

Curriculum Vitae

NANA KIM
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FIELDS OF INTEREST

Psychometrics, Item response theory (IRT), Item/test validation, Response process modeling, (Generalized) mixed effects models, Scaling and equating, Bayesian methods

EDUCATION

PhD, University of Wisconsin-Madison Educational Psychology, Quantitative Methods Minor: Statistics, Advisor: Daniel M. Bolt	2022
MA, Yonsei University, Seoul, South Korea Education, Measurement and Quantitative Methods	2016
BA, Yonsei University, Seoul, South Korea Education	2014

APPOINTMENTS AND EMPLOYMENT

University of Minnesota, Twin-Cities Tenure-Track Assistant Professor	August 2022 - Present
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HONORS AND RECOGNITION

Student Travel Award, Department of Educational Psychology, University of Wisconsin-Madison	December 2018
Poster Award, Psychometric Society	2018
Busk Travel Scholarship, Department of Educational Psychology, University of Wisconsin-Madison	April 2018

PUBLICATIONS

Asterisk() - indicates student author*

Peer-Reviewed Journal Article

- Choi, S.*, McMaster, K. L., & **Kim, N.** (2025). Toward the fair and valid use of curriculum-based measurement for students with intensive writing needs and linguistically diverse backgrounds. *Assessing Writing*, 65. <https://doi.org/10.1016/j.asw.2025.100948>
- Kim, N.**, Deng, J., & Wong, Y. L.* (2025). Digital Module 37: Introduction to item response tree (IRTree) models. *Educational Measurement: Issues and Practice*, 44, 109-110. <https://doi.org/10.1111/emip.12665>
- Kim, N.**, Jeon, M., & Partchev, I. (2024). Conditional dependence across slow and fast item responses: With a latent space item response modeling approach. *Journal of Intelligence*, 12(2), 23. <https://doi.org/10.3390/jintelligence12020023>
- Kim, N.**, & Bolt, D. M. (2023). Evaluating psychometric differences across fast and slow

responses in rating scale measurement. *Journal of Educational and Behavioral Statistics*.
<https://doi.org/10.3102/10769986231195260>

Kim, N., Bolt, D. M., & Wollack, J. (2022). Noncompensatory MIRT for passage-based tests. *Psychometrika*, 87. <https://doi.org/10.1007/s11336-021-09826-6>

Kim, N., & Bolt, D. M. (2021). A mixture IRTree model for extreme response style: Accounting for response process uncertainty. *Educational and Psychological Measurement*, 81(1), 131-154. <https://doi.org/10.1177/0013164420913915>

Bolt, D. M., Kim, N., Wollack, J., Pan, Y., Eckerly, C., & Sowles, J. (2020). A psychometric model for discrete-option multiple-choice items. *Applied Psychological Measurement*, 44(1), 33-48. <https://doi.org/10.1177/0146621619835499>

Kim, N., Lee, G., & Kang, S.-J. (2017). A bifactor MIRT approach to estimating the reliability of test scores composed of testlets. *Journal of Educational Evaluation [Korean Citation Index (KCI) Journal]*, 30(1), 75-99. [written in Korean]

Conference Proceeding/Book Chapter

Kim, N., Bolt, D. M., Wollack, J., Pan, Y., Eckerly, C., & Sowles, J. (2019). In Wiberg, M., Culpepper, S., Janssen, R., González, J., & Molenaar, D. (Eds.), *Quantitative Psychology: 83rd Annual Meeting of the Psychometric Society, New York, NY, 2018* (pp. 383-392). New York: Springer. https://doi.org/10.1007/978-3-030-01310-3_33

PRESENTATIONS

Invited Presentations/Talks

Kim, N. (February 2023). *Applications of multidimensional item response theory models*. Online Winter Workshop Series in Measurement and Research Methods, Korean Society for Educational Evaluation, Seoul, South Korea.

Kim, N. (November 2022). *A mixture IRTree model for understanding response processes in rating scale items*. CanAm Online Symposium Series in Educational Research Methods. Jointly held by the programs at the Universities of Alberta, University of Iowa, University of Minnesota, University of Maryland, University of Nebraska-Lincoln, and University of Wisconsin-Madison.

Conference Presentations

Refereed paper presentations

Kim, N. & Jeon, M. (July 2025). *Unexplained item-person interactions due to heterogeneous item discriminations across individuals*. The annual International Meetings of the Psychometric Society (IMPS), Minneapolis, Minnesota.

Delgado, J.*, Kim, N., Weiss, D. (2025). *An informative index for evaluating equiprecision in IRT-based assessments*. The annual International Meetings of the Psychometric Society (IMPS), Minneapolis, Minnesota.

An, J.*, Hwang, H., Choi, S., Chau, L., Kim, N., McMaster, K., & Kendeou, P. (July 2025). *What are we missing in students' inference generation?*. Society for Scientific Study of Reading (SSSR) annual conference, Calgary, Canada. (*Spoken paper withdrawn due to*

enforced funding restrictions and international travel constraints)

Kim, N. (April 2025). *Conditional dependence across slow and fast item responses: A LSIRM approach*. In M. Jeon (chair), *Innovations in Latent Space Item Response Modeling: Diagnosing Hidden Dependencies for Fairness*. [Symposium]. The annual meeting of the National Council on Measurement in Education (NCME), Denver, Colorado.

Kim, N. (July 2023). *Comparisons of psychometrics models for memory recognition tests*. The annual International Meetings of the Psychometric Society (IMPS), College Park, Maryland.

Kim, N., & Bolt, D. M. (April 2022). *Understanding response process heterogeneity across fast and slow responses in noncognitive tests*. The annual meeting of the National Council on Measurement in Education (NCME), San Diego, California.

Kim, N., & Bolt, D. M. (July 2021). *On the use of response times to improve estimation of response styles*. The annual International Meetings of the Psychometric Society (IMPS), Virtual.

Kim, N., & Bolt, D. M. (July 2020). *Evaluating a non-compensatory MIRT model for passage-based tests*. The annual International Meetings of the Psychometric Society (IMPS), Virtual.

Kim, N., & Bolt, D. M. (July 2019). *Evaluating competing multiprocess IRT tree models in studies of response style*. The annual International Meeting of the Psychometric Society (IMPS), Santiago, Chile.

Kim, N., & Kim, Y. (April 2018). *The role of parents and teachers in the development of students' mathematics self-efficacy*. The annual meeting of the American Educational Research Association (AERA), New York, New York.

Refereed poster presentations

Hwang, H., Kendeou, P., **Kim, N.**, Kim, J., Paul, van den Broek, P., & Cho, R.-Y. (November 2024). *Readers' standards of coherence are multidimensional*. The Psychonomic Society Annual Meeting, New York, New York.

~~**Kim, N., Bolt, D. M., Wollack, J., Pan, Y., Elderly, C., & Soles, J.** (July 2018). *An item response model for diagnostic multiple-choice tests*. The annual International Meeting of the Psychometric Society (IMPS), New York, New York.~~

Kim, N., & Lee, G. (April 2016). *IRT approach to estimating the reliability of testlet composed test scores*. The annual meeting of the National Council on Measurement in Education (NCME), Washington, DC.

Kim, N., Kang, H., & Lee, G. (July 2015). *Generalizability theory approaches to estimating reliability of testlet-based test with balanced and unbalanced data*. The annual International Meeting of the Psychometric Society (IMPS), Beijing, China.

TEACHING AND CURRICULUM DEVELOPMENT

University of Minnesota

Item Response Models [EPSY 8226: S23, S24]

Principles of Educational and Psychological Measurement [EPSY 5221: F22, S24, S25]

Factor Analysis [EPSY 8265: F22, F23]

Basic and Applied Statistics [EPSY 3264: S25]

SERVICE

Service to the Discipline/Profession/Interdisciplinary Area(s)

Editorial Board

Journal of Educational Psychology	2023 - Present
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Ad Hoc Reviewer

Behavior Research Methods	2024 - Present
Measurement: Interdisciplinary Research and Perspectives	2024 - Present
Journal of Educational Measurement	2023 - Present
Multivariate Behavioral Research	2023 - Present
Journal of Educational and Behavioral Statistics	2022 - Present
Applied Psychological Measurement	2021 - Present
Psychometrika	2021 - Present
Educational and Psychological Measurement	2020 - Present

Professional Organization Committee

IMPS Local Host Committee	2024 - Present
IMPS Program Committee	2023 - 2024
IMPS Conference Committee	2019 - 2021

Conference Proposal/Abstract Reviewer

National Council on Measurement in Education (NCME)	2022, 2024
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Service to the College of Education and Human Development, University of Minnesota

Panelist, CEHD International Students Career Workshop	2023
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Service to the Department of Educational Psychology, University of Minnesota

Member, Graduate Advisory Committee	2023 - Present
Member, Faculty Search Committee	2023
Member, Diversity Committee	2022 - 2023