Jiayi Deng

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Education

Ph. D Student | University of Minnesota
Quantitative Methods in Education
Advisor: Joseph A. Rios
Minneapolis, MN | Expected May 2024

Master | University of Kansas
Educational Psychology and Research (Track: Research, Evaluation, Measurement & Statistics)
Advisor: Bruce Frey
Lawrence, KS | May 2020

B.S. (Honors) | Beijing Normal University-Hong Kong Baptist University United International College
Applied Psychology
Research Advisor: Yilung Kuo
Zhuhai, China | June 2018

Employment Experience

Psychometric Intern/Research Associate   05/2022-08/2022
Human Resource Research Organization
Louisville, KY

Graduate Instructor   01/2022-Present
Department of Educational Psychology, University of Minnesota

Graduate Research Assistant   09/2020-Present
Department of Educational Psychology, University of Minnesota

Graduate Teaching Assistant   09/2020-12/2021
Department of Educational Psychology, University of Minnesota

Graduate Teaching Assistant   08/2019-05/2020
Department of Educational Psychology, University of Kansas

Education and Evaluation Assistant   03/2019-08/2019
Center for East Asian Studies, University of Kansas

Publications

A. Peer Reviewed Journal Articles

Deng, J., & Rios, J. A., (accepted). Investigating the effect of differential rapid guessing on population invariance in equating. *Applied Psychological Measurement*.

Rios, J. A., **Deng, J.**, & Ihlenfeldt, S. D. (in press). To What degree does rapid guessing underestimate test performance? A Meta-analytic Investigation. *Educational Assessment*.

Rios, J. A., & **Deng, J.** (2022). *Quantifying the basing effect of rapid guessing on reliability estimates: A simulation and meta-analytic investigation. Applied Psychological Measurement*, *46*(1), 40-52.

Rios, J. A., & **Deng, J.** (2021). Does the choice of response time threshold procedure matter? Implications for identifying rapid guessing behavior. *Large-scale Assessments in Education, 9*(18), 1-25.

Emler, T. E., Zhao, Y., **Deng, J**., Yin, D., & Wang, Y. (2019). Side effects of large-scale assessments in education. *ECNU Review of Education*, *2*(3), 279-296.

B. <u>Manuscript Currently under Revision/Peer-review</u>

Rios, J. A., Abulela, M. M. A., & **Deng, J**. (2022). *A review of rapid guessing scoring approaches in low-stakes multiple-choice assessments.* Manuscript submitted for publication to Applied Psychological Measurement.

C. <u>Manuscript in Preparation</u>

Rios, J. A., & **Deng, J**. (2022). *A comparison of response-threshold scoring procedures in mitigating bias from rapid guessing.* Manuscript in preparation.

Ihlenfeldt, S.D., & **Deng, J.** (2022). *Evaluating rapid guessing response patterns on multistage assessment: A simulation study*. Manuscript in preparation.

Presentation

Deng, J., & Rios, J. A., (2022, April 9). *Investigating the effect of differential rapid guessing on population invariance in equating* [Paper presentation]. National Council on Measurement in Education 2022 Annual Meeting, virtual.

Deng, J., Ihlenfeldt, S.D., & Rios. J. A. (2022, April 22-25). *To what degree does rapid guessing distort test performance? A meta-analytic investigation* [Paper presentation]. National Council on Measurement in Education 2022 Annual Meeting., San Diego, CA.

Ihlenfeldt, S.D., **Deng, J.** (2022). *Evaluating rapid guessing response patterns on a multistage assessment: A simulation study* [Paper presentation]. National Council on Measurement in Education 2022 Annual Meeting., San Diego, CA.

Deng, J., & Rios, J. A., (2022, Feb. 4). *Investigating the effect of differential rapid guessing on population invariance in equating* [Paper presentation]. Department of Educational Psychology Graduate Student Research Day, Minneapolis, MN.

Deng, J., & Rios, J. A. (2021). *Quantifying the Biasing Effect of Rapid Guessing on Estimates of Coefficient Alpha* [Poster presentation]. College of Education and Human Development Research Day, Minneapolis, MN, United States.

Deng, J., & Rios, J. A. (2021, June 8-11). *Does the choice of response time threshold procedure matter? Implications for identifying rapid guessing behavior* [Paper presentation]. National Council on Measurement in Education 2021 Annual Meeting, virtual.

Deng, J. (2021, June 8-11). The *relationship between differential distractor functioning (DDF) and differential item Functioning (DIF): If DDF Occurs, Must DIF Occur?* [Paper Presentation]. National Council on Measurement in Education 2021 Annual Meeting, virtual.

Poggio, J., Akin-Tas, M., **Deng, J.** & Esiaka, C. (2020, Apr 17 - 21) *The nature of country performance differences via distractor analyses: Examining comparability of international assessments outcomes* [Poster Session]. American Educational Research Association Annual Meeting San Francisco, CA, U.S.

Deng, J. (2019, June 6-9). *Impact of isolated word and contextual training on reading fluency and comprehension for chinese children* [Paper presentation]. Chinese American Educational Research and Development Association (CAERDA) International Conference, Xi'an, China.

Teaching Experience
EPSY 5221 Principles of Educational & Psychological Measurement   2022 Spring

Instructor
University of Minnesota

Award & Honor

Hauge Graduate Fellowship   2022-2023
University of Minnesota

Jack Merwin Graduate Assistantship   2021-2022
University of Minnesota

IRC Mini Research Grant   2020-2021
University of Minnesota

Graduate Assistantship Award   2020-2024
University of Minnesota

Scholarship of Education Recognition School   2019-2020
University of Kansas

Current Membership in Professional Organization

American Educational Research Association (AERA)   2019-Present
  - Division D: Measurement and Research Methodology
National Council on Measurement in Education (NCME)   2018-Present

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Professional Service

**Co-Director, In-Progress Research Gala (IPRG) for the Division D
in AERA**   03/2020-Present
  - Lead the IPRG program
  - Organize IPRG monthly meeting
  - Implement the IPRG at the AERA Annual Meeting
**Student Multicultural Affairs Committee Representative, University
of Kansas**   10/2019-05/2020
  - Attend monthly department meeting

Research Interests

- Test-taking Effort and Rapid Guessing Responses
- Process Data Analysis in Educational Assessments
- (Mixture) Item Response Models
- Data Visualization in Education
- Computer Adaptive Test Research
- Population Invariance Issues in Equating and Linking
- Response Invariance of Selected-response Items Between Subgroups

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Research and Computer Skills

- Simulation studies (Advanced)
- Meta-analysis (Advanced)
- R (Advanced)
- SPSS (Advanced)
- HLM (Intermediate)
- IRTPRO (Intermediate)

- Microsoft Office (Advanced)

Language
Chinese (Native speaker)
English (Proficient)