

# Jiayi Deng

[deng0194@umn.edu](mailto:deng0194@umn.edu)

## 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

Human Resource Research Organization

Louisville, KY

05/2022-08/2022

### Graduate Instructor

Department of Educational Psychology, University of Minnesota

01/2022-Present

### Graduate Research Assistant

Department of Educational Psychology, University of Minnesota

09/2020-Present

### Graduate Teaching Assistant

Department of Educational Psychology, University of Minnesota

09/2020-12/2021

### Graduate Teaching Assistant

Department of Educational Psychology, University of Kansas

08/2019-05/2020

### Education and Evaluation Assistant

Center for East Asian Studies, University of Kansas

03/2019-08/2019

## 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. Manuscript Currently under Revision/Peer-review**

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. Manuscript in Preparation**

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**

<b>Hauge Graduate Fellowship</b> University of Minnesota	2022-2023
<b>Jack Merwin Graduate Assistantship</b> University of Minnesota	2021-2022
<b>IRC Mini Research Grant</b> University of Minnesota	2020-2021
<b>Graduate Assistantship Award</b> University of Minnesota	2020-2024
<b>Scholarship of Education Recognition School</b> University of Kansas	2019-2020

**Current Membership in Professional Organization**

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

**Professional Service**

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

**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

**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)