

MERVE SARAC

Associate Psychometrician, College Board

saracmrv.github.io | linkedin.com/in/mrvsarac | msarac@collegeboard.org | (608) 419-1053

EDUCATION

University of Wisconsin-Madison

Ph.D. in Educational Psychology – Quantitative Methods

July 2023

University of Connecticut

M.A. in Research Methods, Measurement, and Evaluation

July 2018

Bogazici University

M.S. in Secondary School Mathematics Education

July 2016

Bogazici University

B.S. in Integrated B.S. & M.S. Program in Teaching Mathematics

May 2014

EXPERIENCE

Associate Psychometrician, College Board

September 2023 - Present

Project Assistant, Office of Testing and Evaluation Services

September 2020 - July 2023

Research Intern, National Board of Medical Examiners (NBME)

June 2022 - August 2022

Statistical Consultant, Office of Testing and Evaluation Services

November 2021 - March 2022

Research Intern, National Board of Medical Examiners (NBME)

June 2021 - July 2021

Research Intern, American Institute of Certified Public Accountants (AICPA)

June 2020 - July 2020

Lecturer, University of Wisconsin-Madison

August 2018 - May 2020

Graduate Level Courses:

1. Factor Analysis, Multidimensional Scaling & Cluster Analysis
2. Test Construction
3. Statistical Methods Applied to Education I & II

PEER REVIEWED JOURNAL ARTICLES

1. Sarac, M. & Wollack, J. A. (2025). Reducing Score Inflation through Real-Time Routing of Examinees with Preknowledge. *Journal of Educational Measurement*. <https://doi.org/10.1111/jedm.70023>
2. Karagoz Akar, G., Sarac, M. & Belin, M. (2023). Exploring Prospective Teachers' Development of the Cartesian Form of Complex Numbers. *Mathematics Teacher Educator*. <https://doi.org/10.5951/MTE.2022.0034>
3. Araneda, S., Beiting-Parrish, M., Bottoms, B., La Torre, D., McIntee, K., Musa, S., Sarac, M., Shi, Q., Tolentino, L., Tufail, M., & Valdivia Medinaceli, M. (2023, October 27). Statement about the New Edition of the Standards for Educational & Psychological Testing. <https://doi.org/10.31235/osf.io/dv4pa>
4. Sarac, M. & Loken, E. (2022). Examining Patterns of Omitted Responses in a Large-scale English Language Proficiency Test. *International Journal of Testing*, 1-17. <https://doi.org/10.1080/15305058.2022.2070756>
5. Sarac, M. & Feinberg, R. (2022). Exploring the Utility of Nonfunctional Distractors. In M. Wiberg, D. Molenaar, J. González, J.-S. Kim, & H. Hwang (Eds.), *Quantitative Psychology: The 86th Annual Meeting of the Psychometric Society* (pp. 83-93). Springer. https://doi.org/10.1007/978-3-031-04572-1_7
6. Murphy, D., Sarac, M., & Sedivy S. (2022). Why U.S. Undergraduate Students Are (Not) Studying Languages Other than English. *Second Language Research & Practice*, 3(1), 1-33. <https://doi.org/10125/69866>

AWARDS & HONORS

Office of Diversity, Inclusion, and Funding Research Grant (\$600)	2023
Early Excellence in Teaching Award, University of Wisconsin-Madison (\$1,000)	2020
Patricia and Michael Busk Travel Award, University of Wisconsin-Madison (\$500)	2020

SELECT MANUSCRIPTS UNDER REVIEW & IN PREPARATION

1. Grochowalski, J., Ventura, C., **Sarac, M.**, & Hendrickson, A. (under review). AI-Derived KSA Profiles: A Multi-Trait Multi-Method Evaluation of genAI-Augmented Standard Setting. *Journal of Educational Measurement*.
2. Grochowalski, J., **Sarac, M.**, Klein, M., Wan, L., Molin, L. & Hendrickson, A. (in preparation). Evaluating Generative AI as Expert Assessors of Student Skills.
3. **Sarac, M.** & Wollack, J. (in preparation). Mitigating Preknowledge Bias in Multistage Testing.
4. **Sarac, M.** & Wollack, J. (in preparation). Real-time Preknowledge Detection for Computer-based Linear Tests.
5. Karagoz Akar, G. & **Sarac, M.** (in preparation). Developing Meaning of Complex Numbers through Quantitative Reasoning: The Case of Esra. *International Journal of Science and Mathematics Education*.

SELECT CONFERENCE PRESENTATIONS

1. Grochowalski, J., **Sarac, M.**, Klein, M., Wan, L., Molin, L., & Hendrickson, A. (2025, October). Evaluating Generative AI as Expert Assessors of Student Skills. Artificial Intelligence in Measurement & Education Conference (AIME-Con). Pittsburgh, PA.
2. Grochowalski, J., Ventura, C., **Sarac, M.**, & Hendrickson, A. (2025, October). genAI-Augmented Knowledge, Skills, and Ability (KSA) Profiles for Standard Setting. Artificial Intelligence in Measurement & Education Conference (AIME-Con). Pittsburgh, PA.
3. **Sarac, M.** (2025, April). Item Compromise Detection Using Response Times, Scores, and Distractors. *National Council on Measurement in Education*, Denver, CO.
4. **Sarac, M.** (2024, July). Item Compromise and Preknowledge Detection Using Response Time and Distractors. *International Meeting of Psychometric Society*, Prague, Czech Republic.
5. **Sarac, M.** & Wollack, J. (2024, April). Mitigating Preknowledge Bias in Ability Estimates in Multistage Testing. *National Council on Measurement in Education*, Philadelphia, PA.
6. **Sarac, M.** & Wollack, J. (2023, July). Mitigating Bias in Ability Estimates During Routing in Multistage Testing. *International Meeting of Psychometric Society*, College Park, MD.
7. **Sarac, M.** & Wollack, J. (2023, April). Comparison of Likelihood Ratio Test-Based Preknowledge Detection Statistics for Use in Real-Time. *National Council on Measurement in Education*, Chicago, IL.
8. **Sarac, M.**, Feinberg, R., Liu, C., & Ross, L. (2023, April). Longitudinal Analysis of Response Accuracy and Time: Baseline Trends for Compromised Items. *National Council on Measurement in Education*, Chicago, IL.
9. **Sarac, M.** & Wollack, J. (2022, October). Examining Preknowledge Detection Statistics based on Likelihood Ratio Test for Use in Real-Time. *Conference on Test Security*, Princeton, NJ.
10. **Sarac, M.** & Feinberg, R. (2021, November). The Utility of Nonfunctioning Distractors for Credentialing Tests. *Conference on Test Security*, Virtual.
11. **Sarac, M.**, Feinberg, R., O'Donnell, F., & Ong, T. Q. (2021, November). Topic Modeling and Sentiment Analysis of User Feedback: Improving a Score Reporting Dashboard. *Natural Language Processing (NLP) in Assessment*, National Board of Medical Examiners Educational, Virtual.
12. **Sarac, M.** & Wollack, J. (2021, June). Reducing Score Bias Through Real-Time Rerouting of Examinees with Anomalous Responses. *National Council on Measurement in Education*, Virtual.

INVITED TALKS

1. **Sarac, M.** (2023, April). Real-time Detection and Mitigation of Test Fraud in Computerized Tests [Invited research presentation]. Department of Educational Policy, Research, and Administration (Research, Educational Measurement, and Psychometrics Program), University of Massachusetts, Amherst, MA.
2. Wollack, J. A., Gorney, K., & **Sarac, M.** (2023, March). Preventing, Detecting, and Mitigating Cheating on Tests [Invited research presentation]. Department of Educational Psychology, University of Wisconsin-Madison, Madison, WI.
3. **Sarac, M.** (2021, October). Technical Advisory *Test Development Committee (Mathematics)*. The Office of Testing and Evaluation Services, University of Wisconsin-Madison, Madison, WI.

PROFESSIONAL MEMBERSHIPS

1. National Council on Measurement in Education (NCME)
2. American Educational Research Association (AERA)
3. Psychometric Society
4. Conference on Test Security (COTS)

SERVICE

Committees

Conferences	Chair - Diversity Issues and Testing Committee (CODIT), NCME 2024-2025 Artificial Intelligence in Measurement & Education (AIME) SIGIMIE, NCME Large-scale Assessment SIGIMIE, NCME Certification & Licensure SIGIMIE, NCME Educators of Measurement (EoM) SIGIMIE, NCME
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Ad Hoc Reviewer

Awards/Grants	NCME Pipeline Travel Scholarship Proposals · NCME CODIT Mission Fund Proposals · NCME CODIT & Mission Fund Equity in Assessment and Measurement Webinar Proposals · NCME CODIT Invited Paper Session Proposals · NCME CODIT & AERA Division D Equity and Inclusion Committee
Conferences	NCME Annual Meeting Presentation Proposals AERA Annual Meeting [Division D] Presentation Proposals Conference on Test Security Annual Meeting Presentation Proposals
Journals	Journal of Educational Measurement Applied Psychological Measurement

REFERENCES

Amy Hendrickson, Ph.D.
Executive Director, Psychometrics
Learning & Assessment
College Board
ahendrickson@collegeboard.org

James A. Wollack, Ph.D.
Professor
Department of Educational Psychology
University of Wisconsin-Madison
jwollack@wisc.edu