPS. (in progress)

## Program

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<b>GRshiny: Graded response model</b>	<b>Shiny application</b> 2022
○ <a href="https://sooyonglee.shinyapps.io/GRShiny/">https://sooyonglee.shinyapps.io/GRShiny/</a>	
<b>Embedded Standard Setting</b>	<b>Shiny application</b> 2021
○ <a href="https://sooyonglee.shinyapps.io/ESS_test/">https://sooyonglee.shinyapps.io/ESS_test/</a>	
<b>maat package</b>	<b>R package</b> 2022
○ <a href="https://cran.r-project.org/web/packages/maat/index.html">https://cran.r-project.org/web/packages/maat/index.html</a>	
<b>FLPS package</b>	<b>R package</b> 2022
<b>clavaan package</b>	<b>R package</b> 2023

## Presentation

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<b>Kejin Lee; Sooyong Lee; Youngri Lee</b>	<b>Connecticut, US</b>
<i>An Alternative Approach to Discrete-Time Survival Analysis for Meaningful Interpretation</i>	2018-05-
○ Modern Modeling Methods conference (MMM)	
<b>Sooyong Lee; Sehee Hong</b>	<b>New York, USA</b>
<i>Exploration of LCA conditions in Latent Class with Low Proportion</i>	2018-07-01
○ International Meeting of the Psychometric Society (IMPS)	
<b>Sooyong Lee; Suhwa Han</b>	<b>Maryland, USA</b>
<i>Item selection and trait estimation methods in CAT with item leakage</i>	2020-07-01
○ International Meeting of the Psychometric Society (IMPS)	
<b>Sooyong Lee; Tiffany A. Whittaker</b>	
<i>Comparison of Three Approaches to Class Enumeration in Growth Mixture Modeling when Time Structures</i>	
○ American Educational Research Association (AERA)	
<b>Sooyong Lee; Suhwa Han; Seung W. Choi</b>	<b>Virtual</b>
<i>DIF Detection with Zero-Inflation under the Mixture Modeling Framework</i>	2021-04-01
○ American Educational Research Association (AERA)	

## Fellowship & Awards

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<b>William Hays Endowed Fellowship</b>	<b>Fellowship</b> 2020-21
<b>Benjamin &amp; Dorothy Fruchter Excellence Award</b>	<b>Award</b> 2021-22