

# Ji Hoon Ryoo, Ph.D.

## A. Personal Data

### A.1 Current position (Feb. 2020 to Current)

*Associate Professor*

Department of Education  
College of Educational Sciences  
Yonsei University, South Korea

### Contact information

Mailing address: 512-Ho, Educational Sciences Hall,  
50 Yonsei-Ro, Seodaemun-Gu,  
Seoul, 03722, Republic of Korea  
Email/Phone: [ryoox001@yonsei.ac.kr](mailto:ryoox001@yonsei.ac.kr) / 02-2123-3174

### A.2 Research interests

1. **Quantitative Methods:** (1) Analysis of Longitudinal and Multilevel Data, (2) Structural Equation Modeling, (3) Mixture Modeling, (4) Statistical/Machine Learning, and (5) Psychometrics
2. **Research Outcomes:**
  - (1) [CLASS \(Collaborative Learning Analytics Software System\) platform](#) as a co-developer/founder
  - (2) [gscaLCA \(R package\)](#) as R package contributor
  - (3) [MOCA \(Measure of Cognitive Ability\)](#) as an assessment developer
  - (4) [Imaging Genetics Structural Equation Modeling](#) as a quantitative methodologist

### A.3 Education

Ph.D. in Quantitative Methods in Education, Educational Psychology

University of Minnesota, Twin Cities, Minnesota, June 2010

*Dissertation:* Model Selection with the Linear Mixed Effects Models for Longitudinal Data

*Dissertation Advisor:* Dr. Jeffrey Long

*Dissertation Committee:* Dr. Mark Davison, Dr. Michael Harwell, and Dr. Melanie Wall

M.S. in Statistics (2010); M.S. in Mathematics (2006)

University of Minnesota, Twin Cities, Minnesota

*Thesis:* New Variable Selection Criteria in Model Selection

*Thesis Committee:* Dr. Snigdhanu Chatterjee (advisor), Dr. Galin Jones and Dr. Jeffrey Long

M.A. in Mathematics

University of Maine, Orono, Maine, May 2001

*Thesis:* Identities for the Multiple Zeta Values using the Shuffle Operator

*Thesis Committee:* Dr. David Bradley (advisor), Dr. Henrik Bresinsky and Dr. Chip Snyder

B.S. in Mathematics, Minor in Mathematics Education with a teacher's license

Kyungpook National University, Daegu, Korea, Feb. 1999

### A.4 Working experience

Aug. 2018 – Jan. 2020

University of Southern California, Los Angeles, CA

*Associate Professor*

Department of Pediatrics and Preventive Medicine

Keck School of Medicine

*Director of Biostatistics Core*

The Saban Research Institute, Children's Hospital LA

Aug. 2012 – July 2018

University of Virginia, Charlottesville, VA

*Assistant Professor*

Research, Statistics and Evaluation Program

Curry School of Education

July 2010 – July 2012

University of Nebraska, Lincoln, NE

*Postdoctoral Research Associate (Mentors: Dr. James Bovaird and Dr. Sue Sheridan)*

Statistics and Research Methodology Unit

Nebraska Center for Research on Children, Youth, Families, and Schools

## B. Scholarship

### B.1 Publications († for corresponding authorship)

1. Bender, J. M., Lee, Y., **Ryoo, J. H.**, Boucke, L., Yan, P., Sun, M., Ball, T. S., Rugolotto, S., & She, R. (2021). A longitudinal study of assisted infant toilet training during the first year of life. *Journal of Developmental and Behavioral Pediatrics*, 42(8), 648-655. <http://doi.org/10.1097/DBP.0000000000000936>
2. Bradshaw, C. P., Pas, E. T., Musci, R. J., Kush, J., & **Ryoo, J. H.** (2021). Can policy promote adoption or outcomes of evidence-based prevention programming?: A case illustration of positive behavior interventions and support. *Prevention Science*, 22, 986-1000. <https://doi.org/10.1007/s11121-021-01257-0>
3. Tai, R. H., **Ryoo, J. H.**, Kong, X., Mitchell, C., Skeeles-Worley, A. D., Almarode, J. T., Maltese, A. V. & Dabney, K. P. (2021). Gauging Informal STEM Youth Program Impact: A Conceptual Framework and a Measurement Instrument. *Journal of Youth Development*, 16(4), 103-133. <https://doi.org/10.5195/jyd.2021.981>
4. Cha, I., & †**Ryoo, J. H.** (2021). Application of fractional polynomials to model non-linear trajectories of English achievement. *Journal of Educational Evaluation*, 34(2), 385-408.
5. **Ryoo, J. H.**, et al. (2021). Participants' satisfaction with the atopic dermatitis education program: Assessing the impact of each content using structural equation modeling. *Annals of Dermatology*, 33(3), 237-244. <https://doi.org/10.5021/ad.2021.33.3.237>
6. Jang, B. G., †**Ryoo, J. H.**, & Conradi, K. (2021). Latent profiles of attitudes toward print and digital reading among adolescents. *Reading and Writing: An Interdisciplinary Journal*, 34, 1115-1139. <https://doi.org/10.1007/s11145-020-10104-7>
7. Demaray, M. K., Malecki, C. K., **Ryoo, J. H.**, & Summers, K. H. (2021). Deconstructing bullying roles: A longitudinal latent profile analysis of bullying role behaviors for students in grades 4 through 12. *Journal of School Psychology*, 86(4), 32-48.
8. Hwang, H., Cho, G., Jin, M. J., **Ryoo, J. H.**, Choi, Y., & Lee S. H. (2021). A knowledge-based multivariate statistical method for examining gene-brain-behavioral/cognitive relationships: Imaging genetics generalized structured component analysis. *PLOS ONE*, 16(3), e0247592.
9. Lee, M., **Ryoo, J. H.**, & Walker, A. (2021). School principals' time use for interaction with individual students: Macro contexts, organizational conditions, and student outcomes. *American Journal of Education*, 127(2), 303-344. <https://doi.org/10.1086/712174>
10. Plows, J. F., Berger, P. K., Jones, R., Yonemitsu, C., **Ryoo, J. H.**, Alderete, T. L., Bode, L., & Goran, M. I. (2020). Associations between human milk oligosaccharides (HMOs) and eating behaviour in Hispanic infants at 1 and 6 months of age. *Pediatric Obesity*, e12686. <http://doi.org/10.1111/ijpo.12686>
11. Lee, M., **Ryoo, J. H.**, Chung, M., Anderson, J. G., Rose, K. M., & Williams, I. C. (2020). Effective interventions for depressive symptoms among caregivers of people with dementia: A systematic review and Meta-Analysis. *Dementia: International Journal of Social Research and Practice*, 19(7), 2368-2398. <https://doi.org/10.1177/1471301218822640>
12. Rho, J., & †**Ryoo, J. H.** (2020). Application of alignment method for measurement invariance testing and latent mean analysis of student stress scale. *Journal of Educational Evaluation*, 33(4), 889-913.
13. Park, S., Kim, S., & †**Ryoo, J. H.** (2020). Latent class regression using fuzzy clusterwise generalized structured component analysis. *Mathematics*, 8(11), 2076. <https://doi.org/10.3390/math8112076>

14. Lee, M., **Ryoo, J. H.**, Campbell, Hollen, P. J., & Williams, I. C. (2020). The impact of performing medical/nursing tasks at home among caregivers of individuals with cognitive impairment. *Journal of Applied Gerontology*, 39(11), 1203-1212. <https://doi.org/10.1177/0733464819879014>
15. †**Ryoo, J. H.**, Park, S., Kim, S., & Ryoo, H. S. (2020). Efficiency of cluster validity indexes in fuzzy clusterwise generalized structured component analysis. *Symmetry*, 12, 1514. <https://dx.doi.org/10.3390/sym12091514>
16. Chang, N., Yeh, M. Y., Raymond, J., Geffner, M., **Ryoo, J. H.**, & Chao, L. C-C. (2020). Glycemic control in youth-onset type 2 diabetes correlates with weight loss. *Pediatric Diabetes*, 21, 1116-1125. DOI: 10.1111/pedi.13093
17. Berger, P. K., Plows, J. F., Jones, R. B., Alderete, T. L., Yonemitsu, C., **Ryoo, J. H.**, Bode, L., & Goran, M. I. (2020). Human milk oligosaccharides and Hispanic infant weight gain in the first 6 months. *Obesity*, 28(8), 1519-1525. <https://doi.org/10.1002/oby.22884>
18. Peterson, B. S., Rosen, T., Dingman, S., Toth, Z., Sawardekar, S., Hao, X., Liu, F., Xu, D., Dong, Z., Peterson, J. B., **Ryoo, J. H.**, Serino, D., Branch, C., & Bansal, R. (2020). Associations of maternal prenatal drug abuse with measures of newborn brain structure, tissue organization, and metabolite concentrations. *JAMA Pediatrics*, 174(9), 831-841. doi:10.1001/jamapediatrics.2020.1622
19. †**Ryoo, J. H.**, Tai, R. H., & Skeeles-Worley, A. D. (2020). Examination of longitudinal invariance on a framework for observing and categorizing instructional strategies. *Research in Science Education*, 50(2), 489-504. <https://doi.org/10.1007/s11165-018-9698-7>
20. Pullen, P. C., Ashworth, K. E., & **Ryoo, J. H.** (2020). Prevalence rates of students identified for special education and their interstate variability: A longitudinal approach. *Learning Disability Quarterly*, 43(2), 88-100. <https://doi.org/10.1177/0731948719837912>
21. †**Ryoo, J. H.**, Park, S., & Kim, S. (2020). Categorical latent variable modeling utilizing fuzzy clustering generalized structured component analysis as an alternative to latent class analysis. *Behaviormetrika*, 47, 291-306. <https://doi.org/10.1007/s41237-019-00084-6>
22. Jung, K., Cho, S. S., Lee, J., Kim, S., & **Ryoo, J. H.** (2020). An illustrative application of generalized structured component analysis for brain connectivity research. *Behaviormetrika*, 47, 273-289. <https://doi.org/10.1007/s41237-019-00080-w>
23. Berger, P. K., Plows, J. F., Jones, R. B., Alderete, T. L., Yonemitsu, C., Poulsen, M., **Ryoo, J. H.**, Peterson, B. S., & Goran, M. I. (2020). Human milk oligosaccharide 2'-fucosyllactose links feedings at 1 month to cognitive development at 24 months in infants of normal and overweight mothers. *PLOS ONE*. <https://doi.org/10.1371/journal.pone.0228323>
24. Hong, S., **Ryoo, J. H.**, Noh, J., Lee, M., & Shin, J. (2020). The mediation effect of preservice teacher attitude toward inclusion for students with autism in South Korea: A structural equation modeling approach. *International Journal of Inclusive Education*, 24(1), 15-32. <https://doi.org/10.1080/13603116.2018.1449021>
25. Lee, M., **Ryoo, J. H.**, Crowder, J., Byon, H. D., & Williams, I. C. (2019). A systematic review and meta-analysis on effective interventions for health-related quality of life among caregivers of people with dementia. *Journal of Advanced Nursing*, 76(2), 475-489. <https://doi-org.libproxy2.usc.edu/10.1111/jan.14262>
26. Lee, M., **Ryoo, J. H.**, Campbell, C., Hollen, P. J., & Williams, I. C. (2019). Exploring the challenges of medical/nursing tasks in home care experienced by caregivers of old adults with dementia: An integrative review. *Journal of Clinical Nursing*, 28, 4177-4189. <https://onlinelibrary.wiley.com/doi/full/10.1111/jocn.15007>

27. Berger, P., Plows, J., Jones, R., Pollock, N. K., Alderete, T., **Ryoo, J. H.**, & Goran, M. (2019). Maternal blood pressure mediates the association between maternal obesity and infant weight gain in early postpartum. *Pediatric Obesity*. 2019;14:e12560. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jpo.12560>
28. Lupo, S., Tortorelli, L., Invernizzi, M. A., **Ryoo, J. H.**, & Strong, J. Z. (2019). An exploration of differences in text features and the influence on adolescents' comprehension. *Reading Research Quarterly*, 54(4), 457-479. <https://doi.org/10.1002/rrq.247>
29. Jang, B. G., & **Ryoo, J. H.** (2019). Multiple dimensions of adolescents' reading attitudes and their relationship with reading comprehension. *Reading and Writing: An Interdisciplinary Journal*, 32, 1769-1793. <https://doi.org/10.1007/s11145-018-9926-6>
30. Pas, E. T., **Ryoo, J. H.**, Musci, R., & Bradshaw, C. (2019; JSP Article of the Year). The effects of a state-wide scale-up of school-wide positive behavior intervention and supports on behavioral and academic outcomes: A quasi-experimental examination. *Journal of School Psychology*, 73, 41-55. <https://doi.org/10.1016/j.jsp.2019.03.001>
31. **Ryoo, J. H.**, Kwon, J., & Lee, D. Y. (2018). Changes in classroom actions of in-service middle school mathematics teachers due to self-evaluation. *International Journal of Advanced Culture Technology*, 6(4), 131-142. <https://doi.org/10.17703/IJACT2018.6.4.131>
32. †**Ryoo, J. H.**, Wang, C., Swearer, S., Hull, M., & Shi, D. (2018). Longitudinal model building using latent transition analysis: An example of using school bullying data. *Frontiers in Psychology – Quantitative Psychology and Measurement*, 9:675. <https://doi.org/10.3389/fpsyg.2018.00675>
33. †**Ryoo, J. H.**, Molfese, V. J., & Brown, E. T. (2018). Strategies to encourage mathematics learning in early childhood: Discussions and brainstorming promote strong performance. *Early Education and Development*, 29(4), 603-617. <https://doi.org/10.1080/10409289.2018.1442095>
34. †**Ryoo, J. H.**, Hong, S., Bart, W., Shin, J., & Bradshaw, C. (2018; Top Downloaded Article 2017-2018). Investigating the effect of SW-PBIS on student learning and behavioral problems in elementary and middle schools. *Psychology in the Schools*, 55, 629-643. <https://doi.org/10.1002/pits.22134>
35. †**Ryoo, J. H.**, Konold, T. R., Long, J. D., Molfese, V. J., & Zhou, X. (2017). Nonlinear growth mixture models with fractional polynomials: An illustration with early childhood mathematics ability. *Structural Equation Modeling: A Multidisciplinary Journal*, 24(6), 897-910. <http://dx.doi.org/10.1080/10705511.2017.1335206>
36. Hong, S., **Ryoo, J. H.**, Kwak, N., & Lee, D. Y. (2017). Measuring school effectiveness via VAMs and examining its psychometrics. *Secondary Institute of Education*, 65(3), 661-685.
37. †**Ryoo, J. H.**, Long, J. D., Welch, G. W., Reynolds, A., & Swearer, S. M. (2017). Fitting the fractional polynomial model into non-Gaussian longitudinal data. *Frontiers in Psychology – Quantitative Psychology and Measurement*, 8:1431. <http://doi.org/10.3389/fpsyg.2017.01431>
38. †**Ryoo, J. H.**, Wang, C., Swearer, S., & Part, S. (2017). Investigation of transitions in bullying/victimization statuses of gifted and general education. *Exceptional Children*, 83(4), 396-411. <http://journals.sagepub.com/doi/full/10.1177/0014402917698500>
39. Hong, S., **Ryoo, J. H.**, Park, S., & Yoo, J. (2017). Attitudes of general education and special education teachers toward inclusive education: A causal inference model. *Journal of Learner-Centered Curriculum and Instruction*, 17(24), 321-342. <http://dx.doi.org/10.22251/jlcci.2017.17.24.321>

40. Park, S., Hong, S., Yoo, J., & **Ryoo, J. H.** (2017). Investigation of factors affecting general education teacher satisfaction toward inclusion via a structural equation model. *Journal of Learner-Centered Curriculum and Instruction*, 17(14), 337-356. <http://dx.doi.org/10.22251/jlcci.2017.17.14.337>
41. †**Ryoo, J. H.**, & Hwang, H. (2017). Model evaluation in the generalized structured component analysis using the confirmatory tetrad analysis. *Frontiers in Psychology – Quantitative Psychology and Measurement*, 8:916. <https://doi.org/10.3389/fpsyg.2017.00916>
42. Wang, C., **Ryoo, J. H.**, Swearer, S., Turner, R. H., & Goldberg, T. (2017). Longitudinal relationships of bullying and moral disengagement among adolescents. *Journal of Youth and Adolescence*, 46(6), 1304-1317. [doi:10.1007/s10964-016-0577-0](https://doi.org/10.1007/s10964-016-0577-0)
43. Park, S., Callahan, C. M., & **Ryoo, J. H.** (2016). Assessing gifted students' beliefs about intelligence with a psychometrically defensible scale. *Journal for the Education of the Gifted*, 39(4), 288-314. [doi:10.1177/0162353216671835](https://doi.org/10.1177/0162353216671835)
44. †**Ryoo, J. H.**, Molfese, V., Brown, E. T., Karp, K. S., Welch, G., & Bovaird, J. A. (2015). Examining factor structures on the Test of Early Mathematics ability – 3: A longitudinal approach. *Learning and Individual Differences*, 41, 21-29. <http://dx.doi.org/10.1016/j.lindif.2015.06.003>
45. †**Ryoo, J. H.**, Wang, C., & Swearer, S. (2015). Examination of the change of latent statuses in bullying behaviors across time. *School Psychology Quarterly*, 30(1), 105-122. <http://dx.doi.org/10.1037/spq0000082>
46. †**Ryoo, J. H.**, Molfese, V., Heaton, R., Zhou, X., Brown, E. T., Prokasky, A., & Davis, E. (2014). Early Mathematics Skills from Prekindergarten to First Grade: Score Changes and Ability Group Differences in Kentucky, Nebraska, and Shanghai Samples. *Journal of Advanced Academics*, 25(3), 162-188. [doi:10.1177/1932202X14538975](https://doi.org/10.1177/1932202X14538975)
47. Minke, K., Sheridan, S., Kim, E., **Ryoo, J. H.**, & Koziol, N. (2014). Congruence in Parent-Teacher Relationships: The Role of Shared Perceptions. *The Elementary School Journal*, 114(4), 527-546. <http://www.jstor.org/stable/10.1086/675637>
48. Sheridan, S. M., **Ryoo, J.**, Garbacz, S. A., Kunz, G. M., & Chumney, F. (2013; JSP Article of the Year). The Efficacy of Conjoint Behavioral Consultation on Parents and Children in the Home Setting: Results of a Randomized Controlled Trial. *Journal of School Psychology*, 51(6), 717-733. <http://dx.doi.org/10.1016/j.jsp.2013.09.003>
49. Hong, S. & **Ryoo, J. H.** (2012). The Effects of SW-PBIS on the Academic Achievement of Students with Intellectual and Developmental Disabilities. *Journal of Special Education: Theory and Practice*, 13(3), 243-267.
50. †**Ryoo, J. H.** (2011). Model Selection with the Linear Mixed Model for Longitudinal Data. *Multivariate Behavioral Research*, 46(4), 598-624. [doi:10.1080/00273171.2011.589264](https://doi.org/10.1080/00273171.2011.589264)
51. Hong, S. & **Ryoo, J.** (2011). The Effect of Performance Pay on School-level Student Achievement: Evidence for Minnesota Public Schools. *Teacher Education Research*, 50(2), 181-199.
52. Hong, S., **Ryoo, J.**, & Bart, W. (2011). Longitudinal Analysis of Performance Pay for Special Education Student Group Achievement. *Korean Society of Special Education*, 43(4), 219-236.
53. Long, J. D. & **Ryoo, J.** (2010). Using Fractional Polynomials to Model Nonlinear Trends in Longitudinal Data. *British Journal of Mathematical and Statistical Psychology*, 63(1), 177-203. [doi:10.1348/000711009X431509](https://doi.org/10.1348/000711009X431509)

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54. Hong, S. & **Ryoo, J.** (2010). Analysis of the Effect of Performance Pay on School Performance in Math and Reading Assessments Using Propensity Score Models. *Journal of Educational Administration*, 28(2), 131-147.
55. Hong, S. & **Ryoo, J.** (2010). The Effect of Performance Pay on Special Education Student Group Achievement. *Special Education Research*, 9(1), 5-19.
56. Bowman, D., Bradley, D. M., & **Ryoo, J.** (2003). Some multi-set inclusions associated with shuffle convolutions and multiple zeta values. *European Journal of Combinatorics*, 24(1), 121-127.  
[doi:10.1016/S0195-6698\(02\)00117-8](https://doi.org/10.1016/S0195-6698(02)00117-8)

### B.2 R packages

1. **Ryoo, J.**, Park, S., Kim, S., & Hwang, H. (2019). gscLCA: Generalized Structure Component Analysis – Latent Class Analysis. R package version 0.0.2. <https://CRAN.R-project.org/package=gscLCA>

### B.3 Books and book chapters († for corresponding authorship)

1. **Ryoo, J. H.**, & Pullen, P. C. (2017). Regression discontinuity design for longitudinal data, cross-sectional data, and intervention research. In James M. Kauffman, Daniel P. Hallahan, & Paige C. Pullen (Eds.), *Handbook of Special Education* (2nd ed., pp. 137-150).
2. †**Ryoo, J. H.**, & Long, J. D. (Book project in preparation). *Longitudinal Data Analysis for Behavioral Sciences in the Perspective of Growth Modeling*. SAGE.
3. †**Ryoo, J. H.**, & Kim, S. W. (Book project in preparation). *Fundamentals in Statistics I and II*. Hakiisa (Korean).

### B.4 Papers under review and/or revision († for corresponding authorship)

1. †**Ryoo, J. H.**, Park, S., Suh, H., Choi, J., & Kwon, J. Development of a new measure of cognitive ability and its psychometric properties. *SAGE Open*. [JCR Q4 SSCI journal]
2. †**Ryoo, J. H.**, Park, S., Kim, S., & Hwang, H. gscLCA in R: Fitting fuzzy clustering analysis using generalized structured component analysis. *CMES-Computer Modeling in Engineering and Science*. [JCR Q3 SCIE journal]
3. Kim, J. H., Kwon, J., & †**Ryoo, J. H.** Investigating the effect of school type and gender on adolescent's mindsets. *Psychology in the Schools*. [JCR SSCI Q3 journal]
4. Tai, R., †**Ryoo, J. H.** Skeeles-Worley, A., & Dabney, K. (Re-)Designing a measure of student's attitudes toward science: A longitudinal psychometric approach. *International Journal of STEM Education*. [JCR SSCI Q1 journal]
5. **Ryoo, J. H.**, et al. Predicting the patient-burden of chronic pruritus using patients' descriptions of itch in adults. *Journal of the American Academy of Dermatology*. [JCR SCIE Q1 journal]
6. Cha, I., & †**Ryoo, J. H.** Fitting linear and nonlinear growth models within accelerated longitudinal designs. *Korean Journal of Educational Research*.

### B.5 Grants funded

1. Title: [Impacts of STEM Experiences on Informal STEM Learning](#)  
Funding Agency: National Science Foundation  
Project Members: Robert H. Tai (PI), Prof., University of Virginia  
**Ji Hoon Ryoo (Co-PI)**, Associate Prof., University of Southern California  
Katherine Dabney (Co-PI), Assistant Prof., Virginia Commonwealth University  
Project Budget: 687,771 USD (from July 15, 2018 to June 30, 2023)

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2. Title: Equity of Educational Opportunity in Higher Education focusing on Fundamental Liberal Education: Cultivating of People on the 4<sup>th</sup> Industrial Revolution  
Funding Agency: Korean National Institute for General Education  
Project Members: **Ji Hoon Ryoo (PI)**, Associate Prof., Yonsei University  
Jongkyum Kwon (Co-I), Associate Prof., Gyeongsang National University  
Project Budget: 25,000 USD (from October 1, 2021 to December 31, 2021)

### B.6 Funded Grants Completed

3. Title: [Developing Pre-service Teachers' Pedagogical Content Knowledge for Engineering Design Integrated Science Teaching, and Assessing the Impact on Student Learning](#)  
Funding Agency: National Science Foundation  
Project Members: Frackson Mumba (PI), Associate Prof., University of Virginia  
**Ji Hoon Ryoo (Co-PI)**, Associate Prof., University of Southern California  
Robert Bailey (Co-PI), Associate Prof., University of Virginia  
Jennifer Chiu (Co-PI), Assistant Prof., University of Virginia  
Project Budget: 325,000 USD (from August 1, 2016 to ~~July 31, 2019~~ → July 31, 2021)
4. Title: [Developing Teaching Assistants' Pedagogical Knowledge of Inquiry Science Teaching & Instructional Leadership Skills, and Assessing the Impact on Student Learning](#)  
Funding Agency: National Science Foundation  
Project Members: Frackson Mumba (PI), Associate Prof., University of Virginia  
Robert H. Tai (Co-PI), Prof., University of Virginia  
Lindsay Wheeler (Co-PI), Instructor, University of Virginia  
Maxim Bychkov (Co-PI), Instructor, University of Virginia  
Claire Cronmiller (Co-PI), Prof., University of Virginia  
**Ji Hoon Ryoo (Senior personnel)**, Associate Prof., University of Southern California  
Project Budget: 599,482 USD (from September 1, 2016 to ~~August 31, 2019~~ → August 31, 2021)
5. Title: Decoding the IB Teacher Professional: A Comparative Study of Australia, Austria, Canada, China, Chinese Taipei, Denmark, South Korea, Turkey, and United States  
Funding Agency: The International Baccalaureate (IB)  
Project Members: Moosung Lee (Project Leader), Prof., University of Canberra  
Ewan Wright (Co-PL), Assistant Prof., The Education University of Hong Kong  
**Ji Hoon Ryoo (Co-I)**, Associate Prof., University of Southern California  
Mehmet Şükrü Bellibaş (Co-I), Associate Prof., Adiyaman University  
Ben Faigen (Co-I), Lecturer, Monash University  
Sedat Gümüş (Co-I), Associate Prof., Aarhus University  
Warangkana Lin (Co-I), Consultant in Internationalization at I-Shou University  
Paul Tarc,(Co-I), Associate Prof., Western University  
Project Budget: 85,000 USD (from August 01, 2019 to ~~May 30, 2020~~ → May 30, 2021)
6. Title: [Evaluating Maryland State Policies to Improve School Climate](#)  
Funding Agency: Institute of Education Sciences  
Project Members include: Catherine Bradshaw (PI), Prof., University of Virginia  
Andrea Alexander (Co-PI), Specialist for School Climate Initiatives,  
Maryland State Department of Education  
Elise Pas (Co-PI), Assistant Scientist, Johns Hopkins University  
**Ji Hoon Ryoo (Co-I)**, Associate Prof., University of Southern California  
Proposal Budget: 2,756,311 USD (from July 2015 to June 2020; completed)
7. Title: [Testing the Efficacy of Double Check: A Cultural Proficiency Professional Development Model in Middle Schools](#)  
Funding Agency: Institute of Education Sciences  
Project Members include: Catherine Bradshaw (PI), Prof., University of Virginia  
Katrina Debnam (Co-PI), Assistant Scientist, Johns Hopkins University

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**Ji Hoon Ryoo (Co-I)**, Associate Prof., University of Southern California  
Proposal Budget: 3,496,525 USD (from July 1, 2015 to June 30, 2019; completed)

8. Title: Component-based Item Response Theory  
Funding Agency: Dean's Office of the College of Arts and Sciences, University of Virginia  
Project Members: **Ji Hoon Ryoo (PI)**, Assistant Prof., University of Virginia  
Karen M. Schmidt (Co-PI), Associate Prof., University of Virginia  
Project Budget: 10,500 USD (from February 2017 to January 2018; completed)
9. Title: Investigation of the Effects of Principal Time-Use on Teacher Instruction and Student Learning across 24 Educational Systems  
Funding Agency: UVa Center for International Studies  
Project Members: **Ji Hoon Ryoo (PI)**, Assistant Prof., University of Virginia  
Moosung Lee (Co-I), Associate Prof., University of Hong Kong  
Proposal Budget: 3,000 USD (from January 2014 to June 2014; completed)

### B.8 Presentations

1. Park, S., Kim, S., Ryoo, H. S., Kwon, J., & **Ryoo, J. H.** (2021, June – Accepted). *A guideline for the degree of noninvariance to implement measurement alignment*. Paper was accepted at the 2021 annual meeting of the National Council on Measurement in Education (NCME).
2. Ding, Y., Choi, J., Jiao, H., & **Ryoo, J. H.** (2021, June – Accepted). *Psychometric properties of multiple forms based on automatic item generation*. Paper was accepted at the 2021 annual meeting of the National Council on Measurement in Education (NCME).
3. Kim, S., Park, S., & **Ryoo, J. H.** (2021, April – Accepted). *Fuzzy clusterwise GSCA with higher-order factor model*. Paper was accepted at the annual meeting of the American Educational Research Association.
4. Smith, K. C., Jang, B. G., & **Ryoo, J. H.** (2021, April – Accepted). *Examining the validity structures of three popular reading motivation measures*. Paper was accepted at the annual meeting of the American Educational Research Association.
5. Ryoo, H. S., Park, S., Kim, S., & **Ryoo, J. H.** (2021, April – Accepted). *Model evaluation via confirmatory tetrad analysis for component-based structural equation modeling: A simulation study*. Paper was accepted at the annual meeting of the American Educational Research Association.
6. Chang, N., Yeh, M. Y., Raymond, J., **Ryoo, J. H.**, & Chao, L. C. (2020, June). *Glycemic control in youth with type 2 diabetes correlates with weight loss and markers of beta-cell function, but not intense insulin regimen*. Paper presentation at the American Diabetes Association 80<sup>th</sup> Scientific Session, Chicago, IL.
7. Demaray, M. K., Malecki, C. K., **Ryoo, J. H.**, & Summers, K. H. (Accepted – Postponed to 2021, July). *Deconstructing bullying roles: A longitudinal latent profile analysis of bullying role behaviors for students in grades 4 through 12*. Paper was accepted for 42<sup>nd</sup> Annual Conference of the International School Psychology Association, Nicosia, Cyprus.
8. Suh, H., Kim, M., Choi, J., & **Ryoo, J. H.** (2020, April - Cancelled). *An evaluation of automatic item generation for generating parallel forms*. Paper presentation at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.
9. Park, S., Kim, S., & **Ryoo, J. H.** (2020, April - Cancelled). *LCA with covariates utilizing fuzzy clusterwise generalized structured component analysis*. Paper presentation at the annual meeting of the American Educational Research Association, San Francisco, CA.

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10. Berger, P. K., Plows, J. F., Jones, R. B., Alderete, T. L., Yonemitsu, C., **Ryoo, J. H.**, Bode, L., Peterson, B. S., Goran, M. I. (2019, November). *Maternal Obesity and Breast Milk Oligosaccharides Contribute to Infant Cognitive Development*. Abstract was presented at the Obesity Society, Las Vegas, NV.
11. **Ryoo, J. H.**, Choi, J., Suh, H., & Park, S. (2019, July). *Psychometric properties of measure of cognitive ability: Digital assessment tool for learning analytics*. Paper was presented at the annual meeting of the Psychometric Society, Santiago, Chile.
12. **Ryoo, J. H.**, Kubicek, K., & Kipke, M. (2019, June). *Longitudinal measurement invariance of engagement in HIV care continuum*. Paper was presented at the 14<sup>th</sup> International Conference on HIV Treatment and Prevention Adherence, Miami, Florida.
13. Berger, P. K., Plows, J. F., Jones, R. B., Alderete, T. L., Yonemitsu, C., **Ryoo, J. H.**, Bode, L., & Goran, M. I. (2019, June). *Human milk oligosaccharides and infant weight in the first 6 months of life*. Paper was presented at the 2019 Meeting of the American Society for Nutrition, Baltimore, Maryland.
14. Lee, M., **Ryoo, J. H.**, Campbell, P., Hollen, P., & Williams, I. (2019, April). *Exploring the challenges and impacts on how caregivers of older adults with dementia manage medical/nursing tasks at home: An integrative review*. Paper was presented at the annual conference of the Southern Gerontological Society, Panama City Beach, Florida
15. **Ryoo, J. H.**, Choi, J., Suh, H., & Park, S. (2019, April). *A validity study on a tool for computerized cognitive science: Measure of cognitive ability*. Paper was presented at the annual meeting of the Korean-American Educational Researchers Association, Toronto, Canada.
16. Suh, H., Kim, M., Choi, J., **Ryoo, J. H.**, & Someshwar, S. (2019, April). *Utilities of automatic item generation on parallel form construction*. Paper was presented at the annual meeting of the National Council on Measurement in Education, Toronto, Canada.
17. **Ryoo, J. H.**, & Hwang, H. (2019, April). *New model evaluation tools in component-based structural equation modeling*. Paper was presented at the annual meeting of the American Educational Research Association, Toronto, Canada.
18. **Ryoo, J. H.**, Jung, K H., Hwang, H., & Choi, J. (2019, April). *Component-based item response theory utilizing generalized structured component analysis*. Paper was presented at the annual meeting of the American Educational Research Association, Toronto, Canada.
19. Lee, M., **Ryoo, J. H.**, Crowder, J., Byon, H. D., & Williams, I. C. (2018, November). *Effective interventions for quality of life among caregivers of people with dementia: A systematic review and meta-analysis*. Paper was presented at the Gerontological Society of America 2018 Annual Scientific Meeting, Boston, MA.
20. **Ryoo, J. H.**, Kush, J., Pas, E., Musci, R., & Bradshaw, C. (2018, May). *Investigation of propensity score matching paradox in longitudinal data*. Paper was presented at the annual convention of the Society for Prevention Research, Washington D.C.
21. **Ryoo, J. H.**, Kush, J., Pas, E., Musci, R., & Bradshaw, C. (2018, May). *Power analysis in multilevel data with variability in the level 1 units*. Paper was presented at the annual convention of the Society for Prevention Research, Washington D.C.
22. Pas, E., **Ryoo, J. H.**, Musci, R., & Bradshaw, C. (2018, May). *Examining student moderators for the effectiveness of school-wide positive behavioral interventions and supports when taken to scale across a state*. Paper was presented at the annual convention of the Society for Prevention Research, Washington D.C.

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23. Bradshaw, C., **Ryoo, J. H.**, Pas, E., Kush, J., & Musci, R. (2018, May). *Impacts of state-mandated PBIS implementation on behavior and achievement outcomes*. Paper was presented at the annual convention of the Society for Prevention Research, Washington D.C.
24. **Ryoo, J. H.**, Skeeles-Worley, A. D., & Tai, R. H. (2018, April). *Re-design a measure of student's attitudes toward science: A longitudinal psychometric approach*. Paper was presented at the annual meeting of the American Educational Research Association, New York, NY.
25. Hong, S., **Ryoo, J. H.**, Rhee, G., Kim, S. J., Kwon, J., & Lee, D. (2018, April). *Mediating effects of school-based resources in the relationship between chronic violence victimization and educational outcomes among middle school students in South Korea: Implications for reducing educational inequality*. Paper was presented at the annual meeting of the Korean-American Educational Research Association, New York, NY.
26. Skeeles-Worley, A. D., Tai, R. H., **Ryoo, J. H.**, & Dittrick, C. (2018, March). *The longitudinal relationship of positive and negative science attitudes of middle school students*. Paper was presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.
27. Skeeles-Worley, A. D., Tai, R. H., **Ryoo, J. H.**, & Dittrick, C. (2018, March). *Preferences for Making/Creating and Discovering Activities Associated with Science Career Aspirations in Grades 3-6*. Paper was presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.
28. Han, I., **Ryoo, J. H.**, & Choi, H. (2018, March). *Political conservatism at national level in attitudes toward women as business leaders*. Paper was presented at the 2018 Society for Personality and Social Psychology Annual Conventional, Atlanta, GA.
29. Schmidt, K. M., Jung, K., Hwang, H., Meyer, J. P., & **Ryoo, J. H.** (2017, July). *Person scoring in 2PL Model between CB-IRT and FB-IRT*. Paper was presented at the annual meeting of the Psychometric Society, Zürich, Switzerland.
30. **Ryoo, J. H.**, Bradshaw, C., & Kush, J. (2017, July). *Propensity score analysis using super learner for longitudinal data*. Paper was submitted to be presented at the annual meeting of the Psychometric Society, Zürich, Switzerland.
31. **Ryoo, J. H.**, Pas, E. T., Musci, R., & Bradshaw, C. (2017, May). *Comparison of two methods on propensity score analysis in practice*. Paper was presented at the annual convention of the Society for Prevention Research, Washington D.C.
32. **Ryoo, J. H.** (2017, April). *Examination of a cluster effect on model specification in multilevel latent transition analysis*. Paper was presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
33. **Ryoo, J. H.**, & Tai, R. H. (2017, April). *Simulation-based power analysis in latent transition analysis*. Paper was presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
34. Tai, R. H., **Ryoo, J. H.**, Skeeles-Worley, A. D., & Wei, S. (2017, April). *Testing measurement invariance on a FOCIS measure in science education across American and Chinese students*. Paper was presented at the annual meeting of the American Educational Research Association, San Antonio, TX.
35. Choi, J., **Ryoo, J. H.**, & Harring, J. R. (2017, April). *Generalized logistic latent growth models: An inherently nonlinear growth modeling*. Paper was presented at the annual meeting of the National Council on Measurement in Education, San Antonio, TX.

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36. Barone, N., & **Ryoo, J. H.**, & Kamarunas, E. (2016, October). *How we determine baseline measures and its impact on results: A reflective discussion*. Poster was accepted to be presented at the fNIRS 2016 Conference, Paris, France.
37. **Ryoo, J. H.**, & Hwang, H. (2016, July). *Model selection in GSCA using confirmatory tetrad analysis*. Paper presented at the annual meeting of the Psychometric Society, Asheville, North Carolina.
38. **Ryoo, J. H.**, Jung, K., Hwang, H., Meyer, J. P., Molfese, V., Brown, T. E., & Shi, D. (2016, May). *Application of Generalized Structured Component Analysis to Item Response Theory*. Paper presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
39. **Ryoo, J. H.**, Shukla, K. D., Pas, E. T., & Bradshaw, C. (2016, May). *1-to-n Propensity Matching Methods*. Paper presented at the annual convention of the Society for Prevention Research, San Francisco, CA.
40. **Ryoo, J. H.**, Tai, R., Mitchell, C., Shi, D., Almarode, J., & Maltese, A. (2016, April). *Examination of Measurement Invariance on a Framework for Observing and Categorizing Instructional Strategies*. Poster presented at the annual meeting of the American Educational Research Association, Washington D.C.
41. Shi, D., & **Ryoo, J. H.** (2016, April). *Detecting Measurement Invariance in SEM: Evaluating Goodness-of-fit indexes*. Poster presented the annual meeting of the American Educational Research Association, Washington D.C.
42. **Ryoo, J. H.**, Wang, C., Swearer, S., & Shi, D. (2015, August). *Investigation of Measurement Invariance on Longitudinal School Bullying Data*. Poster presented at the annual convention of the American Psychological Association, Toronto, Canada.
43. **Ryoo, J. H.**, Jung, K., Hwang, H., & Meyer, J. P. (2015, July). *Component-based Item Response Theory*. Paper presented at the annual meeting of the Psychometric Society, Beijing, China.
44. **Ryoo, J. H.**, Chatterjee, S., & Shi, D. (2015, May). *New Variable Selection Criteria in Model Selection*. Paper presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
45. Shi, D. & **Ryoo, J. H.** (2015, May). *Estimating the Moderator Effects in Moderated Multiple Regression*. Poster presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
46. Shi, D., & **Ryoo, J. H.** (2015, April). *Which effect size to report: meta-analysis of effect size in single case design*. Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
47. Park, S., Callahan, M. C., & **Ryoo, J. H.** (2015, April). *Assessing Measurement Invariance of the Implicit Theories of Intelligence Scale Between Non-identified and Identified Gifted*. Poster presented at the annual meeting of the American Educational Research Association, Chicago, IL.
48. **Ryoo, J. H.**, Wang, C., & Swearer, S. (2014, August). *Effects of giftedness and student grade on bullying involvement*. Poster presented at the annual convention of the American Psychological Association, Washington D.C.
49. Wang, C., **Ryoo, J. H.**, & Swearer, S. (2014, August). *Longitudinal investigation of bullying and moral disengagement*. Poster presented at the annual convention of the American Psychological Association, Washington D.C.
50. **Ryoo, J. H.**, & Shi, D. (2014, July). *Exploratory latent curve modeling with fractional polynomials*. Paper presented at the annual meeting of the Psychometric Society, Madison, WI.

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51. Shi, D., & **Ryoo, J. H.** (2014, July). *Testing the model fit index of structural equation modeling: a simulation study to the performance of the unbiasedness of RMSEA*. Paper presented at the annual meeting of the Psychometric Society, Madison, WI.
52. Jang, B. G., **Ryoo, J. H.**, & McKenna, M. C. (2014, July). *Profiles of reading attitudes among proficient, average, and struggling readers*. Paper presented at the annual meeting of the Scientific Studies of Reading, Santa Fe, NM.
53. **Ryoo, J. H.**, Berg, J., & Bradshaw, C. (2014, May). *Multiple Imputation on Longitudinal and Multilevel Data: A Case Example from a School-based Randomized Trial*. Poster presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
54. **Ryoo, J. H.**, Molfese, V., Brown, E. T., & Shi, D. (2014, May). *Examination of Population Heterogeneity on the Early Childhood Mathematics: A growth mixture modeling approach*. Poster presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
55. **Ryoo, J. H.**, Wang, C., & Swearer, S. (2014, April). *Developmental trajectories of bullying and moral disengagement in youth*. Paper presented at the annual meeting of the American Educational Research Association, Philadelphia, PA.
56. Jang, B. G., **Ryoo, J. H.**, & McKenna, M. C. (2013, December). *Multiple dimensions of Korean adolescents' reading attitudes and achievement*. Paper presented at the annual meeting of the Literacy Research Association, Dallas, TX.
57. **Ryoo, J. H.**, Wang, C., & Swearer, S. (2013, August). *Exploration of the change of latent statuses in bullying behaviors across time*. Poster presented at the annual convention of the American Psychological Association, Honolulu, HI.
58. Lee, M., & **Ryoo, J. H.** (2013, June). *Revisiting the Effects of Principal Time-Use on Student*. Paper presented at the annual meeting of the International Association for the Evaluation of Educational Achievement, Singapore.
59. Hong, S., **Ryoo, J. H.**, & Bart, W. (2013, April). *Effectiveness of School-Wide Positive Behavioral Interventions and Supports on Special Education Student Achievement Growth in Schools in Poverty Settings*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
60. Hong, S., Lee, M., Noh, J., & **Ryoo, J. H.** (2013, April). *The Mediation Effect of Student Teacher Attitude toward Inclusion for Students with Autism: A Structural Equation Modeling Approach*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.
61. Jang, B. G., Kim, J., **Ryoo, J. H.** & McKenna, M. C. (2013, April). *Comparing Structural Differences in Reading Attitudes, and Reading Achievements between U.S. and Korean Adolescents: Finding from PISA 2009*. Poster presented at the American Educational Research Association, San Francisco, CA.
62. Torquati, J., Raikes, H., Welch, G., **Ryoo, J. H.**, & Tu, X. (2013, April). *Investigating Thresholds of Child Care Quality Using a GAM Analytic Approach*. Paper presented at the biennial meeting of the Society for Research in Child Development, Seattle, WA.
63. Rhee, J., Johnson, K. K. P., and **Ryoo, J. H.** (2012, November). *Exploring Relationship between Self-Brand Congruence and Brand Commitment*. Poster presented at the annual meeting of the International Textile & Apparel Association, Honolulu, HI.
64. **Ryoo, J. H.** and Swearer, S. (2012, August). *Exploration of the change of latent statues in self-esteem*. Poster presented at the annual convention of the American Psychological Association, Orlando, FL.

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65. Sheridan, S., Minke, K. M., Rispoli, K. M., **Ryoo, J. H.**, Kim, E. M., and Koziol, N. (2012, August). *Congruence within the Parent-Teacher Relationship: Associations with Children's Functioning*. Poster presented at the annual convention of the American Psychological Association, Orland, FL.
66. Hong, S., **Ryoo, J.**, and Bart, W. B. (2012, April). *The Effects of SW-PBIS on Special Education Student Achievement Growth*. Paper presented at the annual meeting of the American Educational Research Association, Vancouver, British Columbia, Canada.
67. Hong, S., **Ryoo, J. H.**, and Bart, W. (2012, April). *Investigating the Effectiveness of SW-PBIS on School-level Achievements*. Paper presented at the annual convention and expo of the Council for Exceptional Children, Denver, CO.
68. Hong, S., **Ryoo, J. H.**, and Bart, W. (2012, April). *Effects of SW-PBIS on School-level Student Achievement by Using Propensity Score Matching*. Poster presented at the annual convention and expo of the Council for Exceptional Children, Denver, CO.
69. Welch, G., and **Ryoo, J. H.** (2011, November). *Identifying Thresholds of Quality in Early Child Care and Education: A Non-parametric Approach*. Paper presented at the annual meeting of the Child Care Policy Research consortium, Washington D.C.
70. Torquati, J., Raikes, H., Welch, G., **Ryoo, J. H.**, and Tu, X. (2011, November). *Testing Thresholds of Quality on Child Outcomes Globally and in Subgroups*. Paper presented at the annual meeting of the Child Care Policy Research consortium, Washington D.C.
71. **Ryoo, J. H.** and Hong, S. (2011, September). *Investigating the Effectiveness of SW-PBIS on School's Accountability at Both Elementary and Middle Schools*. Paper presented at the fall conference of the Society for Research on Educational Effectiveness, Washington D.C.
72. **Ryoo, J.** (2011, July). *Measurement invariance in longitudinal data with a developmental latent trait over time*. Paper presented at the annual meeting of the Psychometric Society, Hong Kong.
73. **Ryoo, J.** and Reynolds, A. (2011, July). *Fitting the linear mixed model in the CLS data with static and dynamic predictors*. Paper presented at the annual meeting of the Psychometric Society, Hong Kong.
74. **Ryoo, J.** (2011, May). *Longitudinal model selection of statewide achievement tests at school level by using the Linear Mixed Model*. Paper presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
75. **Ryoo, J.** and Welch, G. (2011, May). *Fitting Generalized Fractional Polynomial Model incorporated with the Generalized Additive Model into Longitudinal Data*. Paper presented at the annual meeting of the Modern Modeling Methods Conference, Storrs, CT.
76. Hong, S., **Ryoo, J.**, and Bart, W. (2011, April). *Analysis of the Effect of Performance Pay for Teachers on Special Education Student Group Achievement in Mathematics and Reading*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
77. Raikes, H., Torquati, J., Welch, G., Tu, X., and **Ryoo, J.** (2011, April). *Investigating Thresholds of Child Care Quality Predicting Children's Development*. Paper presented at the biennial meeting of the Society for Research in Child Development, Montreal, Canada.
78. Tu, X., Raikes, H., Torquati, J., Welch, G., and **Ryoo, J.** (2011, April). *Factor Analyses of Quality Measures*. Paper presented at the biennial meeting of the Society for Research in Child Development, Montreal, Canada.

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79. **Ryoo, J. H.** (2010, July). *Model Selection with the Linear Mixed Effects Model for Longitudinal Data*. Paper presented at the annual meeting of the Psychometric Society, Athens, GA.
80. Hong, S., **Ryoo, J. H.**, and Bart, W. (2010, May). *A Longitudinal Study of Performance Pay: Examining special education student group achievement*. Paper presented at the annual meeting of the American Educational Research Association, Denver, CO.
81. Hong, S., **Ryoo, J. H.**, and Bart, W. (2010, May). *A Longitudinal Study of Performance Pay for Special Education Teachers in Middle and High Schools*. Poster presented at the annual convention and expo of the Council for Exceptional Children, Nashville, TN.
82. **Ryoo, J. H.** (2009, August). *Exploration of dimensionality of the CAOS test*. Poster presented at the annual meeting of Joint Statistical Meeting, Washington D.C.
83. Hong, S., **Ryoo, J. H.**, and Bart, W. (2009, April). *A Preliminary Longitudinal Study of Performance Pay for Teachers: Examining Elementary School Performance in Mathematics and Reading*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.
84. **Ryoo, J. H.** and Seo, D. G. (2008, July). *Efficiency of Bayesian Estimation with Gibbs Sampling in IRT models*. Paper presented at the annual meeting of the Psychometric Society, Durham, NH.
85. Hong, S. and **Ryoo, J. H.** (2008, March). *The Effect of Quality Compensation for Teaching on Student Performance in math and reading*. Paper presented at the annual meeting of the American Educational Research Association, New York, NY.
86. **Ryoo, J. H.** (2000, October). *Identities for Multiple Zeta Values*. Paper presented at the annual meeting of the Maine/Quebec Number Theory Conference, Quebec, Canada.

### B.9 Book review

1. **Ryoo, J. H.** & Shi, D. (2015). [Review of the book *Discovering Structural Equation Modeling Using Stata: Revised Edition*, by Acock, A. C. (2013). College Station, TX: Stata Press.] *Structural Equation Modeling: A Multidisciplinary Journal*, 22(1), 162-165. [DOI:10.1080/10705511.2014.935845](https://doi.org/10.1080/10705511.2014.935845)
2. **Ryoo, J. H.** (2012). [Review of the book *Longitudinal Data Analysis: A Handbook of Modern Statistical Methods*, by Fitzmaurice, G., Davidian, M., Verbeke, G., & Molenberghs, G. (Eds.). (2008). Boca Raton, FL: Chapman & Hall/CRC.] *Psychometrika*, 77(2), 423-424. [DOI:10.1007/S11336-012-9250-Z](https://doi.org/10.1007/S11336-012-9250-Z)

### B.10 Technical reports and conference proceedings († for corresponding authorship)

1. Lee, M., Spinks, J., Wright, E., Dean, J., & **Ryoo, J. H.** (2017). *A Study of the Post-Secondary Outcomes of IB Diploma Alumni in Leading Universities in Asia Pacific: Report for the International Baccalaureate Organization*. Canberra: University of Canberra.
2. †**Ryoo, J. H.**, Hong, S., Kwon, J., & Kwak, N. (2015). Investigation of nonlinear growth mixture models of student learning. *Proceedings of 9<sup>th</sup> Korean Education Longitudinal Study*, 99-109.
3. Hong, S., **Ryoo, J. H.**, Kwon, J., & Kwak, N. (2015). Study of measures on school effectiveness via value-added models. *Proceedings of 9<sup>th</sup> Korean Education Longitudinal Study*, 127-141.
4. Kim, E. M., Minke, K. M., Sheridan, S. M., Koziol, N., **Ryoo, J. H.**, & Rispoli, K. M. (2012). *Congruence within the parent-teacher relationship: Associations with children's functioning* (CYFS Working Paper No. 2012-2). Retrieved from the Nebraska Center for Research on Children, Youth, Families and Schools website: [cyfs.unl.edu](http://cyfs.unl.edu)

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5. †**Ryoo, J. H.** and Chatterjee, S. (2010). *Simulation Study in the Linear Regression*. Technical Report #678, School of Statistics, University of Minnesota
6. †**Ryoo, J. H.** (2008). *Mean Growth Curve Models for Achievement Scores in Chicago Longitudinal Study*. Internal report, Institute of Child Development, University of Minnesota

### C. Teaching and Services

#### C.1 Teaching

##### C.1.1 Teaching experiences

Feb. 2020 – Current	Dept. of Education, College of Educational Sciences, Yonsei University, Seoul, South Korea	<i>Faculty</i>
Aug. 2018 – Jan. 2020	Keck School of Medicine, University of Southern California	<i>Faculty</i>
Aug. 2012 – July 2018	Curry School of Education, University of Virginia	<i>Faculty</i>
Jan. 2012 – May 2012	Dept. of Educational Psychology, University of Nebraska	<i>Postdoctoral Fellow</i>
Feb. 2010 – July 2010	Dept. of Math, Stat, and Comp. Sciences, St. Olaf College, MN	<i>Adjunct Faculty</i>
Aug. 2009 – May 2010	Dept. of Math, Inver Hills Community College, MN	<i>Adjunct Faculty</i>
Sept. 2009 – Dec. 2009	School of Statistics, University of Minnesota	<i>Teaching Specialist</i>
Aug. 2009 – Dec. 2009	Dept. of Math, Century College, MN	<i>Adjunct Faculty</i>
Sept. 2006 – May 2009	Dept. of Educational Psychology, University of Minnesota	<i>Graduate Instructor / TA</i>
Sept. 2001 – Aug. 2006	School of Math, University of Minnesota	<i>Graduate Instructor / TA</i>

##### C.1.2 Course instruction

Yonsei University	EDU 7480	Factor Analysis and SEM (Spring, 2020; 3 cr.)
	EDU 2106	Educational Statistics I (Spring, 2020; 3 cr.)
	EDU 7310	Statistical Methods II (Fall, 2020; 3 cr.)
	EDU 3167	Educational Statistics II (Fall, 2020; 3 cr.)
	EDU 7485	Machine Learning (Spring, 2021; 3 cr.)
	EDU 2106	Educational Statistics I (Spring, 2021; 3cr.)
	EDU 7880	Longitudinal Data Analysis (Fall, 2021; 3cr.)
	EDU 3167	Educational Statistics II (Fall, 2021; 3cr.)
University of Southern California (Children's Hospital Los Angeles)	Meta Analysis in Medical Research (Fall, 2019; 3 cr.)	
University of Virginia	(B) EDLF 8300	Experimental Design: Stat II (Fall, 2012; 3 cr.)
	(B) EDLF 8361	Structural Equation Modeling (Spring, 2013; 3 cr.)
	(B) EDLF 7310	Educational Statistics: Stat I (Fall, 2013; 3 cr.)
	(B) EDLF 8360	Multilevel Modeling (Fall, 2013; 3 cr.)
	(B) EDLF 8300	Experimental Design: Stat II (Spring, 2014; 3 cr.)
	(B) EDLF 8310	Correlation & Regression: Stat III (Fall, 2014; 3 cr.)
	(B) EDLF 8300	Experimental Design: Stat II (Spring, 2015; 3 cr.)
	(B) EDLF 8361	Structural Equation Modeling (Spring, 2015; 3 cr.)
	(B) EDLF 8310	Correlation & Regression: Stat III (Fall, 2015; 3 cr.)
	(B) EDLF 7420	Experimental Design: Stat II (Spring, 2016; 3 cr.)
	(B) EDLF 8310	Correlation & Regression: Stat III (Fall, 2016; 3 cr.)
	(B) EDLF 8360	Multilevel Modeling (Fall, 2016; 3 cr.)
	(B) EDLF 7420	Experimental Design: Stat II (Spring, 2017; 3 cr.)
	(B) EDLF 8361	Structural Equation Modeling (Spring, 2017; 3 cr.)

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	(B) EDLF 7420	Experimental Design: Stat II (Spring, 2017; 3 cr.)
	(B) EDLF 7420	Experimental Design: Stat II (Spring, 2018; 3 cr. – Sec 1)
	(B) EDLF 7420	Experimental Design: Stat II (Spring, 2018; 3 cr. – Sec 2)
University of Nebraska	(B) EDPS 991	Longitudinal Data Analysis (Spring, 2012; 3 cr.)
University of Minnesota	(P) MATH 1271	Calculus I (Summer, 2002; 4 cr.)
	(P) MATH 1272	Calculus II (Summer, 2006; 4 cr.)
	(B) EPSY 5261	Introductory Statistical Methods (Graduate Level and Online Course; Spring, 2009; 3 cr.)
	(M) STAT 3011	Introduction to Statistical Analysis (Fall, 2009; 3 cr.)
St. Olaf College, Minnesota	(M) Stat 212	Statistics for the Science (Spring, 2010; 3 cr.)
	(M) Stat 212	Statistics for the Science (Summer, 2010; 3 cr.)
Inver Hills Community College, Minnesota	(D) Math 0090	Essential Mathematics (Fall, 2009; 3 cr.)
	(D) Math 0093	Accelerated Combined Math 0092/Math 0094 (Fall, 2009; 5 cr.)
	(D) Math 1101	Mathematics for Liberal Arts (Fall, 2009; 3 cr.)
	(D) Math 0093	Accelerated Combined Math 0092/Math 0094 (Spring, 2010; 5 cr.)
	(D) Math 0098	Accelerated Combined Math 0094/Math 0099 (Spring, 2010; 5 cr.)
	(D) Math 0099	Intermediate Algebra (Spring, 2010; 3 cr.)
	(D) Math 1118	College Algebra (Spring, 2010; 3 cr.)
Century College, Minnesota	(D) Math 0010	Basic Mathematics (Fall, 2009; 3 cr.)
	(D) Math 1025	Statistics (Fall, 2009; 3 cr.)

*Note:* Letter in ( ) indicates type of virtual classroom management programs such as  
(P) for personal website, (B) for Blackboard, (M) for Moodle, (D) for Desire2Learn, and  
(N) for class using no virtual classroom management programs

### C.2 Professional services

Sept. 2017 – Current	<i>Editorial Board of Exceptional Children</i> Editors, John Wills Lloyd & William Therrien
Apr. 2017 – Apr. 2021	<i>KAERA Treasurer (2017-18 with President, Soo-yong Byun); Vice President (2018-19 with President, Eun-Ok Baek); President (2019-20); Immediate Past President (2020-21)</i> Korean-American Educational Researchers Association (KAERA)
Jan. 2016 – Dec. 2018	<i>Editorial Board of School Psychology Quarterly</i> Editor, Rich Gilman
Sept. 2010 – Current	<i>Journal Peer Reviewer</i> Applied Psychological Measurement, Exceptional Children, Exceptionality, Learning and Individual Differences, Structural Equation Modeling: A Multidisciplinary Journal, Child Development
Apr. 2013 – Current	<i>Bruce Gansneder Award Committee</i> Curry School of Education, University of Virginia
Apr. 2011 – Apr. 2014	<i>AERA Division D Quantitative Dissertation Award Committee: Co-chair in 2012-2013; Chair in 2013-2014</i> American Educational Research Association (AERA)
Sept. 2010 – May 2012	<i>Member of Seminar Organizers</i> <i>Research Methodology Series:</i> Providing information to social science researchers about research methodology and statistical approaches Nebraska Center for Research on CYFS University of Nebraska, Lincoln

## Ji Hoon Ryoo, Ph.D.

### C.3 Honors & Awards

July – Aug. 2019	<i>2019 Meta-Analysis IES Grant Writing Training Award</i> Meta-Analysis Training Institute
May 2017	<i>2017 Early Career Preventionists Travel Award</i> Society for Prevention Research
Jan. 2017	<i>2016 School Psychology Quarterly Service Award</i> Division of School Psychology American Psychological Association
May 2016	<i>2016 Minority Annual Meeting Travel Award</i> Society for Prevention Research
Aug. 2014	<i>2013 Journal of School Psychology Article of the Year</i> Society for the Study of School Psychology American Psychological Association
July 2010 – Aug. 2011	<i>2011 Outstanding Postdoc Award</i> Office of Postdoctoral Studies University of Nebraska-Lincoln
Aug. 2008 – May 2009	<i>The Psych Foundations/QME Students Research Award</i> Department of Educational Psychology University of Minnesota
Aug. 2006 – May 2007	<i>Jack Merwin Graduate Assistantship Award</i> Department of Educational Psychology University of Minnesota
Aug. 2005 – May 2006	<i>Excellent Teaching Award</i> The School of Mathematics University of Minnesota
Aug. 2000 – May 2001	<i>John and Beverly Toole Award for acting president of Pi Mu Epsilon</i> <i>(mathematics Honorary Society)</i> Department of Mathematics and Statistics University of Maine