

# 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 86<sup>th</sup> Annual Meeting of the Psychometric Society* (pp. 83-93). Springer. [https://doi.org/10.1007/978-3-031-04572-1\\_7](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/10.125/69866>

## 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

**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](mailto:ahendrickson@collegeboard.org)

**James A. Wollack, Ph.D.**  
 Professor  
 Department of Educational Psychology  
 University of Wisconsin-Madison  
[jwollack@wisc.edu](mailto:jwollack@wisc.edu)