

# Klint Kanopka, Ph.D.

✉ klint.kanopka@nyu.edu

🆔 0000-0003-3196-9538

🌐 klintkanopka.com

🌐 klintkanopka

🐦 @klintkanopka

☁ klint@bsky.social

## Education

- 2017 – 2023     **Ph.D., Stanford University** Graduate School of Education  
Dissertation title: *Computational Validity*.
- 2019 – 2021     **M.S., Stanford University** Computer Science
- 2010 – 2012     **M.S., Drexel University** Education
- 2001 – 2005     **B.S., Drexel University** Physics

## Academic Appointments

- 2023 – . . . .     **Assistant Professor of Applied Statistics**, New York University,  
Steinhardt School of Culture, Education, and Human Development,  
Department of Applied Statistics, Social Science, and the Humanities

## Publications

### Journal Articles

1. Domingue, B. W., **Kanopka, K.**, Ulitzsch, E., & Zhang, L. (2025). Implied probabilities of polytomous response functions for model-based prediction and comparison. *Behaviormetrika*.
2. Domingue, B. W., Rahal, C., Faul, J., Freese, J., **Kanopka, K.**, Rigos, A., Stenhaug, B., & Tripathi, A. S. (2025). The intermodel vigorish (imv) as a flexible and portable approach for quantifying predictive accuracy with binary outcomes. *PloS one*, 20(3), eo316491.
3. Ma, W. A., Richie-Halford, A., Burkhardt, A. K., **Kanopka, K.**, Chou, C., Domingue, B. W., & Yeatman, J. D. (2025). Roar-cat: Rapid online assessment of reading ability with computerized adaptive testing. *Behavior Research Methods*, 57(1), 1–17.
4. Caffarra, S., **Kanopka, K.**, Kruper, J., Richie-Halford, A., Roy, E., Rokem, A., & Yeatman, J. D. (2024). Development of the alpha rhythm is linked to visual white matter pathways and visual detection performance. *Journal of Neuroscience*, 44(6).
5. Domingue, B. W., **Kanopka, K.**, Kapoor, R., Pohl, S., Chalmers, R. P., Rahal, C., & Rhemtulla, M. (2024). The intermodel vigorish as a lens for understanding (and quantifying) the value of item response models for dichotomously coded items. *Psychometrika*, 1–21.
6. **Kanopka, K.**, Claro, S., Loeb, S., West, M., & Fricke, H. (2024). Are changes in reported social-emotional skills just noise? the predictive power of longitudinal differences in self-reports. *AERA Open*, 10.
7. **Kanopka, K.**, & Domingue, B. W. (2024). A position-sensitive mixture item response model. *Journal of Educational and Behavioral Statistics*, 10769986241289399.
8. Kapoor, R., Fahle, E., **Kanopka, K.**, Klinowski, D., Ribeiro, A. C. T., & Domingue, B. W. (2024). Differences in time usage as a competing hypothesis for observed group differences in accuracy with an application to observed gender differences in pisa data. *Journal of Educational Measurement*.
9. Moeller, K. J., **Kanopka, K.**, French, J., Hook, T., & Sedighi, M. (2024). Educational capitalisation: A co-formational feminist framework for conceptualising investment in for-profit education within the racialised and gendered political economy. *Globalisation, Societies and Education*, 1–15.

<sup>†</sup> denotes student collaborators

10. Trejo, S., & **Kanopka, K.** (2024). Using the phenotype differences model to identify genetic effects in samples of partially genotyped sibling pairs. *Proceedings of the National Academy of Sciences*, 121(49), e2405725121.
11. Biernacki, P. J., Altavilla, J., **Kanopka, K.**, Hsieh, H., & Solano-Flores, G. (2023). Long-term english learners' mathematics course trajectories: Downstream consequences of early remediation on college preparation. *International Multilingual Research Journal*, 17(2), 122–138.
12. Ramamurthy, M., Richie-Halford, A., **Kanopka, K.**, Hartsough, A., Osuna, K., Gorno-Tempini, M. L., & Yeatman, J. D. (2023). Can a gamified, rapid, online assessment of letter encoding ability in kindergarten and first grade children predict future reading development? *Journal of Vision*, 23(9), 5858–5858.
13. Ulitzsch, E., Domingue, B. W., Kapoor, R., **Kanopka, K.**, & Rios, J. A. (2023). A probabilistic filtering approach to non-effortful responding. *Educational Measurement: Issues and Practice*.
14. Domingue, B. W., **Kanopka, K.**, Mallard, T. T., Trejo, S., & Tucker-Drob, E. M. (2022). Modeling interaction and dispersion effects in the analysis of gene-by-environment interaction. *Behavior genetics*, 52(1), 56–64.
15. Domingue, B. W., **Kanopka, K.**, Stenhaus, B., Sulik, M. J., Beverly, T., Brinkhuis, M., Circi, R., Faul, J., Liao, D., McCandliss, B., et al. (2022). Speed–accuracy trade-off? not so fast: Marginal changes in speed have inconsistent relationships with accuracy in real-world settings. *Journal of Educational and Behavioral Statistics*, 47(5), 576–602.
16. Domingue, B. W., **Kanopka, K.**, Trejo, S., Rhemtulla, M., & Tucker-Drob, E. M. (2022). Ubiquitous bias and false discovery due to model misspecification in analysis of statistical interactions: The role of the outcome's distribution and metric properties. *Psychological Methods*.
17. Domingue, B. W., **Kanopka, K.**, Stenhaus, B., Soland, J., Kuhfeld, M., Wise, S., & Piech, C. (2021). Variation in respondent speed and its implications: Evidence from an adaptive testing scenario. *Journal of Educational Measurement*, 58(3), 335–363.
18. Yeatman, J. D., Tang, K. A., Donnelly, P. M., Yablonski, M., Ramamurthy, M., Karipidis, I. I., Caffarra, S., Takada, M. E., **Kanopka, K.**, Ben-Shachar, M., et al. (2021). Rapid online assessment of reading ability. *Scientific reports*, 11(1), 6396.

## Book Chapters

1. Ruiz-Primo, M. A., **Kanopka, K.**, & Hernandez, P. A. (2025). Measuring, assessing, or just testing student achievement? evidence from some states' testing programs in the united states. In L. Cohen-Vogel, P. Youngs, & J. Scott (Eds.), *Handbook of education policy research* (2nd, pp. 511–542). American Educational Research Association.

## Conference Proceedings

1. Mongkhonvanit, K., **Kanopka, K.**, & Lang, D. (2019). Deep knowledge tracing and engagement with moocs. *Proceedings of the 9th international conference on learning analytics & knowledge*, 340–342.

## Preprints

1. Zhang, L., Liu, Y., Molenaar, J., Dylan Gilbert, **Kanopka, K.**, & Domingue, B. W. (2025). Realistic simulation of item difficulties. *PsyArXiv*.
2. Deng, S.<sup>†</sup>, Siswandjo, J.<sup>†</sup>, & **Kanopka, K.** (2024). Mapping the participation of venture capital in education: An investment network perspective. *SocArXiv*.
3. Domingue, B., Braginsky, M., Caffrey-Maffei, L., Gilbert, J. B., **Kanopka, K.**, Kapoor, R., Liu, Y., Nadela, S., Pan, G., Zhang, L., et al. (2024). Solving the problem of data in psychometrics: An introduction to the item response warehouse (irw).

4. Ramamurthy, M., **Kanopka, K.**, Richie-Halford, A., Domingue, B. W., Pei, F., Bell, P., Yan, L., Hartsough, A., Luisa, G. T. M., & Yeatman, J. D. (2024). Design and validation of a rapid visual processing measure for screening reading difficulties in early childhood. *PsyArXiv*.
5. Ramamurthy, M., **Kanopka, K.**, Siebert, J. M., Yan, L., Townley-Flores, C., Zegers, M., Pei, F., Bell, P., Catts, H. W., Luisa, G. T. M., & Yeatman, J. D. (2024). Visual tasks as language-agnostic early identification measures of reading challenges. *PsyArXiv*.
6. Zhang, L., **Kanopka, K.**, Rahal, C., Ulitzsch, E., Zhang, Z., & Domingue, B. W. (2023). The intermodel vigorish for model comparison in confirmatory factor analysis with binary outcomes. *PsyArXiv*.

## Policy Briefs

1. **Kanopka, K.**, Claro, S., Loeb, S., West, M. R., & Fricke, H. (2020). What do changes in social-emotional learning tell us about changes in academic and behavioral outcomes? *Policy Analysis for California Education*.

## Presentations

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### Invited Talks

1. **Kanopka, K.** A position-sensitive mixture item response model. In: Fordham Psychometrics Seminar at Fordham University. 2024.
2. **Kanopka, K.**, & Moeller, K. Following the capital: Using investment networks to understand venture capital's influence on education. In: Society for Research into Higher Education Digital University Network Event on the Political Economy of EdTech. 2023.
3. **Kanopka, K.** Good luck with the blue book! an irt mixture model for position effects. In: Berkeley Evaluation & Assessment Research (BEAR) Seminar at UC Berkeley. 2021.

### Conference Presentations

1. **Kanopka, K.** Prediction quality of a range of polytomous models applied to a large data corpus. In: Annual Meeting of the National Council on Measurement in Education. 2025.
2. **Kanopka, K.**, Zhang, X.<sup>†</sup>, & Harel, D. A markov chain monte carlo procedure with simulated annealing for short form creation. In: International Objective Measurement Workshop. 2025.
3. Lu, Y.<sup>†</sup>, Huang, Y.<sup>†</sup>, & **Kanopka, K.** Assessing the representativeness of llm-generated item responses using latent class analysis. In: Annual Meeting of the National Council on Measurement in Education. 2025.
4. Domingue, B. W., **Kanopka, K.**, Braginsky, M., Zhang, L., Caffrey-Maffei, L., Kapoor, R., Liu, Y., Zhang, S., & Frank, M. The item response warehouse (irw): A large open repository of response data. In: Annual Meeting of the National Council on Measurement in Education. 2024.
5. Domingue, B. W., **Kanopka, K.**, Caffrey-Maffei, L., Kapoor, R., Zhang, S., & Liu, Y. The item response warehouse (irw): A large open repository of response data. In: Annual Meeting of the National Council on Measurement in Education. 2024.
6. Domingue, B. W., **Kanopka, K.**, Ulitzsch, E., & Zhang, L. Implied probabilities of polytomous response functions for model-based prediction and comparison. In: Annual Meeting of the National Council on Measurement in Education. 2024.
7. **Kanopka, K.**, & Harel, D. A lasso approach for short form item selection. In: International Meeting of the Psychometric Society. 2024.

8. Domingue, B. W., **Kanopka, K.**, Kapoor, R., Pohl, S., Chalmers, R. P., Rahal, C., & Rhemtulla, M. Applying the intermodel vigorish to quantify the value of item response modeling. In: Annual Meeting of the National Council on Measurement in Education. 2023.
9. **Kanopka, K.**, & Domingue, B. W. Projecting the performance of polytomous item response models onto a common scale with the intermodel vigorish. In: International Conference on Computational and Methodological Statistics. 2023.
10. **Kanopka, K.**, Domingue, B. W., Ulitzsch, E., Kapoor, R., Pohl, S., Chalmer, R. P., Rahal, C., & Rhemtulla, M. Bookmaking for item responses: Prediction, profits, and the imv. In: International Objective Measurement Workshop. 2023.
11. **Kanopka, K.**, & Hook, T. J. Following the capital: Using investment networks to understand venture capital's influence on education. In: Annual Meeting of the Comparative and International Education Society. 2023.
12. **Kanopka, K.**, Lang, D., & Alvero, A. Weighing algorithmic tradeoffs: Observations from 60,000 admission essays. In: Annual Meeting of the National Council on Measurement in Education. 2023.
13. **Kanopka, K.**, Yeatman, J., & Burkhardt, A. Incorporating response time using drift diffusion models in an online reading assessment. In: Annual Meeting of the National Council on Measurement in Education. 2023.
14. Kapoor, R., **Kanopka, K.**, & Domingue, B. W. Revisiting angrist et al. (2021): Merging international assessment data is not easy. In: Annual Meeting of the National Council on Measurement in Education. 2023.
15. Kapoor, R., Ruiz-Primo, M. A., Hernandez, P., & **Kanopka, K.** Online response process procedures: Affordances and constraints to collect, analyze, and interpret validity information. In: Annual Meeting of the American Educational Research Association. 2023.
16. Ulitzsch, E., Rios, J. A., Kapoor, R., **Kanopka, K.**, & Domingue, B. W. A probabilistic filtering approach to accounting for noneffortful responding. In: Annual Meeting of the National Council on Measurement in Education. 2023.
17. Wang, N., Li, M., **Kanopka, K.**, Dong, D., Hernandez, P., & Ruiz-Primo, M. A. Modeling context characteristics for contextualized assessment: A bayesian contextualized item response model. In: Annual Meeting of the National Council on Measurement in Education. 2023.
18. **Kanopka, K.** Profiling changes in student writing: From failure to success. In: Annual Meeting of the National Council on Measurement in Education. 2022.
19. **Kanopka, K.**, & Domingue, B. W. Good luck with the blue book: Computational approaches to fairness and validity in admissions testing. In: Annual Meeting of the American Educational Research Association. 2022.
20. Moeller, K., & **Kanopka, K.** Who profits from edtech? an intersectional feminist analysis of venture capital investment in education. In: Annual Meeting of the American Educational Research Association. 2022.
21. **Kanopka, K.**, & Domingue, B. Addressing the blue book problem: Application of a position-sensitive irt mixture model to enem 2014. In: International Meeting of the Psychometric Society. 2021.
22. **Kanopka, K.**, & Domingue, B. W. An irt mixture model for item position effects. In: Annual Meeting of the National Council on Measurement in Education. 2021.
23. **Kanopka, K.**, Hernandez, P., Wang, N., Ruiz-Primo, M. A., Li, M., & Minstrell, J. An application of multiple correspondence analysis to the experimental study of item context. In: Annual Meeting of the American Educational Research Association. 2021.

24. Moeller, K., **Kanopka, K.**, & French, J. Venture capitalists as educational actors: Understanding the racialized political economy of silicon valley investments in education technology. In: Annual Meeting of the American Educational Research Association. 2021.
25. Moeller, K., **Kanopka, K.**, & French, J. Venture capitalists as educational actors: Understanding the racialized political economy of silicon valley investments in education technology. In: Annual Meeting of the Comparative and International Education Society. 2021.
26. Ruiz-Primo, M. A., Li, M., **Kanopka, K.**, Hernandez, P., Dong, D., Wang, N., & Minstrell, J. Analysis and review of context in science: Effects in student performance. In: Annual Meeting of the American Educational Research Association. 2021.
27. Alvero, A., Sedlacek, Q., & **Kanopka, K.** A call for critical and constructive data science in teacher education. In: AERA Conference on Educational Data Science. 2020.
28. Claro, S., **Kanopka, K.**, West, M., Loeb, S., & Fricke, H. Exploring the relationship between changes in social-emotional skills and achievement. In: Annual Meeting of the American Educational Research Association (Conference Cancelled). 2020.
29. Ruiz-Primo, M. A., Li, M., Minstrell, J., Dong, D., **Kanopka, K.**, & Hernandez, P. Mapping the characteristics of contexts in science items: The case of forces and motion items. In: Annual Meeting of the American Educational Research Association (Conference Cancelled). 2020.
30. Hernandez, P., Ruiz-Primo, M. A., Zhai, X., & **Kanopka, K.** Validity study of linked items to determine student fundamental ideas. In: Annual Meeting of the American Educational Research Association. 2019.
31. **Kanopka, K.** Addressing defensive objections: Adversarial examples in automatic essay scoring. In: Annual Meeting of the American Educational Research Association. 2019.
32. **Kanopka, K.** Diagnosing non-parallelism in hierarchically contextualized physics assessments. In: Annual Meeting of the National Association for Research in Science Teaching. 2019.
33. Munoz-Najar Galvez, S., **Kanopka, K.**, & Alvero, A. Identifying (dis)continuities in edtech's discourse of invention. In: Text Analysis Across Domains. 2019.
34. Ruiz-Primo, M. A., Li, M., Minstrell, J., Zhai, X., Dong, D., **Kanopka, K.**, & Hernandez, P. Testing the generalization to the domain inference: The use of contextualized clusters of items. In: Annual Meeting of the National Council on Measurement in Education. 2019.
35. Ruiz-Primo, M. A., Li, M., Minstrell, J., Zhai, X., **Kanopka, K.**, Hernandez, P., & Dong, D. Contextualized science assessments: Addressing the use of information and generalization of inferences of students' performance. In: Annual Meeting of the American Educational Research Association. 2019.
36. Zhai, X., Ruiz-Primo, M. A., Li, M., Dong, D., **Kanopka, K.**, Hernandez, P., & Minstrell, J. Using many-facet rasch model to examine student performance on contextualized science assessment. In: Annual Meeting of the American Educational Research Association. 2019.

## Awards and Fellowships

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| 2024 | <b>W. Gabriel Carras Research Award</b> , New York University Steinhardt School of Culture, Education, and Human Development<br><b>Brenda H. Loyd Outstanding Dissertation Award</b> , National Council on Measurement in Education |
| 2021 | <b>Gerald J Lieberman Fellowship</b> , Stanford University<br><b>Summer Internship</b> , Educational Testing Service  |

## Awards and Fellowships (continued)

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2017      **Stanford Graduate Fellowship in Science & Engineering**, Stanford University

## Courses Taught

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### New York University

2024 – . . . .      **APSTA-GE 2094 (APSY-GE 2524)**: Modern Approaches in Measurement  
                         **APSTA-GE 2044**: Generalized Linear Models and Extensions  
2023 – . . . .      **APSTA-GE 2352**: Practicum in Applied Statistics: Statistical Computing

### Stanford University

2023      **EDUC 423B (SOC 302B)**: Introduction to Education Data Science: Data Analysis  
2019      **EDUC 200A**: Introduction to Data Analysis and Interpretation

## Professional Activities

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### Professional Memberships

2017 – . . . .      American Educational Research Association  
2018 – . . . .      National Council on Measurement in Education  
2019 – . . . .      Psychometric Society  
2023 – . . . .      Comparative and International Education Society

### Service to Field

Editorial      New Directions for Evaluation (Editorial Board)  
Reviewer      Educational Measurement: Issues and Practice  
                         Educational Assessment  
                         AERA Open  
                         New Directions for Evaluation  
                         Journal of Leisure Research

### Organized Sessions

2023      **CMStatistics**: Applied statistical and psychometrics issues in measurement (with Daphna Harel)