

### Ph.D. STUDENT · QUANTITATIVE METHODS IN PSYCHOLOGY

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Education

**Cornell University** Ithaca, U.S.

#### Ph.D. STUDENT IN PSYCHOLOGY

08. 2023 - current

· Major in Psychology, Minor in Applied Statistics

- Advisor: Dr. Felix Thoemmes
- Related courses: Quantitative methods 1 & 2, Probability model and inference, Studying social inequality with data science, Linear regression

### **Seoul National University**

Seoul, Republic of Korea

03. 2020 - 02. 2022

MA IN EDUCATION

- Major in Educational Measurement and Evaluation
- Advisor: Dr. Sun-Geun Baek
- GPA: 4.3/4.3
- Dean's list for every semester(four times)
- Master's thesis title: The effect of self-directedness on college adjustment through academic resilience
- Related courses: Causal inference, Item response theory, Advanced statistical method for educational research, HLM, SEM

#### **Ewha Womans University**

Seoul, Republic of Korea 03. 2016 - 02. 2020

### **BA IN EDUCATION AND PSYCHOLOGY**

- Major in Education and Psychology
- Undergrad Research Advisor: Dr. Kyoung-Hye Seo
- GPA: 4.13/4.3 Summa cum laude
- Dean's list for every semester(eight times)

### Research Interests \_\_\_\_\_

### Causal Inference

causal mediation analysis; causal graphical model; missing data; instrumental variable

### STRUCTURAL EQUATION MODEL

latent class analysis; fator analysis

# Professional Experience \_\_\_\_\_

**Senior Researcher**, The Korea Chamber of Commerce and Industry

- Developed National Competency Standard test items for vocational high school students
- 08. 2022 • Used Rasch model to analyze the test result
- 03. 2023
- Equated tests using the bookmark method
- Wrote policy reports for vocational education and the way to evaluate students' competencies
- Conferred about upcoming test formula with the Ministry of Education
- Revised the test reflecting the changed national education curriculum

### **Researcher**, Korea Institute for Research in the Behavioral Sciences

• Developed competency and morality test items

01. 2022 -

- Revised and updated norms of tests
- **07. 2022** Provided savvy and individualized feedback to test takers
  - Analyzed personality profile based on CPI test scale
  - Calculated predictive validity and provided it to test taker firms

#### Researcher. Brain Korea 21, Department of Education, Seoul National University

09. 2021 -

- · Analyzed current academic resilience competency of undergraduate school students by using scales
- 01, 2022
- Assisted advisor in developing and validating scales
- Completed educational methodology workshops

### Researcher, Jeju Province

01. 2021 -

- Proposed a new educational welfare policy for lower-income families • Set criteria for welfare beneficiaries
- 05. 2021
- Attended meetings for educational welfare budget adjustment
- Wrote policy reports

# Research Assistant, Chungnam National University

01. 2021 -

- Conducted Focus Group Interviews
- 03, 2021
- Developed Science Experts' Competency Items in situational judgement test form
- · Analyzed previous studies

### Publications

#### **PUBLISHED**

- Kim, J & Thoemmes, F. J 2025. Causal assumptions of the two-wave longitudinal mediation model. Multivariate Behavioral Research. 10.1080/00273171.2025.2443360 (Abstract)
- Baek, S. G., Kim, J(corresponding author), & Park, H. 2021. Development and validation of the academic resilience scale for undergraduate students using scenario method. The SNU Journal of Education Research, 30(3), 29-57.

### **UNDER REVIEW**

- Kim, J., Baek, J. W., Lee, H. S(co-first author)., & Choi, Y. J(second author). Development and Validation of the Teacher Competency Diagnostic Scale in Online Learning Environment for Preservice Teacher Using Scenario Method
  - ► Have done focus group interviews with both pre-service teachers and in-service teachers
  - ► Surveyed 600 pre-service teachers to prove validity
  - ► Conducted confirmatory factor analysis

#### IN PROGRESS

- Kim, J., & Thoemmes, F. J. Graphical Criteria of Recoverability under Not Missing at Random Case
  - ▶ Distinguish subtypes of missing-not-at-random according to their bias occurrence using a causal graphical model
- Kim, J., & Thoemmes, F, J. Recovering Causal Effects via the Front-Door Approach
  - ▶ Distinguish subtypes of missing-not-at-random according to their bias occurrence using a causal graphical model
- Kim, J., & Thoemmes, F, J. Causal Assumptions for Two-Wave Longitudinal Mediation Analysis
  - Confirm existing assumptions for two-wave longitudinal mediation using causal graphical model

### Kim, J., Thoemmes, F, J., & Ong, A. Systematic Literature Review for Mediation Analysis

- ► Systematically analyze current trends of conducting mediation analysis
- ► Suggest appropriate ways for mediation analysis
- ►OSF link: osf.io/w64xn

### Kim, J.& Kim, Y. Statistical Evidence of Sex Discrimination Using Instrumental Inequality

▶Defined the notion of discrimination using DAG

▶ Proved whether there is statistical evidence of discrimination utilizing instrumental variable on a discrimination case

### **REVIEWER**

#### ▶ Psychological Methods

### Presentations.

\* presenting author

### **ORAL PRESENTATIONS**

- **Kim, J**., Baek, J., & Lee, H. 2025. Development of the Pre-service Teacher Competency Scale in an Online Learning Environment. Oral Presentation: American Educational Research Association, Denver, U.S. (Upcoming)
- \*Kim, Y., & **Kim, J**. 2022. Statistical Evidence for Inequality: Applying Causal Restriction of Instrumental Variable. Oral Presentation: Korea Inequality Research Network Conference, Seoul, Korea.

## **POSTER PRESENTATIONS**

- \*Kim, J., & Thoemmes, F. 2025. Graphical Criteria of Recoverability under Not Missing at Random Case. Poster: 2025 American Causal Inference Conference (ACIC). Detroit, U.S. (Upcoming)
- \*Kim, J., & Thoemmes, F. 2024. Causal Assumptions of the Two-Wave Longitudinal Mediation Model . Poster: 2024 The Society of Multivariate Experimental Psychology. Ithaca, U.S.
- \*Kim, J., & Kim, Y. 2024. Credible Evidence of Gender Discrimination Using Instrumental Inequality. Poster: 2024 American Causal Inference Conference (ACIC). Seattle, U.S. (Upcoming)
- \*Kim, J. 2022. Table 2 Fallacy in Latent Class Analysis. Poster: 22nd International Conference on Educational Research (ICER). Seoul, Korea.
- Baek, J., \*Kim, J., Lee, H., Choi, Y.& Kim, S. 2022. Pre-Service Teachers' Experiences and Perceptions of Teacher Preparation Programs: How Are Teachers Educated to Teach Virtually?. Poster: 22nd International Conference on Education Research (ICER). Seoul, Korea.
- \*Kim, J., & Park, H. 2022. Measurement and Analysis of S University students' academic resilience. Online Poster: SNU BK21 Seminar
- \*Kim, J., Nam, C., & Seo, Y. 2017. A Narrative Exploration of the EBS Internet Lecture Experience of Low-Income High School Students. Poster: Korea Educational Research Society, Daejeon, Korea.

# Awards, Fellowships, & Grants \_\_\_\_\_

| 2024       | Appenzeller Memorial Fellowship, Ewha Foundation   | 3,000\$  |
|------------|--|----------|
| 2023       | Sage Fellowship, Cornell University  | 64,186\$ |
| 2021       | Scholarship, Korea Association of University Women  Excellence RA Award, Seoul National University Gwanak Residence Hall |          |
| 2020       | Kang's Grant, Kang's institution   |          |
| 2019, 2020 | Career Building Scholarship, Ewha Womans University  |          |
| 2019       | Liberal Effective Artistic Practice Project Grant, Ewha Womans University  |          |
| 2018, 2019 | Humanities 100 Years Scholarship, Korea Student Aid Foundation   |          |
| 2017, 2018 | Wonju Talent Development Award, Wonju Province   |          |
| 2016       | Hyundai Motor Hope Scholarship, Hyundai Foundation   |          |

| Mentorin                     | g   |                           |
|------------------------------|---|---------------------------|
| June 2024<br>-August<br>2024 | Harvard Summer Student Research Program, Research Mentor  • Democratize access to research for underprivileged students around the globe  |                           |
|                              | <ul> <li>Help students find research questions</li> <li>Guide students to learn causal inference using literature that a mentor chose</li> </ul>  | Harvard University        |
|                              | Gwanak Residence Hall, Resident Advisor   |                           |
| June 2020<br>-Dec 2021       | <ul> <li>Advised undergraduate students to well adapt in college</li> <li>Prepared Gwanak residence hall festival</li> <li>Assisted students who got Covid-19</li> <li>Advised international students to overcome psychological problems</li> </ul>             | Seoul National Univ       |
|                              | Dream School for Children of Traffic Accident Victims, Dream Mentor   |                           |
| Spring 2016<br>-Fall 2016    | <ul> <li>Planned an individualized career development program</li> <li>Assisted a child of traffic accident victims in overcoming academic difficulties</li> <li>Provided a child of traffic accident victims opportunities to meet one's role model</li> </ul> | Hyundai Motor             |
| Teaching                     | Experience  |                           |
| Fall 2024                    | Causal Mediation Analysis, Teaching Assistant   |                           |
|                              | <ul> <li>Assisted students in utilizing R program</li> <li>Provided relevant papers during the lecture</li> <li>Led students having discussion</li> </ul>   | GESIS Workshop<br>Series  |
| Spring 2021                  | Multiple Regression Course: Center of Teaching and Learning, Teaching Assistant   |                           |
|                              | <ul> <li>Assisted students in utilizing R program</li> <li>Provided appropriate supplementary material for each student</li> </ul>  | Seoul National Univ       |
| Spring 2019                  | Moral education, Practicing Teacher   | C-1                       |
|                              | <ul> <li>Mentored middle school students</li> <li>Taught students ethics using flipped learning</li> </ul>  | Sahmyook middle<br>school |
| Spring 2017<br>- Fall 2018   | Math, Afterschool Teacher   | C                         |
|                              | <ul> <li>Taught low-income students mathematics</li> <li>Delivered students a special lecture about career and college life</li> </ul>  | Samsung Dream<br>Class    |
| Spring 2018                  | Korean for North Korean Defectors, Afterschool Teacher  |                           |
|                              | <ul> <li>Taught North Korean defector students Korean to take the Korean Fluency test</li> <li>Advised a delinquent student as a classroom teacher</li> <li>Planned a special career lecture with experts from diverse fields</li> </ul>                        | Yeomyeng school           |
| Spring 2017                  | English, Afterschool Teacher  |                           |
|                              | Taught low-income students English  | Doksan high school        |
| Eall 2010                    | Korean as Second Language, Tutor  | Korea Student Aid         |
| Fall 2016                    | Taught a multicultural student Korean   | Foundation                |
| Outreach                     | & Professional Development  |                           |

## STATISTICAL LANGUAGE

► R, SPSS, Amos, ŁTĘX

### LANGUAGE

► Native: Korean

► Fluent: English

## **LICENSURE**

► Teacher's Certificate for the Secondary School Teacher of Moral Education, Ministry of Education, Republic of Korea.

# EXTRA CURRICULAR ACTIVITIES

- ➤ Curriculum Developing Club(2018-2019)
- ➤ Student Council in Ewha Womans University(2016-2018)
- ► Leader of Educational Academic Society in Ewha Womans University(2016-2017)